REVITALIZING THE SPIRIT OF BRETTON WOODS

50 PERSPECTIVES ON THE FUTURE OF THE GLOBAL ECONOMIC SYSTEM

The Bretton Woods Committee

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JULY 2019

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ACKNOWLEDGMENTS

The Bretton Woods@75 Compendium is a unique and timely publication, issued to honor a historic year for the Bretton Woods institutions, and during an extraordinary moment in history for the global, rules-based system that they have operated through and helped to strengthen since their inception in 1944. As the world celebrates the historic milestone of the 75th anniversary of the Bretton Woods Conference (formally known as the United Nations Monetary and Financial Conference) in July 2019, the rules-based international economic system and its staunchest supporters face a significant challenge: *how to ensure that the global economic system evolves and endures to meet the challenges of this and the next generation*.

This collection of insightful and forward-looking thought pieces organized by the Bretton Woods Committee is—we hope—an inspiring attempt to respond to such an ambitious question. The Bretton Woods Committee is the nonpartisan network of prominent global citizens that works to demonstrate the value of international economic cooperation and to foster strong, effective Bretton Woods institutions as forces for global well-being. The essays in this volume are authored by a diverse cross-section of the Committee's membership and stakeholder network, though they do not purport to represent the views of all Committee members or to serve as the collective voice of the Bretton Woods Committee.

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The Committee has advanced public understanding of the Bretton Woods institutions through your diligent work. We are most grateful to you for these efforts, and we would urge you to expand the unique and important role which your organization has proved itself capable of performing.

—**A. W. Clausen,** former World Bank President

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FOREWORD

MEG LUNDSAGER
Public Policy Fellow, Wilson Center, and former US Executive Director, International Monetary Fund

ABOUT BRETTON WOODS@75

The Bretton Woods Committee urges global policy makers to recommit to the spirit of Bretton Woods. Seventy-five years ago, this spirit reflected the overarching need to restore global peace and economic prosperity. Establishing the Bretton Woods institutions (BWIs) demonstrated that countries could overcome their resistance to economic cooperation and find common solutions. With nationalist tendencies having resurfaced in the years leading up to the 75th anniversary of the Bretton Woods Conference, the opportunity is ripe for global leaders once again to consider how the international economic system must evolve and endure to meet the challenges confronting our own and future generations.

In response, the Bretton Woods Committee launched Bretton Woods@75: a global dialogue to honor 75 years of economic progress and to revitalize the spirit of Bretton Woods now and for the future. The yearlong initiative consists of three primary activities:

- Global Dialogue Series—a series of conversations among the Bretton Woods Committee membership and global community to debate current and future issues impacting the Bretton Woods architecture, institutions, and Committee. The perspectives accumulated through this series of conferences, seminars, roundtables, virtual conferences, surveys, and blog posts are synthesized on the Committee website at brettonwoods.org.
- Compendium—the present volume, a timely collection of 50 essays from a globally diverse subset of the Bretton Woods Committee's network of thought leaders, providing recommendations for the future of international economic cooperation
- Gala dinner—a celebratory evening that honors the 75th anniversary of the Bretton Woods Conference and promotes the forward-looking ideas generated through the Bretton Woods@75 initiative

The objectives of the broader initiative and of this compendium are twofold:

1. To help global leaders envision how to evolve and strengthen the current rules-based economic system and its collection of multilateral development and financial institutions to address the challenges of tomorrow
2. To encourage and embolden policy makers to recommit to the "spirit" of Bretton Woods and the value of international economic cooperation as a fundamental force for global peace and prosperity

ABOUT THE BRETTON WOODS@75 COMPENDIUM

Within this unique, forward-looking volume, global thought leaders offer their recommendations on how the BWIs and their broad membership can once again deepen cooperation to address current and future economic concerns. The publication is organized around the core issues identified by these leaders. Authors were asked to consider the major trends and issues reshaping the global economy now and into the future, and how the system and institutions should evolve and adapt to enable the next generation to thrive. How can the International Monetary Fund (IMF) remain effective at monitoring and promoting global financial stability and be fit for purpose within the modern financial architecture? How can the World Bank Group (WBG) and the broader multilateral development bank (MDB) system remain central to setting the global development agenda in a rapidly diversifying development landscape? How can the World Trade Organization (WTO) remain the leader of the rules-based trading system and effective adjudicator of modern trade disputes?

Compendium contributors—consisting of current and former policy makers, global financial and business leaders, academic scholars, and thoughtful commentators—believe the BWIs can continue to support and help finance countries' future growth and development. They remind national leaders of the benefits of countries' engagement with and through the IMF, WBG and MDBs, and WTO. Universally, they urge policy makers once again to realize that a renewed spirit of multilateral cooperation can lead to future economic gains for all countries. Contributors' growing awareness of shared challenges and deep interlinkages among countries generated their specific recommendations on how these institutions can adapt to augment their policy choices and provide the financial resources that all their members will need to counter future risks and achieve financial stability and sustained economic development.

In assessing past performance, many of the contributors point to the institutional flexibility that has allowed country officials to overcome divergent views and reach agreement on modifying policy

approaches or augmenting financial resources. Highly adept staff members have broadened their knowledge and learned to partner more effectively with policy makers. A recurrent theme is that the BWIs have helped countries help themselves—to strengthen their economic policy-making tools, to broaden domestic resource bases, to improve attractiveness to foreign assistance and private capital flows, and to open markets to increase trade flows, promoting job creation and growth.

The responsiveness of the IMF and World Bank to member country needs requires adaptability, sensitivity, and often patience. But in responding to requests for help, the institutions themselves deepen their knowledge of effective policy making and can utilize that knowledge in future engagement with countries. As the institutions recognize gaps in their tool kits, they seek a range of possible solutions to help countries find an approach that will work best for their particular economic problems.

Recognizing the importance of *multilateral cooperation while our economic systems undergo continuous change,* authors express deep concerns over the current trends across the membership, most prominently the rising fear of globalization. Public misunderstanding and the inability of political leaders to counter these fears could undermine future progress toward addressing deepening global economic challenges. With these fears in mind, authors point to various aspects of institutional reform that could enable the BWIs to respond to growing cross-border problems even as they continue to work on individual country policy priorities.

Contributors call for all of the institutions to better reflect the changing global economic landscape. The traditional leading international creditor nations have been supplemented and even replaced by rapidly growing emerging-market and developing countries. These countries should have a voice and economic representation in the BWIs that reflects this new reality and deepens their stake in the future of the organizations.

Several authors focus on trust as the underpinning of effective governance and economic efficiency. Countering forces that destroy trust, such as corruption, should be a priority across all multilateral institutions and their members. Understanding how the private sector generates economic prosperity, built on trust among economic agents and policy makers, should be a more prominent BWI focus. Instead of fearing deeper cross-border networks, business leaders and policy makers should use those networks to expand mutual understanding and deepen trust, particularly among the largest trading economies.

Rising uncertainty and increasingly unpredictable economic trends and policy responses are only the start of the changing systems confronting governments everywhere. In response, strengthening *the global economic and financial architecture* remains a high priority. For this purpose, a multiplicity of country groupings has emerged over the past decade, most

geared toward specific shared problems. While some are built on treaty commitments, others are informal groupings of like-minded experts convened to consult on or address particular issues. Those that are based on binding international agreements can apply enforcement tools to promote the goals of these agreements, but even such agreements face obstacles to promoting actions to achieve their goals, as highlighted in several authors' focus on eurozone challenges. Overseeing the way countries manage exchange rates, a key task of the IMF, also illustrates the challenges of monitoring commitments. Other institutions have formed more informally to bring together policy makers tasked with specific responsibilities. Gatherings of financial regulators allow them to share worries and ideas for tools to strengthen financial-sector resiliency, leaving national officials to determine how best to apply these tools in their home countries.

The development institutions' historical focus on providing financing to reduce poverty is less explicitly highlighted in this volume, but that goal permeates many of the recommendations. Authors focusing on the *new development landscape* prioritize advice on how to foster internal economic development, how to make developing economies more flexible and resilient, and how to generate more internal resources by galvanizing private-sector job creation. These are the tools needed to reduce poverty. Countries are seeking knowledge transfer from the BWIs that will enable them to promote growth, job creation, and rising living standards. By establishing sound domestic institutions, private-sector finance can play a larger role in development, particularly infrastructure. Development experts urge the institutions to bring innovative suggestions to policy makers that will build trust among partners and within economic networks. In this manner, future development needs will be more readily financed by private and domestic sources, and less by aid flows.

The most serious concerns regarding institutional effectiveness are focused on the *global trading system and the central role of the WTO*. Concerns about the policies of larger countries and the limited ability of WTO members to reach agreement on the most pressing priorities preoccupies these experts. They fear the spread of nationalism and the growing inability of leaders or citizens to see the gains from international trade. Multilateral agreement appears out of reach, perhaps even completely sidelining the WTO. Nonetheless, some countries are forming plurilateral trade agreements that could form the basis for future wider agreements. Authors look to the world's largest trading countries to find the will to change misperceptions, address the fears of deeper integration, and use the tools of the multilateral trading system to help restore trust.

Contributors to this volume universally contend that the BWIs are needed just as much today as they were decades ago. While the immense challenge of rebuilding the global economy 75 years

ago appeared overwhelming, countries overcame their distrust and found areas for cooperation. These circles of cooperation broadened over the years as more countries sought to join these systemic institutions and benefit from that membership. Looking ahead, we all face daunting *forces of change*, ranging from climate change to cross-border migration to acquiring the skills to utilize increasingly sophisticated technologies, all while living through wider economic fluctuations. These authors tell us to use our multilateral institutions, draw on their experience and expertise, and seek a common understanding of the way forward to mitigate the impacts of adverse developments and more effectively utilize the wealth of advances our interlinked global economy has produced.

The range of challenges facing the global community and the urgency of cooperating to find solutions call for countries to renew the spirit of Bretton Woods. Our Committee believes the recommendations presented in this volume can stimulate dialogue on the critical importance of the BWIs in addressing shared problems. We urge the broad membership of these institutions to heed these recommendations and recommit to discussion and cooperation. The Bretton Woods Committee will continue to promote broader understanding of the IMF, World Bank, and WTO, and will remain steadfast in supporting their objectives.

The Bretton Woods Conference was attended by 730 delegates representing all 44 Allied nations. Here, delegates are addressed by conference president Henry Morgenthau Jr.

Source: Bettmann/Getty Images

THE SPIRIT OF BRETTON WOODS

Past, Present, and Future

THE SPIRIT OF BRETTON WOODS

PAUL A. VOLCKER
Chair Emeritus, Bretton Woods Committee, and former Chair, Federal Reserve System

I'm at an age when one becomes conscious that, incrementally or with a sudden insight, interpretations of past events change radically. For me, that has been true with respect to the institutions born in the midst of World War II at an international retreat amid the mountains of New Hampshire.

I first learned of the "Bretton Woods Conference" as a student. It was widely and rightly acclaimed as a remarkable achievement. Years of prewar depression and crisis, culminating in "beggar-thy-neighbor" economic policies and the destruction of war, would be replaced by a structure of cooperation and open markets, anchored with fixed exchange rates, all with a focus on economic growth. The new International Monetary Fund and the International Bank for Reconstruction and Development would be the formal instruments for monitoring and enforcing a "rules-based" system of exchange rates, stability, and orderly economic development. A stable United States dollar convertible into gold at a fixed price was at the core.

I was a devoted servant of the Bretton Woods system under Bob Roosa, undersecretary of the US Treasury for monetary affairs in the early 1960s. He clearly considered defense of the system as more than a matter of economic policy. It was a moral calling for the United States, having emerged from the great war with unquestioned strength and a sense of mission.

By the early 1970s, when I became undersecretary of the Treasury for monetary affairs, growing tensions in international markets and increasingly visible strains in the international monetary system became impossible to reconcile within the central requirement of dollar convertibility into gold at the price of US$35 per ounce established in the 1930s.

I was alive and present on that fateful day, August 15, 1971, when President Nixon accepted the recommendation to suspend convertibility.

I vigorously argued then that the system could be rebuilt, with "modern" additions we could visualize: the use of the newly created Special Drawing Right, a new rule book to guide the adjustment process, and fatefully, some "escape valve" for the limited floating of exchange rates.

It was not to be. One difficulty was that the United States itself failed over the decade of the 1970s in its basic responsibility of maintaining the domestic stability of its currency. Repetitive oil and financial crises undermined a sense of collective responsibility for the financial system and economic development. Sharp fluctuations in exchange rates upset competitive relationships.

The International Monetary Fund and World Bank seemed to recede into the background, unable to cope with the disturbances. But they survived, and that was important.

They symbolized the ideal of Bretton Woods—the belief in a common interest in international cooperation, the importance of certain basic rules of good behavior with respect to exchange rates, and the need for development among the multitude of "emerging" nations. Quite specifically, the Fund was called upon to undertake a central role in resolving a succession of financial crises in the "emerging" world in the 1980s and 1990s.

To that extent, the spirit of Bretton Woods is alive—but not yet fully secure. The rise of new economic powers—first Japan, then China—and now the internal tensions within the eurozone—pose new challenges for cooperation. The political uncertainties within the United States itself could become the greatest threat.

That is why the Bretton Woods Committee remains relevant.

We won't restore the fixed exchange rate system as it existed in the 1950s and 1960s—nor do we need to.

We won't forever maintain a single national currency as the essential keystone of the system, nor should we want to.

We won't provide the same volume of official development assistance—nor do we need to.

But *we do need* recognition of some basic elements of "good behavior" if the international financial and trading system is to flourish.

We do need to recognize that exchange rate practices are inherently multinational and that greater stability can be an international good.

We do need appreciation of the need for international standards with respect to technology and its multiplying uses.

We do need to avoid trade discrimination in services as well as goods.

We *certainly need* to recognize that corruption is not only a "cancer on development" but a bleeding scar on fair trade.

We *certainly will need* the leadership and ample financial resources for the Fund and the Bank when new

international financial crises arise, as they surely will.

So let's keep the spirit of Bretton Woods alive as we rethink the specific requirements of the new world. It is a world without the single national focus of leadership that we once took for granted. The growing challenge of "my country first and only" in a world in which the fortunes of all nations are irretrievably tied together needs to be recognized with a clear response.

Mission impossible?

That is to ask no more than the response to the challenge faced at Bretton Woods after the years of deconstruction of World War II. The risks are real—economic, political, military. They must be dealt with. Many more countries demand a seat at the table. Maybe a grand new conference to reach conclusions and enforce reform is beyond any present possibility. But surely a study and debate of new approaches is much in order. That is where the Bretton Woods Committee can help lead the way in new thinking for the 21st century.

THE BRETTON WOODS MISSION

Before, Then, Now

RICHARD A. DEBS

International Council Chair, Bretton Woods Committee; Advisory Director, Morgan Stanley; former President, Morgan Stanley International; and former Chief Operating Officer, Federal Reserve Bank of New York

It is not an overstatement to say that the individuals who met in Bretton Woods, New Hampshire, in 1944 set a course that changed, and remarkably improved, the way the world worked. The objective and mission of the Bretton Woods Conference has continued to guide global policy makers for decades since then—until now, 75 years later. But now, challenges to the spirit of Bretton Woods have emerged from many political leaders in many countries. Multinational cooperation, which is the keystone of the Bretton Woods system, is being rejected in many quarters, and isolationist nationalism has been reemerging. Where does the future lie? Is this just a passing phase in global history, or is it a more extended period during which the Bretton Woods ideals are rejected and there is a reversion to what the world was like before 1944? It may be too early to answer that, but in attempting an answer, it would be illuminating to compare the pre–Bretton Woods period with the post–Bretton Woods period.

PRE–BRETTON WOODS

It is difficult, if not impossible, to summarize history, but in general, prior to Bretton Woods, relations between countries were often dictated by national political leaders with parochial, nationalistic self-interests that resulted in commercial conflict, trade wars, aggressive economic and financial measures, and in many cases, military action and ultimately wars—wars that killed their own citizens as well as those of their adversaries and caused destruction in all of the nations affected. Apart from ad hoc alliances that often changed partners, diplomacy was based on confrontation rather than cooperation in political and military affairs, and competitive beggar-thy-neighbor trade policies with little or no concern for or vision of what the

long-term adverse effects of these strategies might be on their own countries. The idea that prosperity and stability could better be achieved by one country if other countries with which it had relations had a sufficient level of prosperity and stability, instead of poverty and instability, was not considered.

On a global basis, rules of law did not exist. There were attempts over the years by legal scholars aiming to codify international rules of law, and some were recognized by some nations in principle, but the execution of any rule was impossible if a sovereign nation or agency did not wish to comply. There were, of course, rules agreed to in treaties between some nations, but their geographic coverage was not extensive, and their content was not comprehensive. There were also rules that had widespread application among groups of nations within extensive empires, such as the Ottoman, the British, the French, and the Spanish. But these were laws dictated by the imperial rulers and had no jurisdiction beyond the empirical borders. They were not international law.

It is noteworthy that the domestic rule of law within each nation was in many cases propagated by authoritarian leadership with virtually no representation by the people of the country. In these cases, the leadership was not constrained by its public in formulating and executing foreign policy vis-à-vis other nations. If the leadership decided to use military force as a result of such policy, the citizens had to bear the risks of warfare. The usual outcome of such wars was that "to the victors go the spoils," which had the effect of punishing the people of the defeated country—usually through economic measures. The idea of helping the defeated population recover from the effects of war—to try to support stability and a minimum standard of living—was often beyond consideration by the victors.

In the earliest days, when the world was fragmented geographically, and time, distance, and communication among countries were a major political and economic barrier, such a strategy might not have been workable. But later, as the years went by, time, distance, and communication between countries and individuals were no longer a barrier. Communication came to be virtually instantaneous, and global transportation developed to provide rapid access to any other place in the world for individuals, businesses, governments, and indeed armed forces. Yet even into the 20th century, the foreign policy strategies of most nations continued to be based on trade wars, commercial conflicts, currency manipulation, land aggrandizement—all backed up by the implicit—or explicit—threat of military force.

THE PRE–BRETTON WOODS 20TH CENTURY

During just the first half of the 20th century, leading up to the Bretton Woods Conference in 1944, the world suffered two disastrous world wars, during which millions of people around the

world were killed and maimed; and in the remaining years, between the two wars, there was a global depression that created economic chaos, poverty, and degradation, and severely affected the lives of millions of people throughout the globe. That is the record of the decades just prior to Bretton Woods.

As a result of the First World War, the people of the defeated countries suffered particularly severely, without any external help from the victors, who focused primarily on dividing the spoils of war among themselves. The Paris Peace Conference was primarily concerned with reparations and with geographic redistributions of territory formerly held by the defeated countries. Indeed, the boundaries of the countries of the Middle East were literally redrawn by senior officials of the Allies, sitting in Paris and London. Subsequently, the League of Nations was formed under the leadership of President Wilson in 1920, with the stated objective of maintaining world peace. Unfortunately, it was not given support by the international community of that period, and it certainly did not achieve its objective of maintaining world peace in the years that followed.

Following the Paris Peace Conference, global trade and commerce were dramatically reduced in size, caused in large part by the Smoot-Hawley legislation in the United States, whereby a protectionist Congress raised tariffs by about 45 percent. US imports decreased by about 65 percent. Ironically, the long debate leading to the final enactment of that law in 1930 was a major contributing factor to the 1929 stock market crash in the United States, ultimately affecting the entire world. The impact of the subsequent world depression affected people around the globe and had a particularly onerous effect on the people of the conquered countries, who had already suffered the losses of the postwar period—all of this resulting in the growth of nationalist fascism in Germany and Italy. Hitler and Mussolini and their nationalistic parties took power, and the seeds of the Second World War were planted and soon blossomed. By 1944, World War II had caused massive death and destruction, and the war was still not over.

This entire period was what the delegates gathering in Bretton Woods had lived through themselves. By 1944 they knew the world wasn't working well, and they set forth to bring about change.

POST–BRETTON WOODS

In July 1944, as it appeared hopeful that the world war would be coming to a successful end for the Allies, senior financial experts from 44 countries gathered in Bretton Woods for meetings called The United Nations Monetary and Financial Conference. Stories about the conference abound, one of which is about the arguments between John Maynard Keynes of the UK and Harry Dexter White of the United States regarding which currency—the dollar or the pound—should underpin the new proposed international financial regime.

White and the US dollar won that particular argument, but that was a minor part of the conference's mission. That mission, in the words of US Treasury Secretary Henry Morgenthau, was that the conference should "do away with the economic evils—the competitive devaluation and destructive impediments to trade—which preceded the present war."[1] In many respects, the conference succeeded in doing that. Overall, the basic mission of the conference was to avoid the mistakes made in the past by narrow nationalistic policies, which too often led to conflict and deadly wars. The objective was to aim for a relatively peaceful, stable, and productive world, supported by mutually beneficial rules of law and assistance to those who needed it, all with the goal that every country would benefit by inhabiting such a world. The basic path to that goal was through international economic cooperation—that is, cooperation on a global scale.

In the initial phases, the institutional structure that emerged was the creation of the World Bank, the International Monetary Fund, and a currency regime based on gold and the US dollar. Other institutional arrangements were also discussed but not adopted at that time, including the concept of a world trade organization. Many other multinational institutions—for example, the Organisation for Economic Co-operation and Development (OECD), the Financial Stability Board, NATO, and indeed the European Union—were established in subsequent years, not directly born at, or succeeding from, the Bretton Woods Conference but nonetheless reflecting the widespread recognition of the value of multinationalism.

At the same time that the Bretton Woods Conference was being organized, preparations were being made for the establishment of what came to be the United Nations. That institution traces back to 1942 as a wartime measure, with members pledging their resources against the Axis enemy. It developed into a postwar international organization based on the principle of collective security. Its charter was signed by 50 nations in 1945. The objectives of the UN and the Bretton Woods mission as they were then organized were similar in spirit: based in general on multilateral cooperation, different in specific objectives, but in support of each other's goals.

The establishment of a world bank was a major achievement of Bretton Woods. Its original name was the International Bank for Reconstruction and Development (IBRD): *reconstruction* to deal with the devastation of the Second World War, and *development* over the long term for the less-developed countries suffering from poverty and instability. Its membership grew to include virtually all countries of the

1 Henry Morgenthau Jr., "Closing Address to the Conference" (Speech given at United Nations Monetary and Financial Conference, Bretton Woods, NH, July 1944), https://www.cvce.eu/obj/closing_address_by_henry_morgenthau_jr_22_july_1944-en-b88b1fe7-8fec-4da6-ae22-fa33edd08ab6.html.

world, all of which subscribe to, and are governed by, Bretton Woods rules—rules that apply to both borrowers and lenders. It was a new concept on an international scale, and it worked. It has had growing pains over the many years that it has been in operation, but generally it has been very successful in achieving its objectives. The World Bank Group's operations have grown in scope and breadth, and now include, in addition to the IBRD, the International Development Association, a vehicle that provides interest-free loans and grants to the poorest countries, as well as significant debt relief; its private-sector arm, the International Finance Corporation, which makes equity investments and loans as well as providing advisory services; and the Multilateral Investment Guarantee Agency, which provides political risk insurance.

The mission of the Bretton Woods Conference was also reflected in activities undertaken unilaterally by the United States, and then ultimately by other nations, to establish foreign aid agencies. The most innovative and remarkable program—the Marshall Plan—began with a speech in 1947 by then Secretary of State General George C. Marshall, a wartime hero, who called for a comprehensive program to rebuild Europe—a Europe that included former enemy Axis countries. This plan was succeeded by additional US foreign aid programs, such as the Point Four Program, as well as a variety of other specialized agencies, all of which were brought together and finally institutionalized in 1961 with the establishment of the United States Agency for International Development (USAID). By then, most other developed countries had also established national foreign aid agencies and were participating as members in other international development agencies such as the Inter-American Development Bank and the Asian Development Bank.

In the early postwar period, these agencies financed the reconstruction of countries that were affected by the war, including the Axis countries, the populations of which sorely needed help. All of these efforts were based on the recognition that poverty and instability should be fought throughout the world in order to support world prosperity and stability. All major nations today maintain aid agencies based on the principles that were first put forth by the Bretton Woods Conference in its creation of the World Bank.

Apart from the issue of reconstruction and development aid on a global basis, as institutionalized in the World Bank, the Bretton Woods Conference was also focused on the issue of world trade. Looking back to the experience of the 1920s and 1930s, when high tariffs, competitive currency devaluations, and discriminatory commercial practices destabilized the world, US President Roosevelt and UK Prime Minister Churchill shared the view that free trade not only was good for the economy but also helped ensure peace in the world. This belief was reflected in the Atlantic Charter of 1941, issued by Roosevelt and

Churchill, which included a commitment by both countries "to further the enjoyment by all states, great or small, victor or vanquished, of access, on equal terms, to the trade and to the raw materials of the world which are needed for their economic prosperity." They also committed to "the fullest collaboration between all nations in the economic field with the object of securing, for all, improved labor standards, economic advancement, and social security" and to "respect the right of all peoples to choose the form of government under which they will live."[2]

Preparatory work was done at the Bretton Woods Conference on how to structure an institution to deal with the trade issue, but obstacles arose in part because the British Commonwealth had its own preferential system of tariffs and the Smoot-Hawley tariffs were still in effect in the United States. After much work, three years later, agreement was reached on the General Agreement on Tariffs and Trade (GATT) and a draft charter for the International Trade Organization (ITO). The ITO was not adopted because of opposition by the United States, but GATT was adopted, and it governed international trade for about 50 years, proving successful in meaningful rounds of tariff reductions. Agreement was finally reached on a new trade institution, to be known as the World Trade Organization (WTO), in 1995.

Since then, the work of the WTO and the important role it has played in various trade agreements among its member countries has increased world trade. In recent years, however, while acknowledging the achievement of increased trade, there has been criticism of the terms of such treaties and their perceived negative impacts on domestic businesses and labor conditions. The present US administration itself has criticized the WTO and has also withdrawn from treaties in which the United States had long been a leading member. Although it is early in the game, if this trend continues it could have a detrimental impact not only on world trade, but also on domestic economic conditions affected by the results of any trade wars.

Together with the World Bank, the other most important institutional change was the establishment of the International Monetary Fund (IMF). Its objectives, as stated in its Articles of Agreement, are to promote international monetary cooperation, international trade, high employment, exchange rate stability, sustainable economic growth, and making resources available to member countries in financial difficulty. Upon its founding, one of its important functions was to oversee the fixed exchange rate arrangement that was agreed to at the time, based upon the dollar and gold. The fixed exchange rate arrangements were abandoned in the 1970s, but oversight of exchange rate arrangements between

2 "The Atlantic Charter" (Declaration of principles issued by the president of the United States and the prime minister of the United Kingdom, Placentia Bay, Newfoundland, Canada, August 14, 1941), https://www.nato.int/cps/en/natohq/official_texts_16912.htm?.

countries continued to be a responsibility of the IMF. In one basic sense, the IMF's primary responsibility is to ensure the stability of the international monetary system. The fund's mandate was expanded in 2012 to include all macroeconomic and financial-sector issues that bear on global stability. The institution has been crucial in supporting and strengthening global stability by dealing with financial crises that have arisen over the years in a variety of countries around the world.

The IMF's role with respect to a fixed-rate exchange regime changed dramatically during the Nixon administration in the United States. In 1971, Nixon announced his New Economic Policy (known abroad as the "Nixon shock"), which froze prices and wages, and suspended the dollar's convertibility into gold—the underlying basis for the fixed-rate regime. This policy led to the Smithsonian Agreement, whose "agreed" regime did not last long, and after several other experiments, it wasn't until 1973 that the current regime of floating exchange rates was established and followed.

At that point, some observers said that the Bretton Woods system was dead. Some journalists and politicians began to wonder aloud whether there was any need to have an IMF or indeed the Bretton Woods institutions in general. Some of the other measures taken by the US government at that time—such as an extra 10 percent tariff on imports, or the process by which the whole issue was handled unilaterally by the United States, with the Treasury Secretary saying to the world that "the dollar is our currency, but it's your problem"—seemed to reflect a tilting back to the days before Bretton Woods.

However, reality soon set in with the emergence of new international crises to be dealt with: the oil embargo of 1973, the oil price shocks of 1974 and 1979, the petrodollar recycling crisis of 1974 through 1980, the resultant growth of the Latin American debt crisis in the decade of the 1980s—all against the background of raging inflationary pressures in the United States and other major countries—presented major challenges. In that atmosphere, it became clear that the Bretton Woods system should not be declared obsolete and that the IMF's role in dealing with these new challenges should be strengthened, not weakened. Any talk of the demise of the Bretton Woods institutions was dismissed by US Treasury Secretary Henry "Joe" Fowler, who stated that if we didn't have the IMF today, we would have to invent one in a hurry. Secretary Fowler was also instrumental in recognizing that, until then, the Bretton Woods institutions did not have any public constituency that would be knowledgeable or influential enough to assess and support them. Together with other senior officials and financial experts, he helped organize the Bretton Woods Committee in 1983. Since then, the committee has expanded internationally and performed the role of constructive critic and supportive public observer.

NOW—75 YEARS LATER

It should seem clear from a comparison of the pre–Bretton Woods era to the post–Bretton Woods era that the Bretton Woods approach was by far the preferred route to follow—for any country, and for every country. History has proven that a nationalistic, isolationist, protectionist approach to dealing with other countries of the world can lead, and has often led, to instability, conflict, and wars. The 75 years of the Bretton Woods era, based on international cooperation, has not suffered any global wars or global depressions, and has enjoyed relative stability—certainly relative to the decades before Bretton Woods. It has been a period during which the world has had to deal with inevitable economic and social challenges and even serious crises, but not worldwide war and depression. There have been regional wars during this period, and hundreds of thousands of people have suffered from them, but nothing on the scale of global wars. There were the years of the Cold War, but those tensions were also dealt with, without turning them into a hot war.

There are other notable differences between the pre– and post–Bretton Woods periods. The first is the birth of nuclear weapons and their subsequent availability to many nations. The damage wrought to the world in the event of a war employing those weapons would be catastrophic. Foreign policies should be aimed at minimizing the risk of war, not permitting the risk to increase by aggressive, warmongering tactics.

Another difference is in the much closer integration of the affairs of all countries. The world has indeed become the global village. Communication, transportation, finance, business, medicine, entertainment, manufacturing, employment have all become globally connected. Some of the effects of globalization in domestic economies have been criticized, with justice, but most of the problems cited can be resolved by adjustments, both domestically and internationally, through cooperative negotiation. Today, a nation cannot be an island unto itself and must deal with, and be part of, an increasingly interdependent world.

Another difference between pre– and post–Bretton Woods is the fact that there are more democracies in the world now than there were then. This welcome result cannot be attributable solely to Bretton Woods, but it was implicitly encouraged and supported by the reforms of the Bretton Woods conference and articulated by those leaders who led the way with world reform in the 1940s, beginning with the precepts of the Atlantic Charter.

So the question remains: Today we see a reversion to many of the economic and political policies and practices that were common pre–Bretton Woods. We see the development of nationalism, isolationism, and protectionism, reflected in inward-looking economic and political policies. In recent years, these tendencies have been evidenced in several countries. If they continue to develop further, the people of the world may find themselves

set back to the troublesome days of life before Bretton Woods. Therefore it would be most timely, in celebrating the 75th anniversary of the Bretton Woods Conference, to recognize its long-proven value and further strengthen the policies, practices, and institutions that were inspired by the Bretton Woods mission of international cooperation.

In the words of Paul Volcker, who was once chairman of the Bretton Woods Committee, "'Bretton Woods' is not a particular institution—it is an ideal, a symbol, of the never-ending need for sovereign nations to work together to support open markets in goods, in services, and in finance, all in the interest of a stable, growing, and peaceful economy."[3]

3 Paul A. Volcker, "The Future of the Global Financial System" (Remarks by Paul A. Volcker at the 2017 Annual Meeting of the Bretton Woods Committee, The Volcker Alliance, New York, NY, April 19, 2017), https://www.volckeralliance.org/publications/future-global-financial-system.

RETHINKING MULTILATERALISM FOR OUR FUTURE WORLD

JAMES D. WOLFENSOHN
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The world of today looks starkly different than the world of 1944. When you consider several of the tectonic shifts occurring before our eyes—economic power, demographics, technology, and climate among them—and you consider the velocity at which change is occurring, it's safe to surmise that the world of the next 75, 50, 25, or even 10 years will seem very unfamiliar. Below are some of the challenges, at least as I see them, and a few thoughts on how we will need to respond if we hope to advance peace, prosperity, and the well-being of humanity.

A CHANGING GLOBAL LANDSCAPE

The only thing we can guarantee is that the players who are shaping our world tomorrow will be very different than those who have shaped it to date. Any number of forecasts tell a similar story. A recent Standard Chartered Bank report looking ahead to only 2030 ranks China and India as first and second, respectively, among the largest world economies by nominal GDP. The United States comes in at number 3, and the only EU country in the top 10 is Germany, coming in below Indonesia, Turkey, Brazil, and Egypt at number 10.[1] Advanced economies that, together, once contributed 80 percent of global GDP are projected

1 Enda Curran, "These Could Be the World's Biggest Economies by 2030," *Bloomberg*, January 8, 2019, https://www.bloomberg.com/news/articles/2019-01-08/world-s-biggest-economies-seen-dominated-by-asian-ems-by-2030.

to account for only 43 percent in the coming decades.[2]

Conversely, Asian economies currently on the rise will come to dominate. By 2050, the leading seven emerging-market countries (China, India, Indonesia, Brazil, Russia, Mexico, and Turkey) are poised to represent double the collective size of the G7 countries.[3] Vietnam, the Philippines, and Nigeria will all likely rise into the world's top 20 economies.[4] And Africa is poised to become an economic engine as its population approaches 2 billion in 2050.

Clearly, the economic strength of the West is weakening, and these dramatic shifts in the balance of power stand to have profound effects on the future governance of our global economic system. We have come to accept that the International Monetary Fund (IMF) and the World Bank are the natural leaders of the international community, residing as they do in Washington. But there will be no reason why China and India do not demand a leading position in the organization of the international community. China has already applied its global influence to bring together most of the nations of the world to be shareholders in a new global investment bank (The Asian Infrastructure Investment Bank, or AIIB) led by China—an institution that can do much of the work currently done at the World Bank. In addition, many of the developing countries may create and use their own institutions to provide for themselves better-adapted services and financial backing as a real alternative to current options. With the world changing in this way, new leaders will emerge and new centers of power will develop, changing our traditional system of organization in international finance.

Frankly, the system can no longer be molded by or for the West. For the past 75 years, the Bretton Woods institutions have evolved in the context of a unipolar monetary system dominated by the US dollar. Following the collapse of the Bretton Woods fixed exchange rate system in the early 1970s, the brand of multilateralism that emerged was limited in scope and organized around the leadership of the G7. This group, while economically powerful, was and is ill equipped to address problems such as inequality between the world's advanced economies and the so-called "periphery." And, despite globalization's great successes, many among the G7 are now facing rising populism and economic nationalism, in part from the widening inequality divide that has occurred within their nations.

The unequal distribution of the benefits of growth presents a major threat

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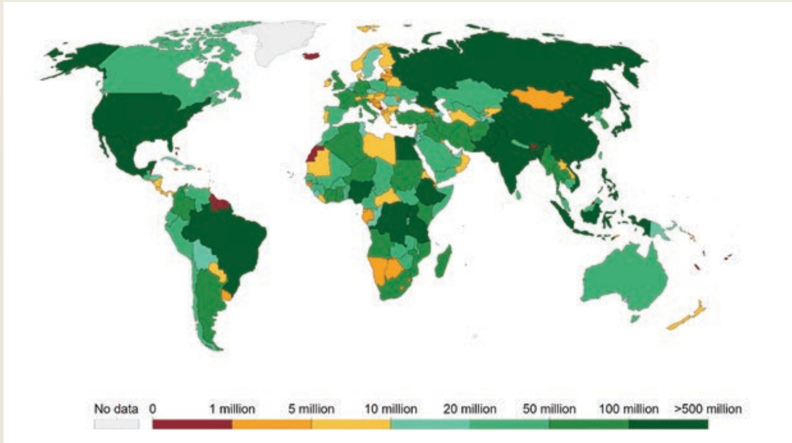
2 Organisation for Economic Co-operation and Development (OECD), "Looking to 2060: Long-Term Global Growth Prospects—Bloomberg Brief," OECD, November 9, 2012, http://www.oecd.org/eco/lookingto2060long-termglobalgrowthprospects.htm.

3 PricewaterhouseCoopers, "The World in 2050: The Long View—How Will the Global Economic Order Change by 2050?" (PwC UK, London, 2017), https://www.pwc.com/gx/en/world-2050/assets/pwc-the-world-in-2050-full-report-feb-2017.pdf.

4 PricewaterhouseCoopers, "The World in 2050."

FIGURE 1.
POPULATION PROJECTION BY THE UN, 2050
Figure shows medium-variant projection by the UN Population Division.



SOURCE: UN Population Division, *Our World in Data*, 2017 revision, https://ourworldindata.org/future-population-growth. Reproduced under Creative Commons license.

to global economic progress. In the postwar era, one-sixth of the world's population held 80 percent of its wealth. This was the reality of the world in which I grew up, and I was determined over the course of my career to address the needs of the other five-sixths of the world. With the turn of the 21st century, the pendulum began to swing in the direction of increased equality. Yet still today, approximately 80 percent of global GDP goes to only 20 percent of the world's people. But there is hope. There is potential to begin to flip the script if we can achieve rapid growth in emerging and developing economies and put resources to good use in service of all their people.

In the modern era, we will also need leaders steering a global development agenda who recognize and respond to the demographic forces shaping our planet. According to the UN, more than half of the anticipated growth in global population between now and 2050 is expected to occur in 10 countries: India, Nigeria, the Democratic Republic of the Congo, Pakistan, Ethiopia, Tanzania, the United States, Uganda, Indonesia, and Egypt (figure 1).[5] By 2050, Africa will make up 25 percent of the world population, and

5 United Nations Department of Economic and Social Affairs (UN DESA) Population Division, "World Population Prospects: The 2017 Revision, Key Findings and Advance Tables" (Working Paper No. ESA/P/WP/248, UN DESA Population Division, New York, NY, 2017).

India will have surpassed China as the world's most populous country.[6]

Youthful populations in these countries will be the drivers of global economic expansion as graying populations in advanced economies cause economic growth to slow. Globally, the number of people 60 and older is expected to double by 2050, and the greatest percentage of this senior population will be in Europe.[7] A shrinking working-age population in the euro area is projected to cause an average decline in its output growth of -0.2 percent annually beginning in the 2020s.[8] A growth counterbalance will be needed. Attention to improving the climate for investment in the countries that lead population expansion will be essential for job creation among their young people, who will fuel the lion's share of future global growth.

Technology will most likely have the biggest impact on the labor force of the future—and we need global leaders who can anticipate the resulting disruption and will collaborate to capitalize on the opportunities. In 2016, the World Bank estimated that up to two-thirds of all jobs in developing countries are susceptible to automation in the next few decades.[9] In addition, nearly two-thirds of current primary school students will be employed in jobs and industries that do not currently exist. Factories will no longer be staffed by thousands of people. A production line that once employed 50 people can now be staffed by two machines that can turn out risk-free products in a way that the founders of the Bretton Woods institutions could never have imagined. But between our existing multilateral and regional development banks, the private sector, and other sources of development finance, we have collective knowledge and pools of resources that can be catalyzed in innovative ways that were equally unimaginable in 1944.

Any development model that can hope to engage people in a technologically driven labor market must emphasize not only job creation but also education. The educational challenge in lower-income countries is to improve their education system enough so that students leave school with the skills they will need for a better life and productive work. The report of the International Commission on Financing Global Education Opportunity[10] warns

6 UN DESA Population Division, "World Population Prospects."

7 UN DESA Population Division, "World Population Prospects."

8 European Commission, Directorate-General for Economic and Financial Affairs, "The 2018 Ageing Report: Economic & Budgetary Projections for the 28 EU Member States (2016–2070)" (European Economy Institutional Paper 079, European Commission, Brussels, Belgium, 2018), https://ec.europa.eu/info/sites/info/files/economy-finance/ip079_en.pdf.

9 World Bank, "World Development Report 2016: Digital Dividends" (World Bank, Washington, DC, 2016). These estimates are aggregate numbers that combine all economic sectors (namely, agriculture, industry, and services).

10 International Commission on Financing Global Education Opportunity, "The Learning Generation" (The Education Commission, New York, NY, 2016).

that only one-half of students in primary schools and little more than a quarter of children in secondary schools in low- and middle-income countries are learning basic academic skills, and higher education institutions are not responding adequately to the need for new technical skills. The countries that are the most able and quickest to respond to this learning crisis will be the future's economic leaders.

Already, we have seen the prominence of East Asian countries in leading the league tables in academic performance, and new centers of science and technology have arisen in China, India, and South Korea. We need similar progress in Africa and South Asia. Young people need to adapt their professional objectives and pursue training for new occupations and technologies. Without assistance, however, their efforts will hardly be an adequate response. Resources must be allocated to upgrade the skills of the labor force as well as develop holistic social protection systems that can support the needs of dislocated workers.

It has also become apparent that countries benefit when women participate in economic and civic activities. International indicators show that women's educational levels have risen significantly in recent decades, reaching levels similar to (or higher than) men's, except in the poorest countries or marginalized populations. Eliminating gender-based prejudice in the workplace and taking down legal barriers for women to own land or hold wealth will further strengthen this positive trend, allowing women to take more leadership positions in governments and private enterprise. Advancing gender equality as a global norm ensures that economic progress benefits more people.

My support for countries' efforts to build their human capital through investments in education, health, and social protection programs comes from my deep belief that the governments and citizens of countries should be the primary movers of their development agenda. Literate and able citizens are a robust foundation on which to build progress, but the rule of law and citizen participation should also be part of that foundation. Perhaps for the first time in the history of the World Bank, as its president I spoke strongly—and repeatedly—against weak governance and corrupt practices that squander valuable resources and stall social and economic progress. With so much change on the horizon, good governance and transparency will be critical tools for establishing confidence and trust between public institutions and citizenry.

In the past two decades, pandemic events, violence, and terrorist activities worldwide have reminded us time and again of how suddenly and quickly human lives and talent can be lost. Public health programs and medical innovations have prolonged and improved lives, but there is a continuing role for global institutions to support initiatives that increase global preparedness for threats to health. And I believe that there is a role for global leaders to work with national leaders to fight

insidious religious and cultural intolerance and to mitigate inequalities in opportunity and wealth that fuel anger and violence among the dispossessed. A unified and coherent support by global institutions for these global norms can, I believe, make a difference.

Climate change and challenges brought about by environmental disruption and resource constraints across our planet will be a massive global challenge that we should not underestimate. By 2050, an estimated world population of 9.8 billion people—2 billion more than we have today—will be tapping into the earth's already strained water supply and amplifying carbon emissions.[11] Rapid population growth, accompanied by increased industrial output and energy use, are exacerbating environmental degradation.

Extreme weather events that seem to be occurring with greater frequency due to global warming remind us of the need for immediate action to mitigate the effects of climate change. In 18 of the last 20 years, there have been substantial and previously not seen interventions by nature that have disrupted economic development efforts. Hurricanes Katrina, Harvey, and Maria illustrate the ease with which a natural disaster can wipe out billions of dollars of investment. Infrastructure in dense urban areas is particularly vulnerable to the ravages of extreme weather events. Infrastructure investments will be futile without first addressing the issue of sustainability in the face of climate shocks. In fact, thoughtful investment now can have positive spillover effects for the future global economy. UN Secretary-General Guterres recently remarked that investing in climate action could result in global productivity gains of US$26 trillion by 2030.[12] But let us be realistic. The scope of this challenge means that it can be effectively addressed only by a coalition of multilateral institutions, national governments, and the private sector. Twenty years ago, the World Bank focused only on "doing no harm" to the environment, but this pledge is no longer sufficient. Today, the bank has an environmental portfolio of US$16 billion, including climate change and biodiversity programs. It must continue to prioritize resources in these areas, and it must enjoin other institutions, governments, and the private sector to do the same.

A FUTURE OF MULTILATERALISM

How does the world of today respond to the great shifts we are already seeing and the challenges that tomorrow will bring? The challenges are generational, not isolated to any country nor solved by domestic policies alone.

11 UN DESA Population Division, "World Population Prospects."

12 Antonio Guterres, "Secretary-General's Remarks on Climate Change" (Speech, New York, NY, September 10, 2018), https://www.un.org/sg/en/content/sg/statement/2018-09-10/secretary-generals-remarks-climate-change-delivered.

To me, the implications are clear: it's time to rethink our global institutions and our cooperative, open international order to accommodate change in a way that can deliver beneficial outcomes for more, and ideally all, nations and peoples across the globe.

First and foremost, greater inclusivity of rising economic powers within our global governance networks is vital. The growing recognition of the G20 as a premier coordinating mechanism for global agenda setting and prioritization is a noteworthy construct. Within existing institutions, we can formally promote the newer economic powers that are driving today's growth into a bigger global leadership role, empowering them to own the responsibilities that come with that role. Accelerating quota reform within the IMF is one clear example of where this type of shift can occur. We need innovative and bold solutions, coordinated by new global leaders, to address the rising concerns of inequality, education, labor and productivity gaps, climate change, and the like. The Bretton Woods institutions should rejuvenate themselves by becoming the meeting place for emerging economies to join in forging solutions to address the pressing global economic challenges of the next generation.

The world will continue to need multilateral institutions to be guardians of global public goods, addressing issues such as pandemic threats, climate change, and nativist restrictions on international mobility. But as these institutions adapt to meet the changing faces and features of the world economy, they must be careful to avoid mission drift. The World Bank must retain a global competence and a global diagnostic capacity, but this does not mean it should "do everything." It does imply more selectivity and much better partnership and division of labor among all the players: international institutions, the United Nations, bilateral donors, nongovernmental organizations, philanthropists, and the private sector. With a new World Bank president at the helm comes a new opportunity for the Bank to clearly articulate, champion, and coordinate a global development agenda, tackling challenges that are beyond the capability of any individual country or regional forum to address effectively.

To this end, the World Bank and its sister regional development institutions can do more to help countries help themselves. Country programs and development projects need to account for global shifts such as demographic and technology trends, but they must be fully owned by the local stakeholders if they are to succeed. Governments must be empowered to set their own development objectives, leveraging creative financial tool kits placed at their disposal by the wider international finance community, including the private sector. We must accept that projects receiving development financing or other forms of multilateral support are not World Bank, AIIB, or IMF projects—they are Indian projects, Ugandan projects, Nigerian projects.

Multilateral institutions and the leaders steering them will also need to be better partners with other stakeholders. To be a good partner, they must be ready to listen and respond to constructive criticism. I want to see a World Bank that is open to learning from others and that holds itself accountable. When I was at the helm, I listened to the needs of all our constituents, which helped shape my vision for the institution. At that time, our central purpose was to save countries from crisis and help the world's poor forge better lives. In response, we implemented the Heavily Indebted Poor Countries (HIPCs) Initiative, a debt relief program intended to break HIPCs out of the debt trap and free up resources for poverty reduction initiatives.

How can a better partnering approach translate across the broader landscape of multilateral development banks? As it stands, the world's multilateral institutions are still too siloed, resulting in programmatic overlap, duplication, and competition. The AIIB, the New Development Bank established by the BRICS countries (Brazil, Russia, India, China, and South Africa), and the African Development Bank, among others, are poised to help address regional financing gaps. The recent report of the G20 Eminent Persons Group on Global Financial Governance offers very thoughtful proposals and encourages taking a systems approach to multilateralism, which I agree is needed.[13] The question is not necessarily how individual bodies and institutions should be restructured, but how the system can bring its collective firepower, knowledge, and goodwill to the table to solve the world's problems. We must draw upon a growing, but still fragile, asset: an international recognition of global interdependence.

Finally, if we can be bold and forward-looking enough to act now and reimagine ways in which our existing open, rules-based global economic system and institutions can more aptly represent and support our world of tomorrow, we must first embrace how we, as individuals and as a Bretton Woods Committee, can change. Fundamentally, how do we challenge ourselves to see past our own biases? Many of us, myself included, were educated in Western tradition. In school, I learned about British history, not Asian history. I attended the 29th G8 Summit in France in 2003, when Indian and Chinese representatives were invited to attend as guests for the first time. They were not accepted as being a part of the central group, nor were they invited to attend the most consequential meetings.

Now these economies are among the fastest growing in the world, and their continued growth is becoming less reliant on North-South cooperation. The Belt and Road Initiative is creating infrastructure that will greatly increase regional trade and investment flows, and the free trade agreement among the BRICS countries is increasing

13 G20 Eminent Persons Group on Global Financial Governance, *Making the Global Financial System Work for All* (n.p.: G20 EPG, 2018), https://www.globalfinancialgovernance.org/assets/pdf/G20EPG-Full%20Report.pdf.

emerging-market inclusion in the global gains of trade. As the world becomes more multipolar, there is now real risk that unilateral agendas and bilateral or regional preferences will chip away our cooperative international order.

I believe that is where the Bretton Woods Committee can help—if it recasts and retools itself to be fit for purpose in a multipolar world. We will need new leaders—representative of the world of tomorrow—with global clout and sincerity to bridge conversations and perspectives, encourage economic collaboration over confrontation, and champion the committee's mission in emerging centers of power.

The truly global involvement and diversity of perspectives represented across this compendium gives me encouragement that the spirit of Bretton Woods remains strong today. It is how we apply this spirit—within an interconnected, multipolar world—that may ultimately determine whether we can continue to evolve and strengthen our current system and institutions to meet the needs of our global citizenry. Hopefully, enough of us will appreciate that our human interconnectedness outweighs our many differences.

We have come to recognize that the wisest and most effective way to protect our national interests is through international cooperation. This is to say, through united effort for the attainment of common goals. This has been the great lesson of contemporary life, that the peoples of the earth are inseparably linked to one another by a deep, underlying community of purpose.

—**U.S. Treasury Secretary**
Henry Morgenthau Jr.
at the closing session of the 1944
Bretton Woods Conference

U.S. Secretary of the Treasury Henry Morgenthau Jr. speaking at the Bretton Woods Conference.

Source: Bettmann/Getty Images

LEADERSHIP OF THE BRETTON WOODS INSTITUTIONS

THE INNOVATIVE MONETARY FUND

CHRISTINE LAGARDE

Managing Director, International Monetary Fund

The International Monetary Fund (IMF) was born during that remarkable multilateral moment after World War II, when the nations of the world joined together in a cooperative endeavor, determined to avoid the mistakes of the past that had led to devastation and ruin.

Instead of insularity and the supremacy of national interests, they chose collaboration and the global common good, recognizing that if countries worked together in the common interest and helped each other in times of need, then everyone could prosper. This was a simple idea, but an immensely powerful one. It is an idea that has stood the test of time, despite the enormous changes that have taken place in the global economy over the past three-quarters of a century.

The principal architects of Bretton Woods—John Maynard Keynes of the UK Treasury and Harry Dexter White of the US Treasury—were deeply influenced by the events of the interwar period, when multilateralism and the liberal international order had broken down amidst trade protectionism and competitive currency devaluations. Imploding world trade had deepened the reach of the Great Depression, exacting huge economic, financial, and social costs that ultimately gave rise to nationalist and populist movements, culminating in the outbreak of World War II.

Against this backdrop, the founders of Bretton Woods identified three core challenges of the international monetary system: promoting international monetary cooperation, supporting the expansion of trade and economic growth, and discouraging policies that would harm prosperity.

The world of today is very different from that of Bretton Woods—in part because of the shifting economic weight of emerging-market economies and the rise of private capital that now dwarfs official flows. Although the specific challenges—and correspondingly, the Fund's responses—have changed over

time, at their core, the goals of the international monetary system remain much the same.

INNOVATION AND FLEXIBILITY

Over the seven-plus decades of its existence, the IMF has focused on these goals and proven itself to be a highly innovative institution that has responded to emerging global trends and to the challenges confronting its membership. This 75th anniversary of Bretton Woods provides an opportune moment to reflect upon how the institution has evolved in the past—*and must continue to evolve in the future*—to adapt to the changing world order. From a small band of 44 countries huddled in a small New Hampshire town in 1944, the IMF now has a near global membership of 189 countries—a testament to its continued relevance.

From the very beginning, the IMF helped countries address major new challenges through *collaboration*. Complementing the Marshall Plan, we helped Europe rebuild from the rubble of war. Our loans gave countries breathing space to stabilize their economies in difficult times and implement policies to promote growth. As the postwar years progressed, the IMF helped the newly independent countries of Africa and Asia build their institutions and gain a secure foothold in the global economy.

A major test of the IMF's flexible mandate came with the collapse of the original Bretton Woods system of fixed exchange rates in 1973. This system was designed to restore trust, certainty, and order following the interwar chaos of beggar-thy-neighbor policies. In particular, the Fund would provide temporary balance-of-payments support so that deficit countries would devalue their currencies only in cases of "fundamental disequilibrium."

This system served the world well—it laid the foundation for strong and shared growth underpinned by a remarkable run of financial stability. Yet it came increasingly under strain in the late 1960s and broke down irreparably in the early 1970s. The IMF adapted quickly to this new reality, recognizing that its mandate for global financial stability remained as relevant in the new order as in the old. In response to the 1973 oil price shock, the Fund updated its lending instruments to help members adjust to the changed global environment, creating both the Extended Fund Facility (for more protracted balance-of-payments problems than could be handled by its traditional Stand-By Arrangement) and the Oil Facility for countries facing the sticker shock of massively higher energy import bills.

With the onset of the developing-country debt crisis in 1982, the Fund again had to adapt its policies, procedures, and facilities to help members get back on their feet. During this time, the Fund also responded to the specific needs of its low-income members, offering tailored and concessional lending

facilities based on the need to generate growth and reduce poverty.

As the 1980s drew to a close and developing countries finally emerged from the "lost decade" of the debt crisis, the IMF took on the unprecedented challenge of helping the countries in the former Soviet Union and central and eastern Europe transform themselves from centrally planned to market economies. This task required numerous innovations in the policies and practices of the Fund. And even though the scope of reforms was far wider than that of traditional Fund-supported programs, the Fund played a major role in helping countries adjust and achieve macroeconomic stability and external viability.

The Fund continued to respond to a changing global landscape as the 1990s progressed—including by helping countries overcome the Mexican peso crisis and the Asian financial crisis, both of which reflected the growing size and interconnectedness of the global economy. A proactive response required the IMF to develop new facilities and policies to provide the exceptionally large amounts of financing needed, and to introduce new analytical tools and frameworks (such as the balance sheet approach, more rigorous debt sustainability analysis, and stricter safeguards for loans above the Fund's normal credit limits). It also required a fundamental rethinking of program design and an expansion of surveillance to better cover financial-sector issues and vulnerabilities.

The emergence of global imbalances in the middle of the first decade of the 21st century spurred the Fund to sharpen its exchange rate surveillance and to achieve greater symmetry in the burden of adjustment between surplus and deficit countries, and greater evenhandedness in surveillance over fixed and floating exchange-rate countries. The Fund's Integrated Surveillance Decision provided the necessary legal framework for a more encompassing oversight of cross-border spillovers, and for a more multilateral and cooperative approach to addressing imbalances and maladjustments in the international monetary system.

The 2008 global financial crisis and its aftermath once again led to further innovation at the Fund. Both concessional and nonconcessional lending tool kits were revised and expanded, including strengthening the global financial safety net with the creation of "crisis prevention" contingent financing instruments—a reflection once again of the enormous growth in global cross-border financial linkages. In the process, the IMF deployed its firepower and supported its member countries, committing over US$500 billion to help secure the global financial system. Importantly, the IMF introduced zero-interest loans on concessional lending to help support low-income countries in the wake of the global financial crisis. We worked with our membership to craft stronger financial-sector regulations so that, together, we could prevent the next crisis.

Our lending policies were adapted to provide for a graduated recourse to debt restructuring for cases in which adjustment alone is insufficient to ensure debt sustainability.

IMF surveillance was also enhanced with a sharpening of policy advice on macroeconomic and macrofinancial policies, management of cross-border capital flows, and structural reforms. To provide greater scrutiny of external imbalances, a new External Sector Report was introduced, providing a multilaterally consistent assessment of external positions and policies in the major economies. The Fund's members also approved a framework (the "institutional view") to guide policy advice on how best to harness the benefits of capital flows while managing the associated risks. In addition, requisite analytical tools were developed to give the Fund cutting-edge technology to identify vulnerabilities and provide early warning against emerging risks and possible crises.

At the same time, the IMF enhanced its capacity-development efforts and helped governments around the world modernize their economies. Our capacity-building programs now cover a range of areas, from working with central banks to modernize financial systems, to training nearly 30,000 individuals through free online economics courses.

IMF governance has also changed significantly over the decades; for example, the BRIC countries (Brazil, Russia, India, and China) are now all among the 10 largest shareholders of the IMF. In 2016, the Chinese renminbi was added to the Special Drawing Right basket, joining the US dollar, euro, Japanese yen, and British pound. This development marked yet another milestone in ensuring that the fund reflects the current realities of the global economy.

The IMF has also become more open, transparent, and diverse than at any time in its history. Today, IMF staff represents 147 countries, and over 44 percent of our staff is female. This is good progress, but there is certainly more work left to do.

THE NEXT CHAPTER

Some of the current challenges facing the global economy today would have been familiar to our forebears—including external imbalances, rising inequality, a perception that the gains from globalization are not being shared fairly, anxieties about how technology affects job prospects, and frustrations about corruption. Yet other challenges are entirely new—such as the effects on growth and financial stability that come from digitalization and the looming specter of climate change and other environmental hazards. And those at Bretton Woods in 1944 would be astounded at the speed with which developments—economic, financial, or political—ricochet around the world, underscoring the need for agility and cooperation.

The flexible mandate of the Fund allows us to adapt continually to changing circumstances. In fact, in addition to offering top-notch advice on fiscal, monetary, exchange rate, and financial policies, the IMF of today is able to help countries tackle issues such as inequality, gender equity, corruption, and climate change. We can see that these issues have implications for macroeconomic stability and growth, even if those implications tend to play out over a longer horizon. We are also elevating the importance of social spending in the IMF's work—because such spending matters for promoting stable and inclusive growth.

So as we celebrate the 75th anniversary of the Bretton Woods Conference, it is timely to recognize that its genius lay in creating an international cooperative institution that could, and would, constantly innovate to meet the evolving needs of its membership. I am confident that as we look back again in another 25 years, at the IMF's 100th anniversary, we will have identified a new set of issues that are barely even on the radar today. I am equally confident that the IMF will once again be able to meet these new challenges, just as it always has.

COMMON PURPOSE ADVANCING DEVELOPMENT

75 Years of Innovation for Progress and Shared Prosperity

DAVID MALPASS
President, World Bank Group

The end of the 20th century and the beginning of the 21st will go down in history as a consequential era of poverty reduction. In 1990, the World Bank published the *World Development Report* focused on poverty. Since that year, broad-based economic growth and inclusive approaches to development reduced the number of people living in extreme poverty by more than 1.1 billion. The poverty rate in 2018 was estimated at 8.6 percent—the lowest level in history.

Despite this progress, the challenges we face remain urgent. More than 700 million people still live in extreme poverty—that is one in 12 humans alive. In sub-Saharan Africa, the number of people living in extreme poverty is on the rise, and 15 million new jobs are needed every year to keep up with population growth. Current income growth rates will not be sufficient to achieve shared prosperity and enable people to reach their full potential. Too many people are not seeing an advance in their living standards, their skills, or their ability to face natural disasters.

The World Bank Group is working to address these challenges. Over the last 75 years, the institution has grown, evolved, and supported innovation. The World Bank Group of 2019 has vastly more tools and approaches than ever before, and the focus of our work is strong country programs to drive growth, raise median incomes, and create breakthroughs that improve the lives of the poorest and most vulnerable.

These efforts are built on a foundation of the ideas and ideals that were debated, shaped, and agreed upon at an unprecedented gathering in a small town below the mountains of New Hampshire three-quarters of a century ago.

FOUNDATION OF OPPORTUNITY

On the evening of July 1, 1944, US Treasury Secretary Henry Morgenthau stood before delegates from 44 countries at the Mount Washington Hotel. Across the Atlantic Ocean, Allied armies were pushing through Normandy, battles raged in both Europe and the Pacific, and it was still uncertain who would prevail in the largest and deadliest war in history.

Long before the war's outcome was clear, the Allied nations began looking ahead to the world beyond the war. US President Franklin Roosevelt knew that it would not be enough to shape the postwar order; he envisioned an effort to build an entirely new system that would not just prevent another world war but ensure lasting peace.

Roosevelt had learned important lessons from the aftermath of World War I, when another American president, Woodrow Wilson, argued that peace must be based on "the principle of justice to all peoples and nationalities, and their right to live on equal terms of liberty and safety with one another—whether they be strong or weak."[1]

The 1919 Treaty of Versailles had failed, in part because economic crises helped Nazi ideology to take hold and push the world back into war. By 1944, it was clear that peace must be based not just on liberty and safety, but on opportunity and prosperity as well.

That was how the delegates found themselves in a grand but aging hotel at the foot of Mount Washington in the village of Bretton Woods, New Hampshire. The purpose of the United Nations Monetary and Financial Conference was to build an entirely new global financial system that would stabilize exchange rates, bridge imbalances of payments, rebuild countries scarred by war, and promote development in poorer parts of the world. In his opening speech, Morgenthau, the chair of the conference, said the goal was to create "a dynamic world economy, in which the people of every nation will be able to realize their potentialities in peace . . . to raise their own standards of living and enjoy, increasingly, the fruits of material progress."[2]

Over the next three weeks, the delegates huddled around conference tables and bars; they argued over meals and during late-night technical sessions. Before the month was over, they created a new global financial system and two new institutions: the International Monetary Fund and the

1 Woodrow Wilson, "Fourteen Points" (Speech to joint session of US Congress, Washington, DC, January 8, 1918).

2 Henry Morgenthau, "Opening Address to the Conference" (Speech given at United Nations Monetary and Financial Conference, Bretton Woods, NH, July 1944).

International Bank for Reconstruction and Development—later known as the World Bank.

The new financial system incorporated key ideas that the delegates discussed on the opening night. The conference itself was based on the conviction that there are no fixed limits to prosperity—that all nations could benefit from growth and development. The system that emerged from that conference was designed to address challenges that individual countries could not tackle on their own. And finally, underpinning the entire effort was the idea that all people deserve opportunity. "Freedom of opportunity," Morgenthau said, "is the foundation for all other freedoms."[3]

Over the last 75 years, the World Bank Group's mission has expanded and evolved, from rebuilding after conflict to alleviating poverty. But above all, the Bank has worked to harness the power of markets, inclusive economic growth, and knowledge sharing to improve the lives of the poorest and most vulnerable, a mission that is more urgent today than ever before.

CHARTING A COURSE THROUGH THE RUINS

The year 1947 was a consequential one for the nascent Bretton Woods system. As the World Bank started up operations and collected capital subscriptions from shareholder countries, an outline began to emerge for its role, not only in reconstruction and development, but in shaping the new financial system.

It was a slow start. The Bank's first president resigned abruptly after only six months on the job. Less than two months later, the vice president suddenly died. The future of the institution was uncertain, and the Bank had yet to make its first loan.

But slowly, the Bank began to define its policies and in early 1947 signed its first loan—US$250 million for reconstruction in France. In real terms, it is still one of the largest loans in the Bank's history—US$2.85 billion when adjusted for inflation.

Looking back, the Bank's initial operations seem remarkably straightforward. The French loan application was a simple letter that was part of the government's outline for its reconstruction program, asking for US$106 million for equipment, US$180 million for coal and petroleum products, and US$214 million for raw materials. Staff at the time describe learning on the job what kind of investigations to undertake and what questions to ask. "Nobody knew where to begin. We were inexperienced," Richard Demuth, who served as assistant to the vice president, later remembered. "Just like any other new institution in a new field, at that time we were ... finding our way."[4]

3 Morgenthau, "Opening Address."

4 Quoted in "May 9th, 1947—The World Bank's First Loan," World Bank Group Archives, accessed May 2019, http://www.worldbank.org/en/about/archives/history/exhibits/the-world-banks-first-loan.

Even as it was finding its way, the World Bank began to redefine development finance by pioneering the way in which development is connected to the capital markets. In July 1947, the bank issued its first bond, raising US$250 million to fund reconstruction and development projects. It lent nearly US$500 million for postwar reconstruction in the Netherlands, Denmark, and Luxembourg later that summer.

Through the lens of today's development mission, loans to European countries may seem out of place. But when the bank's staff examined the economies of Western Europe, they found enormous need of food, fuel, raw materials, and capital. In 1947, huge parts of the continent lay in ruins. Millions had been killed in six years of fighting, infrastructure was demolished, and many of those who survived were refugees.

In the winter of 1947, as the Bank began to supply some of that much-needed support, economic prospects were bleak. An oral history observed, "It took a bit of stretching for the management to conclude that repayment prospects were reasonable; the economic report on France, for example, laid its stress, not on financial resources or specific export prospects, but on the French 'collective will to recover.'"[5] Through its earliest loans, the World Bank invested in equipment and raw materials, but more importantly, it invested in the collective will of war-scarred people to rebuild their lives.

ADVANCING DEVELOPMENT

Much of the conventional wisdom about the World Bank's early years holds that the Bank focused squarely on reconstruction, and turned to development only after the beginning of the Marshall Plan. If the Marshall Plan pushed the Bank away from the center of rebuilding Western Europe's postwar economy, development was embedded in the Bank's DNA from the very beginning.

The first paragraph of its Articles of Agreement states that one of the purposes of the International Bank for Reconstruction and Development is "the encouragement of the development of productive facilities and resources in less-developed countries."[6] Recent scholarship also argues that development was a larger part of the deliberations at the Bretton Woods Conference than has previously been appreciated. Eric Helleiner, a professor of international political economy at the University of Waterloo, has argued that the development aspirations of emerging powers played a large role in the Bretton Woods discussions. "Far from neglecting international development goals," Helleiner

5 Quoted in "May 9th, 1947."

6 International Bank for Reconstruction and Development, "Articles of Agreement" (as amended, effective June 27, 2012), http://pubdocs.worldbank.org/en/722361541184234501/IBRDArticlesOfAgreement-English.pdf.

wrote, "the Bretton Woods negotiations should be recognized for their pioneering role in incorporating these goals into a liberal multilateral financial architecture for the first time."[7]

That incorporation began in 1948, when the Bank approved two sovereign loans to Chile: a US$13.5 million loan to a government development corporation for power plant equipment and a US$2.5 million loan to import agricultural machinery.

The Bank's third annual report defined its approach to development as "one of willingness to help its members to analyze their development problems, to work with them in mapping out the broad lines along which their development may be advanced most soundly and rapidly, and whenever possible to select for initial financing those projects which seem most likely to contribute to such advance."[8] Using that approach, the Bank made 68 loans over the next five years; 64 loans—averaging about US$14 million each—went to projects that would advance "most soundly and rapidly" the priorities of developing countries. In just half a decade, from 1947 to 1952, the Bank's focus shifted from rebuilding Europe to advancing opportunities for people in the developing world.

INNOVATION FOR OPPORTUNITY

Over the next few decades, as the needs of developing countries grew larger and more complex, the World Bank developed new ways to use capital and expertise to address them. And when there was no tool to address a particular challenge, the World Bank created one—including changing its organizational structure to what became the modern World Bank Group.

International Finance Corporation

As early as the late 1940s, it became clear that private enterprises in developing countries were hungry for more investment than the market could provide. When the International Finance Corporation (IFC) opened its doors in 1956, it was given a difficult mission: to invest in private projects only "in cases where sufficient private capital is not available on reasonable terms." In other words, IFC had to find and invest in projects that weren't attractive enough for private investors but had the prospect of advancing a country's development priorities.

IFC found many investments that qualified. Over the last six decades, it has helped deliver more than US$250 billion to finance businesses in developing

7 Eric Helleiner, *Forgotten Foundations of Bretton Woods* (Ithaca, NY: Cornell University Press, 2014), 2.

8 World Bank Group, "World Bank's First Development Loans to Chile, 1948" (World Bank Group Archives No. 057, Washington, DC, World Bank, January 2016), http://documents.worldbank.org/curated/en/308691468185347709/text/104690-WP-PUBLIC-2007-01-World-Banks-First-Development-Loans-to-Chile.txt.

countries, and today it creates markets in some of the most challenging areas in the world.

International Development Association

During the Bank's early years, the world's poorest countries desperately needed capital but could not afford to borrow at the same rates as middle-income countries. So in 1960, the Bank's shareholders created the International Development Association (IDA), a fund for the poorest countries, which offers grants and concessional—close to zero-interest—loans. Since 1960, IDA, which is replenished every three years, has provided more than US$360 billion for investments in 113 countries.

In 2018 alone, IDA disbursed US$24 billion in grants and concessional loans to projects that create jobs and spur economic growth; help women participate fully in the economy; build climate resilience; and address fragility, conflict, and violence. Also in 2018, IDA issued a US$1.5 billion inaugural bond that will boost the fund's resources without additional money from donors.

International Centre for Settlement of Investment Disputes

The idea for a body of technical experts to settle disputes emerged almost as soon as the World Bank began lending. In its early years, the Bank received so many requests for the institution or its president to mediate disputes between investors and governments that the shareholders decided to create a systemic way to cover mediation. In 1966, the International Centre for Settlement of Investment Disputes (ICSID) opened its doors to facilitate arbitration between investors and states. In subsequent decades, ICSID has helped settle many disputes around the world, including several related to the North American Free Trade Agreement (NAFTA).

Multilateral Investment Guarantee Agency

The idea for a form of political risk insurance emerged shortly after the Bank began lending. It did not become a reality until four decades later, when an international convention established the Multilateral Investment Guarantee Agency (MIGA) as the newest member of the World Bank Group. Today, MIGA enables projects, sectors, and countries to promote development by providing political risk insurance and credit enhancement.

In its first three decades, MIGA issued US$45 billion in guarantees to support more than 800 projects in 111 countries. Last year, MIGA provided US$5.3 billion in political risk insurance and credit enhancement, helping finance nearly US$18 billion worth of projects in developing countries. Without lending money directly, MIGA has become the third-largest institution among the multilateral development banks in terms of mobilizing direct private capital to low- and middle-income countries.

As the mission of the Bank Group grew in size and complexity, the institution became more decentralized. Today, the World Bank Group has 141 field offices, and staff routinely operate in difficult conditions, working in areas suffering from fragility, conflict, and violence.

The World Bank Group's innovation has reached deep into the finance sector. In 1981, the Bank pioneered the currency swap, swapping US dollars for Swiss francs and Deutsche marks with technology company IBM. Today, the market for currency swaps has a notional value of more than US$25 trillion.

In 1989, the World Bank issued the first globally traded and settled bond that eliminated pricing disparities between the United States and Europe, and it convinced a group of 14 banks to reduce their fees. Together, the improvements enabled the World Bank to reduce its US dollar borrowing costs.

The World Bank created its first electronic bond in 2000. It was the first bond offered globally on Internet platforms, allowing retail investors to invest in the Bank's development activities for the first time. Eight years later, the Bank issued the world's first Green Bond, and for the first time, investors could directly support climate projects without incurring the project risk. The Green Bond helped change the way investors decide how to allocate their investments for a balance of risk, reward, and impact.

The Bank's financial innovation continues to harness the latest technology on behalf of the poorest and most vulnerable. In the summer of 2018, the Bank launched the world's first legally binding bond operated on a global blockchain platform, called Bond-i. Issuing bonds on blockchain and other distributed ledger technologies is simpler and faster, increases productivity, and reduces cost and risk.

But the World Bank Group's innovation has not been limited to finance. For decades, the Bank has expanded the collection, analysis, and presentation of development information. One example is its annual *Doing Business* report, which ranks countries on their business environment—including taxation, contract law, and start-up regulations. In 15 years, *Doing Business* has inspired more than 3,180 reforms. Another example is the annual *World Development Report,* which, since 1978, has shown how economic growth; investments in health; and responding to climate change, gender inequality, learning shortfalls, and the changing nature of work are critical to alleviating poverty around the world.

Another example is the Bank's *Women, Business, and the Law* report, a comprehensive global analysis of laws and regulations that affect women's ability to fully participate in the economy. *Women, Business, and the Law 2019* includes a new index to provide insight on the obstacles facing women's employment, entrepreneurship, and full incorporation in the economy, and how such obstacles impact economic outcomes.

With *Doing Business*, the Bank found that country rankings put data and evidence in front of leaders and invited their attention. We are now also using the Human Capital Index, which we launched last year, to objectively measure the human capital in each country and show how much more productive workers could be with full health, successful learning, and the skills to compete in profitable activities.

Human capital improvements are critical to alleviating poverty and advancing shared prosperity. The Bank has tracked the wealth of 141 countries over two decades by aggregating natural capital (things like minerals and forests), produced capital (things like infrastructure and buildings), and net foreign assets. Last year, for the first time, we included human capital in those calculations and estimated that more than two-thirds of the wealth of all nations is in human capital.

Recognizing the complexity of development, the World Bank Group also expanded its internal expertise far beyond the early focus on finance and infrastructure. In 1970, the Bank hired James Lee, its first Environmental Advisor, and over the course of the next decade brought on Michael Cernea, its first sociologist; Gloria Scott, the first Advisor on Women in Development; and Gloria Davis, the Bank's first anthropologist. The World Bank's interdisciplinary approach to development would become essential as the institution focused on a new mission, one that continues with the same urgency to this day.

FIGHTING POVERTY, LIFTING THE POOR

In the fall of 1973, the World Bank's fifth president, Robert McNamara, thrust into the international consciousness a word that does not appear in the Bank's articles of agreement: *poverty*. In his speech to shareholders at the Bank's Annual Meetings in Nairobi, Kenya, McNamara argued that the Bank's mission should be to alleviate "absolute poverty," which he described as "a condition of life so degrading as to insult human dignity—and yet, a condition of life so common as to be the lot of some 40 percent of the peoples in developing countries."[9]

He asked the shareholders, "Are not we who tolerate such poverty, when it is within our power to reduce the number afflicted by it, failing to fulfill the fundamental obligations accepted by civilized men since the beginning of time?"[10]

Partnering with Treasurer Eugene Rotberg, McNamara guided a dramatic expansion in the World Bank's lending,

9 Robert S. McNamara, "To the Board of Governors" (Address at World Bank Annual Meetings, Nairobi, Kenya, September 1973), http://documents.worldbank.org/curated/en/930801468315304694/text/420310WP0Box0321445B01PUBLIC1.txt.

10 McNamara, "To the Board of Governors."

financed by borrowing from new capital markets throughout the world and innovative financial techniques. Rotberg's expertise in the bond market helped double the overall lending program of the Bank in just five years, from 1968 to 1973.

McNamara made the case that more of that capital should go to help the poorest and most vulnerable by focusing on rural development, increasing access to public services, and reorienting development policies to fight inequality. "In a way that was never true in the past, we now have the power to create a decent life for all men and women," he told the shareholders in Nairobi. "The extremes of privilege and deprivation are simply no longer acceptable. It is development's task to deal with them."[11]

When McNamara retired from the World Bank Group in 1981, the global poverty rate was 42 percent. His challenge, and the Bank Group's new mission, would endure for decades.

During two terms as president of the World Bank Group, from 1995 to 2005, Jim Wolfensohn emphasized the urgency of the task. "If we want stability on our planet, we must fight to end poverty," he said in 2004.[12] It is still the challenge of our time.

But Wolfensohn knew that the fight to end poverty was impossible without tackling what he called "the cancer of corruption." He argued that the poor suffer the most from corruption—in funds diverted from life-saving medicine, safe roads, and education that gives people a chance for a brighter future. He also pointed to the reality that a corrupt environment is much less likely to attract development investments, leaving the poor to suffer twice over.

Those fights continue to this day. Emerging from a period of strong poverty alleviation but facing urgent global challenges, the World Bank Group is strong financially and well positioned with the right tools and resources, and a talented and professional staff. The World Bank Group today draws a more diverse pool of talent than ever before. For example, only 2 of the more than 700 delegates at Bretton Woods were women. Today, women make up nearly 53 percent of World Bank Group staff, 42 percent of its managers, and nearly 49 percent of the senior management team.

In the years to come, we will continue to focus on achieving breakthroughs in developing countries that will raise median incomes; create jobs; fully incorporate women and young people into economies; and support a stronger, more stable economy for everyone. Those goals—and the necessary cooperation to achieve them—are what the Bretton Woods delegates had in mind from the very beginning. They created strong institutions in which the nations of the world could work

11 McNamara, "To the Board of Governors."

12 James D. Wolfensohn, "Opening Address by the President of the World Bank Group," in *Summary Proceedings of the Fifty-Eighth Annual Meeting of the Board of Governors* (Washington, DC: IMF, 2004), 16.

together to address the most urgent challenges and improve the lives of people all over the world.

On July 22, 1944, when negotiations were complete, Secretary Morgenthau closed the Bretton Woods Conference. "The Conference at Bretton Woods has erected a signpost pointing down a highway, broad enough for all men to walk in step and side-by-side," he told the delegates. "If they will set out together, there is nothing on earth that need stop them."[13]

Today, the pace of innovation is accelerating, and millions continue to escape poverty. But the world is also more fragile than in recent decades, as more of the world's poor live in areas suffering from conflict, violence, and the effects of climate change. Leaders need to focus on liberty and safety, as well as on opportunity and prosperity.

Creating equality of opportunity is the key challenge of our time, and that mission is more urgent than ever. If we set out together, men and women, and use our powerful tools for the poorest and most vulnerable, we can end extreme poverty and advance development and shared prosperity around the world. Walking with a common purpose, in step and side-by-side, nothing can stop us.

13 Henry Morgenthau, "Closing Address to the Conference" (Speech given at United Nations Monetary and Financial Conference, Bretton Woods, NH, July 1944).

STRENGTHENING THE WTO FOR THE FUTURE

ROBERTO AZEVÊDO

Director-General, World Trade Organization

International cooperation has proven to be an essential ingredient for growth, development, job creation, and ultimately, peace. The 75th anniversary of the Bretton Woods Conference is a timely moment to remind ourselves of the importance of international cooperation, and to strengthen our efforts to that end.

The World Trade Organization (WTO) is a clear example of international cooperation in action. The WTO is ultimately the result of governments around the world being willing to cooperate on trade. Its creation and subsequent success reflects the growing realization among more and more countries that opening trade can lead to growth and development; that agreed-upon rules can strengthen, not weaken, sovereignty; and that advancing national interests increasingly depends on advancing our collective interests.

THE WHERE AND WHY OF THE WTO

To appreciate how far the WTO has advanced, it is important to remember where—and why—it began. At its root, today's system was a response to the economic chaos of the 1930s. Escalating protectionism, rival trade blocs, and competitive currency devaluations fueled the economic insecurity and international tensions that led to the Second World War. In the aftermath of that devastating conflict, the initial plan was to create an International Trade Organization—alongside the then recently established International Monetary Fund (IMF) and World Bank. The goal was to rebuild an open and prosperous global economy as an essential foundation for world peace. As President Truman said in 1947, "peace, freedom, and world trade . . .

are inseparable. The grave lessons of the past have proved it."[1]

In fact, the creation of the International Trade Organization proved too ambitious, and the more limited General Agreement on Tariffs and Trade (GATT) was established. GATT grew over subsequent decades until, in 1995, the WTO was created, with 128 members. This body was the realization, in an updated form, of the original Bretton Woods vision to create a global trade body. The new WTO was given the same legal and organizational standing as other international organizations, including the IMF and the World Bank. It thereby signaled the biggest reform and expansion of the international trading system in history.

The WTO ushered in a more open and integrated global economy. The Uruguay Round of negotiations, which established the organization, had resulted in global tariff reductions of 40 percent and led to the liberalization of new sectors, such as agriculture, textiles, and services. The WTO also assumed new responsibilities. Besides administering the existing agreements on trade in goods, the WTO oversaw new agreements on services and intellectual property, the trade policy review process, and notably, the dispute settlement body. These new functions marked a significant evolution. For most of the GATT period, and before that, trade was understood to be exclusively about the movement of goods across borders, dealing mainly with tariffs, quotas, and other border measures. By creating the WTO, trade negotiators took on a much wider array of issues, looking at the cross-border movement of not only goods but also of services, capital, ideas, and people.

This system also reflected a more multipolar and globalized world. Consider the system's widening membership. Whereas GATT started with just 23 members in 1947, the WTO now has 164—a fifth of whom have joined since its creation in 1995. With the accession of China in 2001, Saudi Arabia in 2005, and Russia in 2012, all of the world's major economies are now part of a single economic system—covering around 98 percent of global commerce. The WTO is the custodian of a truly global trade system. It provides the only forum where all countries, including the most powerful, can cooperate on a growing number of global trade issues that demand global solutions. The system has provided stability and predictability in global trade—holding firm even during the financial crisis. Everybody stands to benefit from WTO work. More members have access to information, not just about national trade policies, but about international trade relations as well, through the WTO's transparency and surveillance mechanisms. In addition, more members are using WTO councils, committees, and

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1 Harry S. Truman, "Address on Foreign Economic Policy, Delivered at Baylor University, March 6, 1947," in *Public Papers of the Presidents of the Unites States: Harry S. Truman, 1947,* vol. 3 (Washington, DC: US Government Printing Office, 1963), 167.

working groups to coordinate policies and head off disputes.

THE WORK OF THE WTO

When solutions cannot be found, members can call on the WTO's dispute settlement system, helping to ensure that trade disputes do not spiral into larger conflicts. This system is one of the fundamental pillars of global economic governance—and it is highly effective. Many disputes are resolved before they reach the litigation stage, but when they do proceed to that stage, compliance with rulings is very high, at around 90 percent. However, at the time of writing (October 2018), some members have been raising concerns about the way the dispute settlement system works. We are striving to deal with these issues and advance a dialogue that will improve this essential system.

Another important feature of the WTO's work is our role in negotiating and updating our rules. Although for a long period little progress was made, in recent years we have delivered a number of important trade agreements, with significant economic benefits. In 2013, at our Ministerial Conference in Bali, WTO members agreed to the first multilateral deal of the organization: the WTO Trade Facilitation Agreement. This deal came into force in 2017 and aims to streamline, simplify, and standardize customs procedures. By doing so, it will help to cut trade costs around the world. Estimates show that full implementation of the agreement could reduce trade costs globally by an average of 14.3 percent. By 2030, it could add 2.7 percentage points per year to world trade growth and more than half a percentage point per year to world GDP growth.

WTO members have struck deals in a number of other areas as well. In 2015, at our Ministerial Conference in Nairobi, they abolished export subsidies for agricultural goods. This was the biggest reform in agriculture trade in 20 years, and it delivered a key element of UN Sustainable Development Goal 2, zero hunger. At the same time, a group of WTO members struck a deal to eliminate tariffs on a range of new-generation information technology products. Trade in these products is worth around US$1.3 trillion each year. That is bigger than global automotive trade. In addition, members have made decisions to help least developed countries better integrate into the trading system; taken steps to improve food security; and brought into force the amendment to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), which helps developing countries access generic medicines at more affordable prices. Together, these deals represent the biggest trade reforms in a generation.

The latest step in this journey was our Ministerial Conference in Buenos Aires in 2017. Although no final agreements were reached this time, important progress was made. On fisheries subsidies, for example, members committed to securing a deal to limit harmful subsidies by

the end of 2019. Success here would deliver on Sustainable Development Goal 14.6, sustainable fisheries—and it would be a major achievement for the WTO membership.

THE FUTURE OF THE WTO

All of these steps are very positive. But they are not enough. Progress in many key areas has been stalled for some years, so we need to keep working. Therefore, in Buenos Aires, groups of WTO members announced new initiatives to discuss issues of emerging economic importance, including electronic commerce, investment facilitation, trade participation of smaller businesses, and women's economic empowerment. This work is not supported by all members, but there is momentum behind it and only time will tell exactly how it will develop.

Making sure that the multilateral trading system is relevant and works for all also involves other aspects that may be less visible but are nonetheless essential. Capacity-building assistance falls squarely into that category. This work is vital to ensure that developing countries receive the necessary practical support to build the necessary capacity and skills to participate fully in the trading system and leverage the opportunities that trade can provide. The WTO runs a range of training programs, tailored to the needs of developing-country officials. The WTO is also host to the Standards and Trade Development Facility, the Enhanced Integrated Framework for Trade-Related Assistance for the Least Developed Countries, and the Trade Facilitation Agreement Facility. These are partnerships that provide vital help to poorer countries, enabling them to better take advantage of trade opportunities. And of course, we have the Aid for Trade initiative to ensure that developing countries receive targeted assistance to improve their trading infrastructure. This work does not occur in isolation. We cooperate very closely with the IMF and the World Bank in a number of these areas.

The extent to which the WTO is successful and effective comes down to its members. A clear sign of progress is the expansion of world trade. Trade volumes have increased by two and a half times since the WTO's launch—and a staggering 37-fold since GATT's creation—easily outstripping growth in world output. Trade growth has helped to fuel growth and prosperity in developed economies, but it has also benefited developing countries significantly. Since 1995, developing countries' share of global trade has jumped from 28 to 46 percent, supported by the framework that the WTO offers. Whether the future of the WTO is as successful as the past depends on members' willingness to continue cooperating. Cooperation is essential to ensure that the WTO can adjust and adapt to challenges of the present and the future.

At the time of writing, tensions have been escalating rapidly between major trading partners, which we are working night and day to help resolve. At the root

of these tensions is the argument that the trading system is allowing distortive trade practices to go unchecked. Therefore, the argument goes, the system needs to change to be more responsive to such measures. The current crisis is political. It requires a political solution. This is why a high-level conversation about "WTO reform" or "modernization" is beginning to emerge. Reform is seen as a way to deal with some of the big trade problems that some members have identified. A wide range of important priorities and perspectives have been advanced by WTO members in this area. Which issues are taken forward is for members to determine. But clearly this reform debate is gathering momentum. Many leaders have committed to working together on this reform agenda.

Whatever the precise answers may be, there's no doubt that we need to redouble our efforts to ensure that the global trading system is properly responsive both to members' needs and to the challenges of a changing global economy. The world needs this organization more than ever. It represents the best efforts of governments around the world, working together for 70 years, to find ways to cooperate on trade issues. Without it, we would face a future of uncertainty, trade war, lower growth, lower salaries, higher prices, and diminished job opportunities everywhere—in developing and developed countries alike. So we have to work to safeguard the system and to improve it.

We need trade and the trading system to continue playing their positive role in the global economy, preserving stability and fueling growth—just as they have done so effectively for decades. Working together across the international community, including the Bretton Woods institutions, we can ensure that the WTO continues to serve our economies and communities for generations to come, supporting a more prosperous future for all.

Conference delegates register at the Mt. Washington Hotel on July 2, 1944.

Source: Bettman/Getty Images

MULTILATERAL COOPERATION AND SYSTEMS CHANGE

BUILDING THE NEW COOPERATIVE INTERNATIONAL ORDER

THARMAN SHANMUGARATNAM
Senior Minister, Republic of Singapore[1]

We are at a critical stage in global history. Our central ambition must be to build a new, cooperative international order for a world that has changed irreversibly.

We otherwise face a real risk of drifting into a fragmented world, with rising economic nationalism and growing rifts in trade, investment, and technology between major powers and blocs. No one will be the better for it. It will only weaken our capacity to tackle the challenges ahead, which are larger, more urgent, and more complex than we have seen in decades.

At stake is the future of the open and competitive world order that has brought a large part of humanity out of poverty, raised average living standards across nations, and provided the foundation for relative peace over three-quarters of a century. That open order remains critical to every nation's future. But the system of global economic and financial governance that originated in Bretton Woods, despite having evolved over the last 75 years, struggles with the realities of a new era.

Nevertheless, the spirit of Bretton Woods is as relevant as ever. A new, rules-based international order must, at its core, be aimed at achieving mutual prosperity in a multipolar world, with each nation having a vested interest in an open order and in the global good.

1 Tharman Shanmugaratnam chaired the G20 Eminent Persons Group on Global Financial Governance, which put forward its proposals in October 2018 for reform to the system of international financial institutions.

RECOGNIZING THE BASIC CONUNDRUMS OF GLOBALIZATION

The pushbacks against an open and integrated world order have roots much deeper than the actions of current governments. They go back several decades. Further, they have not emerged by accident and, in the main, have not been the result of globalization's having gone too far. It is, fundamentally, the success of the open global order that has spawned the tensions and contests it now faces. They reflect globalization's two basic conundrums.

First, growth through global integration is leading to a world that is more multipolar and more decentralized in decision making, but also one that is vastly more interconnected than just three decades ago—in trade of goods and services, and in flows of finance, technology, and data. The plurality in global official development finance is striking. Bilateral lending by national development finance institutions (DFIs) is now much larger than that of the multilateral development banks (MDBs) put together. Similarly, bilateral swap lines and regional safety nets, while uncoordinated, are now two-thirds of the world's financial safety net—or twice as large as the resources of the International Monetary Fund (IMF), which constitute the only global layer of the world's financial safety net.[2]

Growth has predictably also accentuated the erosion of the global commons. The successful entry of huge numbers into the global middle class, with consumption patterns expectedly similar to those of populations that arrived earlier, has accelerated global warming. As with all such externalities, the costs of adjustment cannot rest on any one group of countries.

Global governance can and must accommodate this greater plurality, without becoming paralyzed by competing national interests or being reduced to an agglomeration of national projects with different shapes and objectives. It should develop joint capacity for tackling risks to collective stability and the global commons. It should also seek convergence around agreed-upon international standards.

The second conundrum stems from the fact that reduced inequality between nations has been accompanied by increased inequality within nations. To be sure, the decline in real wages of less educated workers and the widening of inequality within the advanced nations began well before the ascent of China and the emerging world in global markets. Studies locate their primary causes in technological change, the decline in workers' bargaining power, and slower growth since the 1970s. Still, the wider divides in the workforce, and between thriving cities and the rest, have been left to fester for too long in

2 In 2006, the IMF constituted 90 percent of the safety net.

too many places, becoming difficult to dissociate from the subsequent impact of globalization. It is therefore not surprising, and not only a matter of political expedience, when foreign competition is identified as a cause of domestic losses.

Economic nationalism is gaining momentum. The prevailing social consensus in favor of open markets cannot be taken for granted.

BUILDING THE NEW MULTILATERALISM

We must build a credible system of global economic and financial governance to meet the challenges of this new era. The present system lacks the coherence, joint capacity, and effective interplay with national strategies that are needed to support its most fundamental goals: broad-based and inclusive growth, financial stability, and a sustainable global future.

There is no going back to the old multilateralism. There is no single conductor. There are already several orchestras in play. The world needs a new harmony, but that can come about only if everyone plays from the same score.

The new multilateralism must rest on networked leadership, shared responsibilities, and common standards in a more multipolar, yet deeply interconnected, world. It does not require new multilateral or supranational bodies. Nor will marginal fixes within today's institutions do. We must instead take bold and defined steps to ensure that today's institutions—global, regional, and bilateral—work together as a system, and to ensure that the system is more resilient and much stronger than the sum of its parts. The new multilateralism requires mechanisms to ensure transparency and complementarity among these different institutions, and to leverage their combined strengths. Doing so will enable the system to deliver greater and more lasting development impact, reduce the frequency and damage of financial crises, and enhance our ability to tackle the pressing challenges to the global commons.

Whether we achieve this shift to a new, cooperative international order also depends critically on how China's relationship with the United States and other global economic leaders evolves. China's transformation, rise, and integration with the rest of the world is by far the most important global economic development of the last three decades. China already takes a fifth of the exports of US technology companies, contributing significantly to their growth. It is the second-largest market for German exports, and the fastest growing. It is the largest trading partner for virtually every Asia-Pacific nation and a growing source of investments. And China's own prowess in global manufacturing has depended crucially on foreign companies in China.

Even so, China's journey of convergence with the advanced world, and its role as a major contributor to global growth, are far from over. China's average productivity level remains less than

one-third that of the United States, and there is still substantial potential for internal leveling up among its various provinces.

Global governance, at the World Trade Organization (WTO) and in multilateral finance, must seek to preserve economic interdependence with China—not just for the sake of sustaining multilateralism, but for the stability and growth all around that this interdependence brings. It must involve updated rules to reflect China's growing weight and ensure a level playing field in trade and investments. But it must also involve a sharing of power in global economic and financial governance, with China taking greater responsibility for maintaining an open order.

A MORE EFFECTIVE INTERPLAY OF NATIONAL AND INTERNATIONAL GOVERNANCE

We have to get national policies right to achieve inclusive societies as well as mutual prosperity globally. Most fundamentally, as the Fourth Industrial Revolution gathers pace, the core tasks of national governments must include supporting ecosystems of innovation and skills that create future jobs, devising strategies with their social partners to actively help those displaced get back into employment, and redressing social inequities.

However, inclusive and sustainable growth also requires an active interplay of national policies and international governance. It must involve several core roles for international economic and financial governance:

- ***To promote mutually reinforcing policies between countries and minimize negative spillovers.*** Policies aimed at growth and domestic financial stability are most effective nationally when they are undertaken widely or coordinated internationally. Equally, international commitments remain necessary to avoid "beggar-thy-neighbor" policies, such as through exchange rate depreciation for competitive gain, which benefit one country at the expense of another without adding to global growth. However, it is also in the nature of today's highly interconnected markets that even policies aimed at achieving domestic objectives in major economies may have international spillovers that constrain the policy options of other countries. An international framework, coordinated by the IMF, is needed to mitigate such spillovers and their effects as much as possible.
- ***To provide credible WTO rules, accompanied by a robust system of enforcement, to enable free and fair trade between nations.*** The WTO's dispute resolution mechanism has been a successful example of rules-based multilateralism, and puts economies small and large on par. But its speed

and effectiveness must be enhanced. The WTO's rule book must also be updated to deal with cross-border data flows and e-commerce, which are rapidly transforming global trade.[3]

- ***To derive full benefit from the unique roles of the international financial institutions (IFIs)[4] as multipliers of development.*** There is a need to refocus, especially on helping countries build their governance capacity, including strengthening tax collection and reducing leakages through corruption and waste, and to develop the full potential of human capital regardless of gender, ethnicity, and social status. The IFIs, together with national development finance institutions, must also shift gears more decisively toward catalyzing private capital by mitigating investment risks.
- ***To coordinate actions to avoid global financial crises.*** Financial regulation has been strengthened since the global financial crisis. However, we do not know where the next crisis will come from. Hence, we also need stronger collective capacity to detect risks early so that we can contain them before they escalate.
- ***To build joint capacity and ensure urgent collective action to tackle climate change and other challenges to the global commons.*** The required doubling of the world's infrastructure in the next 15 years to achieve needed growth and jobs highlights the risk of locking in unsustainable infrastructure for the much longer term. Collective action is also needed to stem environmental degradation and infectious disease threats, which will otherwise push large populations into poverty and an unprecedented scale of forced migration.

There is no either-or choice between cooperative internationalism and national strategies to secure growth and financial stability. An open, competitive, and well-coordinated international order will enable win-win outcomes for nations. Its weakening will lead to lose-lose outcomes, as global growth and opportunities for new jobs are eroded over time, and as financial stability and the global commons become more fragile. Equally, cooperative internationalism will survive only if it helps the broad base of nations achieve inclusive growth.

3 Australia, Japan, and Singapore have embarked on an e-commerce Joint Statement Initiative, aimed at promoting trust, openness, and transparency in digital trade.

4 The IFIs are the IMF and the MDBs, the latter comprising the African Development Bank (AfDB), the Asian Development Bank (ADB), the Asian Infrastructure Investment Bank (AIIB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Inter-American Development Bank (IDB), the Islamic Development Bank (IsDB), the New Development Bank (NDB), and the World Bank Group.

THE AMBITION IS IN THE DOING

My colleagues and I in the G20 Eminent Persons Group on Global Financial Governance (G20 EPG) consulted widely on these issues and offered specific proposals in October 2018 to enable the international community to make the critical transition to this new, cooperative international order.

The reforms are within our reach. We must organize the world's multilateral development capabilities and resources in a new way to achieve greater and more lasting development impact. There is considerable potential to be unlocked by governing the system as a system rather than as individual institutions, and by achieving much stronger complementarity between global, regional, and bilateral efforts.

Effective country platforms, owned by governments, can maximize the contributions of development partners as a group—the IFIs, UN agencies, the increasingly important DFIs, and other partners. These platforms would also develop convergence around core standards such as debt sustainability; local capacity building; and environmental, social, and governance (ESG) standards. Importantly, convergence between official agencies will help private investment scale up.

There is also large untapped potential for joint action to mitigate risks within countries, as well as to diversify risks across countries, in order to attract new pools of private capital. Opportunities include building on the risk insurance capabilities of the World Bank's Multilateral Investment Guarantee Agency to take on risk from the MDB system as a whole, thus achieving the benefits of a globally diversified portfolio. We can similarly build standardized, diversified asset classes of developing-country infrastructure to attract institutional investors, who have to date been minimally involved.

Our biggest risk is complacency in the face of development challenges of unprecedented scale, urgency, and complexity in the next decade. The young populations that will enter the developing world's labor force—many in states with features of fragility—will be much larger than anything seen in past decades. Fifty percent of Africa's population is less than 20 years old. Automation and other technologies have also narrowed the window for countries to grow through labor-intensive exports. We must invest urgently to educate and skill up young people; mobilize private and public finance to develop critical infrastructure, including transformative cross-border projects that enable the growth of regional markets; and embark on domestic market reforms to maximize competition and jobs. The consequences of failure for this next generation will not be simply economic.

Likewise, the grave and multiple threats to the global commons demand immediate action. The G20 EPG recommended strengthening joint capacity to do so, through global platforms that bring together the players in each field under the coordination of the designated

UN guardian agency (e.g., the World Health Organization for infectious diseases) and the World Bank, which has the broadest reach among the MDBs. Specific commons will leverage the regional development banks and other stakeholders, including the major philanthropies.

We need further reforms to avert financial crises and to help countries grow without the recurring bouts of instability that are a feature of today's international monetary and financial system. We must deepen domestic financial markets. But we must also make it possible for countries to benefit from capital flows and run sustainable current account deficits, which are fundamentally needed at their stage of development, just as countries such as South Korea and Singapore did until the mid-1980s.

It is critical, too, that we build a more reliable global financial safety net to sustain open markets and avoid the need for emerging nations to build up excessive reserves at the cost of growth. The multilayered arrangements that have evolved over the last decade are highly uneven across regions and have major components that are untested in crisis. We should not wait for the next crisis before strengthening the global safety net.[5] We must ensure an adequately resourced global layer in the IMF and stitch together the current decentralized structure of global, regional, and bilateral arrangements. We should also put in place a more robust and integrated system of global risk surveillance through coordinated efforts by the IMF, the Financial Stability Board, and the Bank for International Settlements, while preserving the independence of their perspectives.

Policy thinking on many of these reforms has often been shaped by where one sits. We need a new collective resolve. It must be shaped by the urgency of the challenges the international community faces and motivated by the larger goal in which every nation has a vested interest: achieving a cooperative international order to keep the world open for growth, help achieve the aspirations of our citizens everywhere, and serve the global good.

5 During the global financial crisis, the US Federal Reserve's liquidity swaps with selected central banks were a critical intervention. We cannot be assured of such actions in the future. Further, in response to a joint call by the International Monetary and Financial Committee and the G20, a significant group of countries pledged US$450 billion to temporarily augment IMF resources during the crisis. This option of bilateral borrowings remains for future major crises but will require swift mobilization.

THE WORLD OF MORE UNPREDICTABLE AND HARDER-TO-UNDERSTAND NATIONAL AND GLOBAL ECONOMIES

MOHAMED A. EL-ERIAN

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Economies are getting more complicated and harder to predict, and not just for economic and financial reasons. Moreover, what's true at the national level is even more so at the global level, raising the possibility of self-feeding dynamics. Fortunately, not all of these developments are unfavorable. Understanding the underlying drivers and how to manage them better is the key to more welfare-enhancing outcomes at the national, regional, and global levels.

THE WHAT AND THE WHY

The global crisis that gripped the world economy 10 years ago and threatened to tip it into a multiyear depression was much more than a giant financial disruption and consequent "sudden stop." It highlighted deep structural fragilities, lagging understanding of the relationship between economics and finance, flawed incentive systems, and an abdication of important management responsibilities in both the private and public sectors.

No wonder the subsequent economic growth was too low and insufficiently inclusive, and this despite the massive stimulus provided by central banks. No wonder societies have experienced an erosion in their trust in institutions and "expert opinion," both private and public. No wonder the politics of anger and increased polarization have become defining themes for so many countries. No wonder regional and international economic relationships have become more tentative. And no wonder it took so long for the policy mind-sets to evolve away from overrelying on cyclical factors to embracing more forcefully the critical structural and secular dimensions of economies.

Recognition of Structural Forces

Ten years after the financial crisis, we now understand several factors much better:

- In the lead-up to the financial crisis, governments in most advanced economies had wrongly embraced finance as the main engine of growth. In the process, they did more than overcompete for international financial linkages, underregulate the sector, and inadvertently enable irresponsible and excessive risk taking. Critically, they also underinvested in people, infrastructure, and other genuine drivers of productivity and inclusive, durable prosperity. In that environment, existing growth models became less effective and concerns about excessive inequality broadened beyond income and wealth to encompass opportunity as well.
- Some long-standing economic relationships have become less stable and harder to predict—from wage and productivity developments to the relationship between unemployment and inflation. Accordingly, economic policy management has become more challenging.
- Accelerating technological change—including the interactions of rapid progress in big data, artificial intelligence, machine learning, and mobility—is altering not just what we do but also how we do it. Societies now face a growing number of challenging questions about the nature of work, as well as firm and sector organization. Also, recent advances have not just enabled the good but also enhanced the ability of "bad actors," state and nonstate, to disrupt the management of national security.
- Technology-related uncertainties are amplified by the potential emergence of what are effectively two major poles—China and the United States—with distinct operating models, especially when it comes to their respective governments' interactions with "big tech."
- Central bank policy experimentation, which was crucial to helping the world avoid that damaging depression, has come with "benefits, costs, and risks" (a versatile phrase used by former Federal Reserve Chairman

Ben Bernanke in August 2010 when he signaled the broadening objectives of the experimental policy regime). Having already exploited most of the benefits, we are now increasingly in the phase of navigating the costs and risks.

- Political narratives and parties have become a lot less supportive of globalization, free trade, and several of the key institutions that have underpinned the functioning of the global economy as we have gotten used to it.
- With all that comes the gradual and meaningful hollowing out of the middle of many distributions that have helped anchor economic, social, and political stability.
- The cohesion of regional arrangements is under greater pressure, including that of the European Union, which now faces a growing set of challenges on account of declining growth momentum with pockets of high debt, Brexit, migration, the growth of antiestablishment parties, and the increasing assertiveness of some central and eastern European members.
- Having lost trust in the effectiveness and stability of the long-standing core-periphery construct of the global economy (and many of its key multilateral institutions), some emerging economies have been devoting more attention (and financial resources) to building alternative setups and institutions. These actions add to the risks of global fragmentation and exacerbate what is already a complex process of policy coordination (and an increasingly ineffective one).

Short-Term Amplifiers

The structural uncertainties described above are being amplified by four shorter-term phenomena. Making things even more interesting, these four situations are playing out simultaneously, and they also have interconnections that amplify the scope for spillovers, contagion, and multiple equilibria.

First, growth patterns around the world have become less correlated, and especially so in the advanced world. Having emerged from the global financial crisis with similar challenges, the advanced economies essentially got stuck in a "new normal" characterized by unusually low growth, notable inequalities, and excessive policy reliance on central banks as the "only game in town." This atmosphere fueled the growth of a multifaceted antiestablishment phenomenon with less predictable outcomes, including some that not so long ago would have been deemed highly unlikely, if not unthinkable. It also had a host of negative implications—economic (such as the downward pressure on growth potential), political (increased polarization), financial (the shifting of debt burdens rather than their genuine alleviation), and institutional (less stable anchors). Yet it had the advantage that comes with countries' finding themselves in

the same boat—as unfavorable as that was—and therefore more open to multilateral discussions and coordination.

As 2017 came to an end and as 2018 evolved, many embraced the hope that this common boat was becoming a lot more favorable. The notion of a "synchronized pickup" in global growth took hold as four important geographic segments of the global economy all experienced better expansion prospects at the same time. Unfortunately, the underlying driving forces for expansion were quite different in each of these segments, including, crucially, in their sustainability.

The more durable pickup in one segment, the United States, was primarily the result of pro-growth policies, including tax cuts and deregulation. In Europe, it was due more to the natural healing process, the beneficial impact of which would likely prove harder to sustain without a proper policy handoff. In China, growth remained overdependent on credit creation in some important pockets of the economy. And in some systemically important emerging economies, it reflected rebounds from one-off "shocks" (such as demonetization in India, political uncertainty in Brazil, and the commodity price decline in Russia).

With that fragmentation, the advanced world has entered a phase of increasing growth divergence and therefore policy differences too. The latter have led to greater dispersion in equity market valuations, significant interest rate differentials between the two bond benchmarks (German Bunds and US Treasuries), US dollar appreciation, intensifying trade tensions, and greater financial volatility overall. More fundamentally, these developments raise the issue of subsequent convergence. Will the United States be pulled down by economic weakness elsewhere, or will the other countries converge upward?

Second, policy has become less correlated among systemically important central banks. After a period of coordination and correlation, there is now greater divergence in central bank policies. The Federal Reserve is notably advanced in its normalization, having stopped its program of large-scale asset purchases, hiked interest rates several times, and embarked on a balance sheet reduction process. The European Central Bank has announced its intention to exit its stimulus program, first by stopping asset purchases and then by hiking rates, in what are likely to be much more complicated circumstances. The Bank of Japan is less advanced, also facing the challenge of guiding markets away from its interest rate ceiling measure in an orderly fashion. And the Bank of England is having to balance inflation and Brexit considerations, both of which are uncertain.

This increased policy divergence is likely to be followed by a second, also "unusually uncertain," period. Again, there is no established playbook or historical experience for how this tightening of the global financial conditions will impact growth and financial stability.

Third, fragilities have already been exposed in some emerging markets. The immediate uncertainties were amplified by the currency crises in Argentina and Turkey, and the contagion risk for others. Some halving of the values of these countries' currencies in the first eight months of 2018 pointed to more than vulnerabilities in their fundamentals, such as tentative growth dynamics, foreign exchange mismatches, and excessive reliance on external credit. It also highlighted the extent to which technical and liquidity factors have become driving forces in markets. After all, how could you explain similar moves for two countries that have responded quite differently to financial turmoil?

Argentina followed a traditional crisis reaction function. It raised interest rates aggressively, complemented this action with a broader set of fiscal and structural policies, and secured large financial support from the International Monetary Fund (IMF). In contrast, Turkey sought to reinvent the emerging-market approach to a currency crisis by publicly dismissing the use of interest rates and interventions by the IMF.

The similarities under very different reaction functions point to systemic issues in play. Absent renewed market stability, over the next few months, risks could be characterized by the further disengagement of crossover investors from off-benchmark asset classes (starting with emerging markets) and, following the overpromise of liquidity, pockets of destabilizing illiquidity. That is what could constitute the transmission mechanism for contagion to emerging countries, whether they have strong or weak fundamentals. And that is what could expose greater fragilities in this asset class that will need to be managed skillfully.

Fourth, increased risk of trade tensions. All of this comes at a time when the trading regime has become a lot more uncertain. The United States and its major trading partners, including traditional allies, have engaged in a tit for tat on both trade tariffs and restrictions on foreign direct investments. In game theory terms, a traditionally cooperative game has turned uncooperative.

The risk is that this process will lead to a full-blown global trade war that tips the global economy into recession, accentuates financial instability, fuels the politics of anger, and increases geopolitical tensions. Fortunately, this scenario does not dominate the distribution of potential outcomes. The most likely result is a series of tweaks leading to still free but fairer trade that modernizes existing trade arrangements and addresses genuine grievances related to intellectual property rights, joint venture requirements, and nontariff barriers. But a global trade war cannot be ruled out.

There is also a probability, though small, that current tensions could culminate in the trade equivalent of the "Reagan moment." As it did in the military buildup race into which it drew the Soviet Union in the 1980s, the United States is destined to win a trade war, provided it is willing to underwrite the

risk of damage and unintended consequences in the process. The upside would be changes to the global trade landscape that would enhance growth in a significant and durable manner.

THE SO WHAT

The result of all of this is not just that we operate in a less predictable and harder-to-manage physical world. We are also increasingly migrating to a virtual world whose basic modes of operation and behaviors are still evolving, and whose systemic importance has developed much faster than governments, households, and companies were ready for—including the big tech firms themselves. Added to that are the risk of fragmentation at the global level, significant mistrust in expert opinion and established paradigms (such as the Washington Consensus), and a trend toward self-insurance.

This is a world full of both new opportunities and new risks. The key is to enhance the former and manage the latter. And this requires adjustments not only in institutions and operating models, but also in mind-sets—including those that pertain to growth models, the role of finance, and cross-border coordination.

Continuing with attempts to squeeze higher and more inclusive growth out of debt- or leverage-driven growth models won't work. What is needed is a comprehensive pivot to policies that focus on genuine and durable drivers of growth. While the economics discipline may not fully understand the drivers of growth, politicians and policy makers currently have enough information available for them to make progress on such areas as these:

- Education reform, infrastructure modernization and expansion, skill acquisition and retraining, and enhanced labor mobility—all made more urgent by advances in technology and the increasing risk of change and displacement that is likely to come with it
- Rebalancing demand management stances to deal with persistent imbalances and, especially in the context of regional economic arrangements, to minimize the risk that asymmetrical adjustment processes will unnecessarily curb growth
- Strengthening safety nets for the most vulnerable segments of the economy
- As distasteful as this may be, recognizing that in certain extreme cases (such as that of Greece), debt forgiveness may be the only realistic way to alleviate a liability overhang that erodes actual and potential growth

Having succeeded in derisking the banking system and, with the exception of a few areas, minimizing the risk of other systemic shocks from it, there is now a need to focus more on three additional areas: managing the morphing and migration of financial risk to nonbanks, ensuring a better "benefits, costs, and risks" equation for the evolving fintech

efforts, and reducing the general and well-ingrained tendency for finance to tilt toward value extraction rather than supporting value creation.

These efforts will not yield their full benefits if long-standing challenges in multilateral institutions remain only partially addressed. The IMF and World Bank cannot operate as effective global conductors and clearinghouses for best practices if their legitimacy and credibility continue to be undermined by voice and representation shortfalls and patchy effectiveness. These institutions need to become more forward-looking, more client-centric, and more agile.

CONCLUDING REMARKS

Determined action on these fronts would not constitute the entirety of what is still only a partially known solution set. But it would go a long way toward setting the foundation for improved economic performance, genuine financial stability, less inequality, and reduced political and geopolitical tensions.

Such progress is particularly important in an economic context that is becoming more uncertain and harder to predict at both the national and global levels. Without it, the world economy will be subject to increased risk of adverse spillovers and multiple vicious cycles. With time, even the more resilient and better-managed economies will find it hard, using a real estate analogy, to be good houses in challenged neighborhoods.

With better national and multilateral policies, these risks can not only be managed well but also give way to an exciting upside—that of virtuous cycles fueled by technological advances, underutilized resources, and lots of cash on the sidelines looking for productive opportunities.

BRETTON WOODS AT 75

Rethinking Multilateral Cooperation for the Modern Era

ARMINIO FRAGA

Founding Partner, Gávea Investimentos, and former President, Central Bank of Brazil

The 1944 Bretton Woods Conference established a multilateral framework for global cooperation on macroeconomic stability, trade, and development that has endured—despite inevitable disruptions and adjustments—for 75 years. We should celebrate and praise these achievements. And although this system of global economic governance is now under serious strain, the Bretton Woods institutions, together with more recently established international and regional forums, will still have a meaningful long-term role to play.

At the macro level, Bretton Woods was based on fixed but adjustable exchange rates, and it relied on the newly created International Monetary Fund to monitor the consistency of national policies and provide financial support to countries facing external shocks. The new World Bank (which began as the International Bank for Reconstruction and Development) provided support and advice on long-term investment projects for development and reconstruction. And another postwar institution, the General Agreement on Tariffs and Trade—expanded and reestablished as the World Trade Organization (WTO) in 1995—provided a framework for advancing free trade, based on multilateral rules and dispute mechanisms.

This global arrangement allowed plenty of room for different national and regional approaches, as long as policies did not lead to recurring balance-of-payments and inflation crises. Successful countries were able to accumulate more capital, especially human, and build institutions that made their gains more permanent. In many ways, the national strategies that paid off were convergence bets—ones that aimed to narrow productivity gaps with more advanced economies.

Alongside the economic advances, many commentators saw clear signs of political convergence toward more liberal democratic regimes, culminating in the fall of the Berlin Wall and the collapse of the Soviet Union. The American political scientist Francis Fukuyama summarized this narrative with his famous "end of history" thesis.

Over time, the Bretton Woods regime faced numerous challenges and crises. The move away from explicit exchange rate parities to a system of more flexible currencies in the early 1970s marked the end of the original postwar monetary framework, but formal and informal inflation targeting subsequently reanchored the system.

True, many developing countries suffered far greater inflation and balance-of-payments problems than did more mature economies, but efforts to restructure their international debts and deal with high or hyperinflation were quite successful. The World Bank and regional development banks adapted to a world of ever-greater capital needs by playing a more informational and catalytic role in areas such as infrastructure and institution building. And despite slow or no progress at the WTO level, many bilateral and regional trade and investment arrangements were put in place.

Today, however, global economic coordination has become more difficult, if not outright impossible in some areas. On trade, despite the proliferation of regional arrangements, there has been no meaningful multilateral progress since the Uruguay Round in 1994. On climate change and the environment—a contemporary existential imperative—recent negotiations have yielded limited results. Global public goods remain undersupplied in key areas such as security, migration, and global health. And debt continues to grow in many countries, often surpassing levels reached in the run-up to the 2008 global financial crisis.

Even some of the regional trade achievements of the past quarter century are now vulnerable, such as the European Union's single market (assuming Brexit happens), the recently replaced North American Free Trade Agreement, Latin America's Mercosur bloc, and the Trans-Pacific Partnership.

In parallel with these economic challenges, there is widespread popular frustration at most countries' inability to deal with the negative social implications of the current global development model.

In this context, it is no surprise that newer forums such as the G7, the G20, and the Financial Stability Board have partly replaced the formal Bretton Woods institutions. Because decisions made by international institutions often carry the force of law, many countries increasingly prefer to meet in forums that issue mostly nonbinding statements (a point often made by the late Tommaso Padoa-Schioppa, a former European Central Bank board member and Italian finance minister).

Although not as strong as the original Bretton Woods design, this evolving arrangement may indicate that the global system for economic governance is flexible and can adapt to changing circumstances. But for the larger countries or blocs, such as the United States, the European Union, China, and Japan, the formal Bretton Woods system is no longer central to macroeconomic stability, trade, or finance.

So what can we say about Bretton Woods in a world in transition?

First, with the United States less dominant and less willing to provide global economic and financial leadership, systemic instability is likely to increase. As the American economic historian Charles Kindleberger famously warned, such a scenario typically occurs in transitional moments when a global hegemon is absent. Some signs of such instability are already visible in trade and regional tensions, growing leverage, and rising nationalism.

Second, "Bretton Woods" should now be seen to include not only the original institutions but also more recently established global forums and regional arrangements. These mechanisms of cooperation constitute a realistic practical response to current challenges.

Third, one must ask whether developing countries will continue trying to converge with more advanced economies, and whether the expanded Bretton Woods family of institutions can remain meaningful stewards of global progress. My answers tend toward yes to both, if one takes a long-term view. Developing countries will aim to emulate the earlier successes of the Asian Tigers and eastern Europe. And countries will prefer dialogue and cooperation to failures like those of Venezuela and North Korea, which have opted out of the global system.

Last, this hopeful vision may now be under threat from the disturbing shift toward illiberal and populist political regimes around the world. But history shows that liberal politics and economic policies have undoubtedly delivered more progress and peace than any other system.

Seventy-five years ago, economic policy makers gathered at Bretton Woods to create a new financial order for the postwar world. Today, their successors can still draw on some of their achievements in designing a global economic governance system for the 21st century.

HAS GLOBALIZATION PEAKED?

Renewing the Prospect and Promise of Global Integration

CATHERINE L. MANN

Global Chief Economist, Citi, and former Chief Economist, Organisation for Economic Co-operation and Development

By many metrics, global integration has peaked. Is this a natural evolution—for example, is there a maximum desired share of foreign products in the consumption basket or a maximum fragmentation of production into global value chains that can be achieved?[1] Is this a beneficial outcome—for example, has global integration gone too far anyway, especially financial globalization? Considering these issues, the question really is, If globalization has peaked, is this development to be welcomed or countered?

As a prelude to the conclusions, it is true that global integration has been accompanied by challenging financial exposures and adjustment costs for firms and workers. But it is also true that the retreat of global integration in the last decade or so has been accompanied by worsening productivity growth and rising inequalities. The Bretton Woods institutions played an important role in fostering decades of postwar global integration. What role can they play in the near future to renew the prospect and promise of global integration's benefits while also mitigating its downsides of financial crisis and costly adjustment?

TRADE INTEGRATION HAS RETREATED

World trade intensity rose dramatically in the years following the founding of the Bretton Woods institutions but has stalled in the 21st century. One metric,

1 With thanks to Dane Burkholder, officer analyst, Citi.

exports plus imports as a share of global GDP, rose fairly steadily at first, and then at an increasing rate in the 1980s, about doubling from its level in the 1970s, only to stall at about 60 percent of world GDP toward the end of the first decade of the new millennium. Since then, this measure of integration has retreated (figure 1). Similarly, the elasticity of GDP with respect to trade peaked in the latter part of the 1990s before slowing down. By these metrics, globalization has peaked.

The decline in trade intensity is due in part to stalled progress on trade liberalization, which in turn is related to the coverage of trade negotiations and participants. The last completed multilateral round of trade negotiations was the Uruguay Round in 1995, which ushered in the World Trade Organization (WTO) and the General Agreement on Trade in Services (GATS). Since that time, WTO compilations show that as multilateral negotiations stalled, bilateral agreements skyrocketed, from 1 or 2 per year in the early 1990s to about 15 per year in the middle of the following decade; plurilateral agreements also flourished. Bilateral and plurilateral agreements have been described as either stepping stones or stumbling blocks to more extensive liberalization. Either way, they stick to sectors where deals can be reached, avoiding deeper reforms, which would generate the greatest gains but also the greatest adjustment challenges.[2] That said, sectoral agreements, such as the first Information Technology Agreement, have been successful at reducing protection for a widening group of signatories, supporting a significant increase in trade.[3] Yet the middle of the last decade saw the peak of trade negotiations of all types.

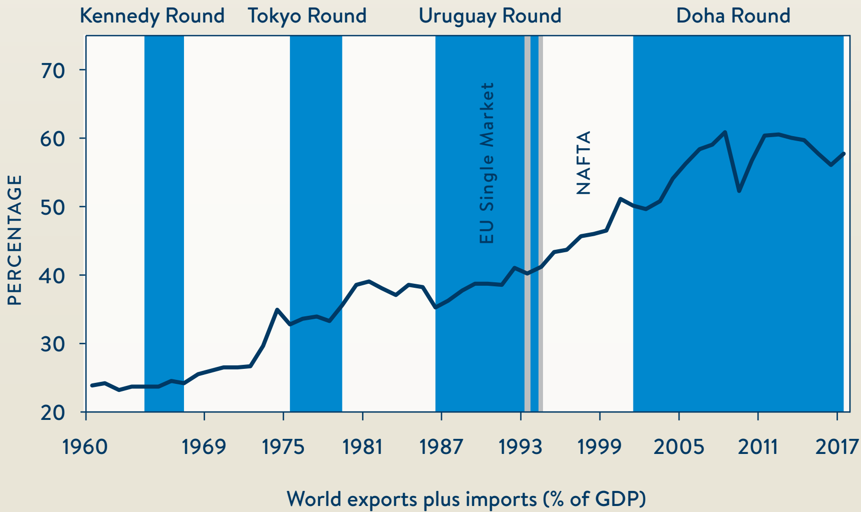
Peak trade integration can be linked to the changing nature of trade and of trading partners. To an increasing degree, global growth and trade growth depend on emerging markets and relate to the services sector. With respect to changing trading partners and patterns, as trade liberalization first took hold in the postwar years, trade among advanced economies (AEs) rose as a share of global trade. The oil crisis, the end of the gold exchange standard, high inflation, and subsequent recession years stymied intra-AE trade in the early 1970s and 1980s. But by the 1990s, it had recovered to its previous peak, accounting for about 60 percent of global trade.

However, from that point to the present, trade shares have changed again. Emerging economies (EEs) boosted their role, both as exporters to the AEs (via fragmentation of production into

2 Richard Baldwin and Elena Seghezza, "Are Trade Blocs Building or Stumbling Blocks? New Evidence" (CEPR Discussion Paper 6599, Center for Economic and Policy Research, Washington, DC, 2007).

3 Catherine L. Mann and Xiupeng Liu, "The Information Technology Agreement: *Sui Generis* or Model Stepping Stone?," in *Multilateralizing Regionalism,* edited by Richard Baldwin and Patrick Low (Cambridge, UK: Cambridge University Press, 2009), 182–216.

FIGURE 1.
GLOBAL TRADE VOLUME AS A PERCENTAGE OF GDP, 1960–2016



SOURCE: Data from World Bank
EU = European Union; NAFTA = North American Free Trade Agreement.

global hub-and-spoke networks) and via intra-EE trade. Now, AE-to-AE trade accounts for only about 40 percent of global trade. Because average protection measures in AE markets are lower than those in the EEs, a rising share of EE trade means that a greater share of global trade is burdened by protection, including behind-the-border protection,[4] and this is one factor underlying peak globalization.

The changing patterns and intensity of trade flows also have implications for competitive pressures among firms in AEs. Products from AEs increasingly compete with products from EEs. Studies from the Organisation for Economic Co-operation and Development (OECD) delve deeper into the nature of this competition, with an important new finding. As a starting point, AEs specialize in more complex exports than do EEs. Over time, and as expected, EE products move up in

4 John S. Wilson, Catherine L. Mann, and Tsunehiro Otsuki, "Assessing the Potential Benefit of Trade Facilitation: A Global Perspective" (World Bank Policy Research Working Paper No. 3224, World Bank, Washington, DC, February 2004), https://ssrn.com/abstract=610266.

complexity, and AE products face these new competitors.[5]

But there is a second dimension to this competition. As EE products push into the complexity space, AE products compete more with each other within a now narrower product set.[6] The research finds that the competitive pressure among AEs is greater than the competitive pressure from the EEs. AE firms' responses to such intensified product competition varies, but they can include outsourcing more components to reduce cost or entering into mergers and acquisitions to protect market position. An alternative strategy could involve AE firms' innovating and expanding the complexity spectrum; to some degree, this process is underway with technology products. But evidence on the slowdown in productivity growth is consistent with the evidence that AE competition at the complexity frontier is less strong than at some earlier times.

Another feature of recent trade is the rising importance of international trade in services. Although accounting for only about 25 percent of global trade, cross-border services trade has been growing more rapidly than trade in goods, is more globally dispersed across markets (as compared with the concentration of goods production into "factory" North America, Asia, and Europe), and is more trade cycle resilient (i.e., is less tightly correlated with and dampened relative to the business cycle).

Trade in services tends to face higher barriers than trade in goods, so trade in services could potentially be rising faster than it is. The WTO and GATS constitute an important start to services trade liberalization, but there is still a need to institutionalize the presumption of openness in trade in services. To push past "peak globalization," deeper liberalization by emerging markets in goods and by all countries in services will be needed.[7] But is there an incentive to liberalize trade in services? Services account for about 50 percent of the value added in manufacturing exports. Liberalization enhances the competitiveness of services, which increases the competitiveness of manufacturing. There are two channels: reduced input costs and enhanced interfirm competition in the services sector.[8]

Another facet of the decline in trade intensity in recent years is the unraveling of global production networks

5 Sonia Araujo, Thomas Chalaux, and David Haugh, "Who's in Your Export Market? The Changing Pattern of Competition in World Trade" (OECD Economics Department Working Paper No. 1526, Organisation for Economic Co-operation and Development, Paris, 2018).

6 Araujo, Chalaux, and Haugh, "Who's in Your Export Market?"

7 Bernard M. Hoekman and Aaditya Mattoo, "Liberalizing Trade in Services: Lessons from Regional and WTO Negotiations" (EUI RSCAS No. 2013/34, Robert Schuman Center for Advanced Studies, European University Institute, Fiesole, Italy, 2013); Organisation for Economic Co-operation and Development, *Services Trade Policies and the Global Economy* (Paris: OECD Publishing, 2017).

8 David Haugh, Alexandre Kopoin, Elena Rusticelli, David Turner, and Richard Dutu, "Cardiac Arrest or Dizzy Spell: Why Is World Trade So Weak and What Can Policy Do About It?" (OECD Economic Policy Paper No. 18, Organisation for Economic Co-operation and Development, Paris, 2016).

(so-called global value chains, or GVCs). According to the OECD's structural GVC indicator, GVCs unraveled over the years 2011–2015 (the latest data) after having deepened for the previous two and a half decades. Global production networks, as well as managerial and contractual relationships among firms, are a source of technology transfer, economies of scale, and cluster economics, all of which support productivity growth.[9] OECD firm-level analysis shows that the most productive firms are those that are part of global families, linked through hub-and-spoke networks. This research finds that exporting to a multinational corporation is associated with a greater productivity gain than importing from one, which suggests the importance of domestic reforms to get the most from global integration.[10]

The limits of GVCs might have been reached within some sectors and economies, given enhanced concern for supply chain vulnerability and desire for supply chain transparency. However, limitations on or, worse, the unraveling of supply chains before poorer countries have a chance to gain a foothold in global trade undermines these countries' prospects for economic integration, in turn constraining their convergence to higher living standards. Global production networks that disintegrate on account of protectionist policies deny productivity improvements and competitiveness gains to all economies touched by the protection. Global Trade Alert data show measures that stymie trade are on the rise, leaving the stock of protectionist measures higher than in any recent time period.[11]

FINANCIAL INTEGRATION HAS STALLED

Cross-border financial flows, as measured by the sum of assets and liabilities as a share of GDP, peaked in 2007 (figure 2). The subsequent retreat has taken place mostly in AEs. Emerging markets other than China stabilized their exposures, leaving China as the country with a rising financial exposure. The retreat is not completely negative. Reduced financial integration could moderate a transmission channel for economic crisis. On the other hand, restraining global financial markets reduces the gains from diversification, trade and investment finance, and intertemporal growth smoothing.[12]

The types of financial integration have also changed. Bank foreign claims and bonds issued in international

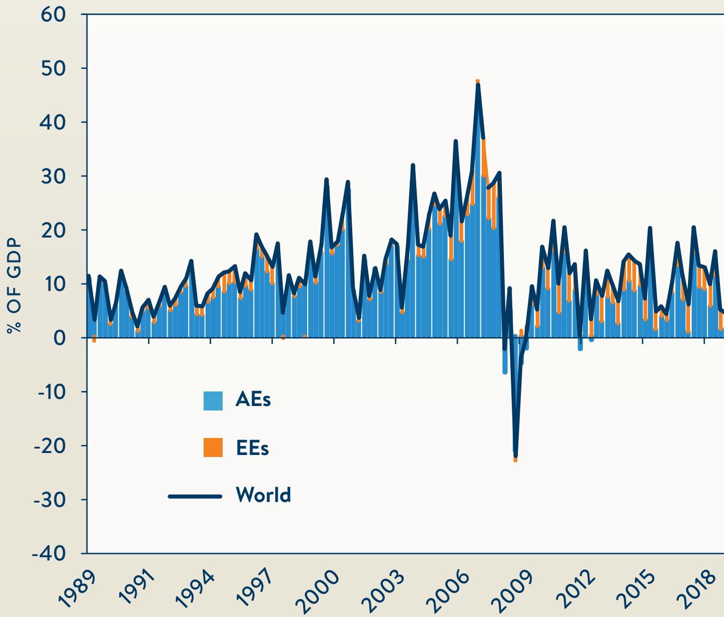
9 *Measuring and Analyzing the Impact of GVCs on Economic Development* (Washington, DC: World Bank Group, 2017).

10 Chiara Criscuolo and Johnathan Timmis, "The Relationship between Global Value Chains and Productivity," *International Productivity Monitor* 32 (2017): 61–83.

11 Global Trade Alert. https://www.globaltradealert.org/ (accessed 02/19).

12 Aida Caldera, Alain de Serres, Fillip Gori, and Oliver Rohn, "Economic Resilience: Trade-Offs between Growth and Financial Fragility," *VOX CEPR Policy Portal* (blog), March 28, 2017, https://voxeu.org/article/economic-resilience-growth-and-economic-fragility-trade.

FIGURE 2.
TOTAL ASSETS AND LIABILITIES AS A SHARE OF GDP, 1990–2017



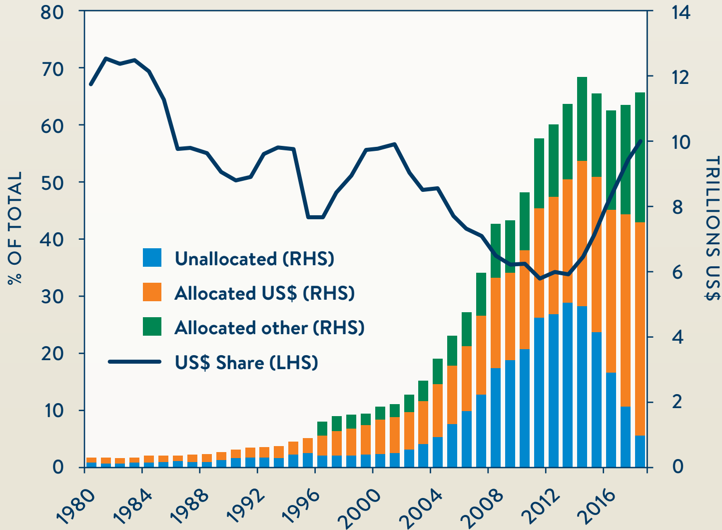
Source: Data from International Monetary Fund balance-of-payments statistics and Citi Research.
AEs = advanced economies; EEs = emerging economies.

markets peaked in 2007 and have decreased ever since. Other types of global international claims, including nonbank financial flows, peaked in 2007 and have been steady ever since. Lower global connectivity through banks could make contagion and the taxpayer consequences of financial crisis less severe by reducing government responsibility for "too-big-to-fail" institutions. But the data suggest that the nonbank private sector may now be the dominant channel for transmission of financial turbulence, and the nature of networks and implicit support is less well known.[13]

Currency, maturity, and liquidity mismatches can be present in nonbank finance. OECD research points to which types of macroprudential policies reduce the risks of crisis while not limiting the upside gains from financial integration. Portfolio debt flows have been associated with greater risk of financial crisis and so warrant particular attention. Low debt-to-income ratios can help avoid excessive exposure to real estate, which

13 "Global Shadow Banking Monitoring Report 2017" (Financial Stability Board, Basel, Switzerland, 2018).

FIGURE 3.
FOREIGN EXCHANGE RESERVES AND US DOLLAR SHARE, Q4 2015–Q1 2018



SOURCE: Data from International Monetary Fund, "Currency Composition of Official Foreign Exchange Reserves" (accessed 02/19), http://data.imf.org/?sk=E6A5F467-C14B-4AA8-9F6D-5A09EC4E62A4; Citi Research.
RHS = right-hand side; LHS = left-hand side.

tends to be associated with financial crisis in AEs.[14]

International reserves are another measure of financial globalization, and they also appear to have peaked. After increasing from about US$0.5 trillion at the start of the floating rate period, international reserve holdings rose steadily and then accelerated in the early years of this century, to peak at US$12 trillion in 2010. Since then, reserves have moved sideways. The US dollar's preeminence as the international reserve currency has come under question, and compared with the 1980s, the dollar share has trended lower, albeit with some technical dips and rises (figure 3).

International reserves are an "insurance policy" against unstable financial flows, although countries use this insurance policy to offset movements in foreign capital to different degrees. Excess reserves can be viewed as a drag on global demand and on a country's

14 "How to Restore a Healthy Financial Sector That Supports Long-Lasting, Inclusive Growth?" (OECD Economics Department Policy Note No. 27, Paris, Organisation for Economic Co-operation and Development, 2015).

potential growth, in that they represent savings rather than demand, and they are invested in low-return financial investments rather than productivity-enhancing real investments.[15] With respect to the rising US dollar share, some of this increase comes as an outcome of net stabilizing interventions and some from the incorporation of Chinese reserve holdings into the "allocated" category.[16]

CROSS-BORDER PEOPLE FLOWS HAVE NOT PEAKED

Increased migration and global tourism mean that, unlike products or finance, flows of people around the world aren't slowing down. According to OECD and World Bank data, the stock of documented migrants rose from about 150 million in 1990, about equally from advanced and emerging markets, to about 250 million in 2017. In the last decade, the bulk of the increase in the stock of migrants is within the AEs. This stock of migrants accounts for about 3 percent of the global population. Increased migration is beneficial to economies over the long run and conducive to native and aggregate prosperity. In Germany and the United Kingdom, for example, if immigration had been frozen in 1990, real GDP in those economies would have been lower by around 155 billion euros and 175 billion pounds, respectively, in 2014.[17]

On the other hand, financial flows associated with migration have varied. Remittances associated with migration rose steadily over the 1980s and 1990s, accelerating in the following decade before stalling at about US$600 billion in the middle of the present decade, and have since recovered. There are advantages and disadvantages to remittance flows. On the one hand, remittances increase the private incomes of recipients that can be used to finance education or entrepreneurship without incurring debt. On the other hand, remittance flows might undermine incentives for economic activity among recipients, and they could harm fiscal balances (through tax avoidance) and thus limit capacity to fund investment in large-scale public projects.

Temporary flows of people—through international tourism—have boomed, more than doubling since 1995 to about 1.2 billion people in 2016. Tourism arrivals in the Asia-Pacific region rose the most, but the bulk of tourist arrivals are in the European Union. The financial flows associated with tourism are

15 "Assessing Reserve Adequacy," International Monetary Fund, accessed November 20, 2018, https://www.imf.org/external/np/spr/ara/.

16 Anna Wong, "Measuring and Inference in International Reserve Diversification" (Working Paper Series 07-6, Peterson Institute for International Economics, Washington, DC, 2007).

17 Ian Goldin, Andrew Pitt, Benjamin Nabarro, and Kathleen Boyle, "Migration and the Economy: Economic Realities, Social Impacts & Political Choices" (Citi Global Perspectives & Solutions, Citigroup, New York, 2018).

increasing too. World Travel and Tourism Council and World Bank data calculate the direct contribution of tourism to global GDP at about 3 percent in 2017, increasing at about 4 percent per year in real terms. The indirect contribution to GDP (via local services such as restaurants and hotels) is more than double the direct contribution.[18]

GLOBALIZATION, PRODUCTIVITY, AND INEQUALITY: POSITIVELY OR NEGATIVELY CORRELATED?

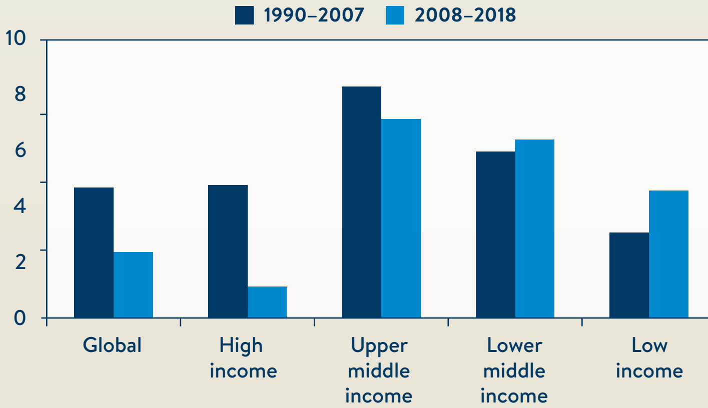
What other considerations are relevant for whether to cheer or bemoan global integration in retreat? The global financial crisis exposed and exacerbated brewing macroeconomic, societal, and geographic troubles, including increasing debt burdens, rising inequalities, and deteriorating productivity growth. Are these troubles caused by globalization, such that a retreat from globalization will help to remedy them? The return to global growth since the financial crisis has not improved the trajectories of debt, inequality, or productivity, but globalization has stalled. So the problem may be not too much globalization, but too little globalization. What is the evidence on the relationships between globalization, productivity growth, and inequalities?

Post–financial crisis, although the average rate of GDP growth has nearly recovered to its longer-term trend, about 15 percent of global GDP was lost, apparently permanently: policies never supported a strong enough boom to recover the output loss. As well, the rate of GDP per capita growth slowed: average GDP per capita growth from 2008 to 2018 was 2.3 percent year over year, compared with 4.7 percent from 1990 to 2007 (figure 4). This fall was most pronounced in high- and upper-middle-income countries, whereas for lower-middle-income and low-income countries, GDP per capita growth increased. Rather than convergence up, there appears to have been convergence down. Sluggish global integration is both a cause and an outcome of the loss in output and the divergence in growth prospects in terms of GDP per capita.

The slowing into retreat of globalization is correlated with the evolution of labor productivity. Productivity growth has been weak since the financial crisis, although it was already sluggish. Labor productivity in OECD countries has grown at about half the rate of the precrisis period. Productivity growth has slowed across most industries, particularly manufacturing, although the growth in manufacturing has outpaced that in services. Research cited above confirms the links between GVCs, globalization, and productivity. It should be no surprise that all are in retreat

18 "Travel and Tourism Power and Performance Report," World Travel & Tourism Council, https://www.wttc.org/publications/2018/power-and-performance/.

FIGURE 4.
DIVERGENCE IN GDP PER CAPITA GROWTH
Avg. YoY % change in GDP per capita



SOURCE: Data from World Bank and Citi Research.

together. A recommitment to policies that support deeper integration is a key ingredient in the recipe to improve productivity growth.

But inequality has risen; isn't this due to globalization? There are multiple dimensions of inequality—within and across generations, within and across regions. Globalization is often cited as a cause of lost manufacturing employment, a factor related to income, intergenerational, and regional inequalities. A closer look at changes in manufacturing employment highlights that certain kinds of trade do matter for manufacturing job loss, but also that factors other than trade are at work. Research shows that imports for final consumption are negatively associated with manufacturing employment. But imports of intermediates are positively associated with manufacturing employment, consistent with the results of studies of GVCs. Investment in information and communication technology and in machinery, both GVC intensive, has tended to be positively associated with manufacturing employment. Further, in AEs, losses in manufacturing employment are correlated with changes in consumption preferences toward services rather than goods.[19]

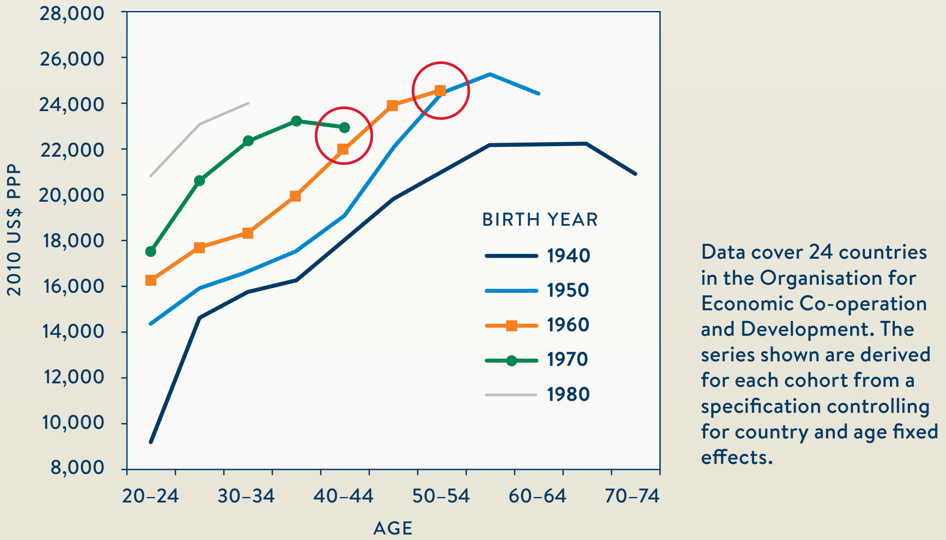
Regional inequality has increased. Successful economic clusters based on manufacturing can crowd out other sectors by attracting human resources and paying them well. But if the core of the cluster weakens, the whole cluster may fail, potentially leaving the associated

19 "How to Make Trade Work for All," in *OECD Economic Outlook* (Paris: OECD Publishing, 2017), 63–106.

FIGURE 5.

SLOWED INCOME GAINS ACROSS GENERATIONS

Earnings versus age for generations born in a given year



Data cover 24 countries in the Organisation for Economic Co-operation and Development. The series shown are derived for each cohort from a specification controlling for country and age fixed effects.

SOURCE: Organisation for Economic Co-operation and Development, *Preventing Ageing Unequally* (Paris: OECD Publishing, 2017).

PPP = purchasing power parity.

region worse off. Changing patterns of trade and technology have put some clusters in AE regions at risk. But the research that uses a regional perspective yields the same conclusion as research based on a national perspective: technological change dominates trade shocks in triggering inequality.[20]

Regardless of the type of shocks, because firms and employment are regionally concentrated, technology and globalization shocks will have localized implications, and localized implications point to the need for policy strategies at the subnational level. A policy recipe that develops place- and person-based initiatives of education, diversification, and mobility services is needed. A retreat from globalization is not part of that recipe.

Across generations, the brunt of the output loss and the change in labor productivity has been borne disproportionately by younger generations (figure 5). Usually real income rises over a lifetime, but this has not been

20 Elena Rusticelli, David Haugh, Axelle Arquie, and Lilas Demmou, "Going Local: A Regional Perspective on How Trade Affects Labour Markets and Inequality" (OECD Economics Department Working Papers No. 1530, Organisation for Economic Co-operation and Development, Paris, 2018).

true for recent cohorts. For those born in the 1960s, income growth falters in their peak earning years (in their 50s). The situation for the 1970s-born cohort is worse: their income growth falls in their formative years (their late 30s). In all, these generations will be challenged to achieve their own dreams while supporting their fiscal commitments to the health and pensions of their parents. How is this predicament related to globalization? The earlier cohorts grew up in an environment of deepening globalization and rising productivity growth, whereas their children live in a period in which both are in retreat.

CONCLUSIONS

Global integration—whether through trade and production networks, financial flows, or migration and tourism—is a process. Consumers, firms, and workers are all part of that process. The benefit of the process is productivity growth, which is the source of durable economic well-being and helps protect an economy in the face of financial volatility. The challenge of the process is in the adjustments that face workers and firms. Policy choices and business decisions can help create an environment in which firms and workers are resilient and able to turn the process to their benefit.

In 1944, the Bretton Woods institutions were set up to promote trade and global integration and to support transformation with the objectives of increasing global and national growth and economic well-being. The retreat from the principles of Bretton Woods has coincided with a retreat from globalization, stagnant productivity growth, and widening inequalities. A renewed partnership between the Bretton Woods institutions and the objectives of domestic policies is needed to renew the prospect and promise of global integration to benefit all.

The following outlines a plan for renewing the partnership for the next 75 years:

1. Renewing prospects for globalization:
    a. ***Trade negotiations.*** Trade negotiations have stalled, whether multilateral, plurilateral, or even bilateral. The Bretton Woods institutions need to continue to explore open sectoral approaches whereby a core set of countries can reach agreements to further liberalize trade. Such approaches create momentum and catalyze participation by other economies.
    b. ***Engaging emerging-market economies.*** Because emerging markets are a rising share of global trade, a challenge for the Bretton Woods institutions is to convince EEs of the benefits of globalization and to reduce barriers facing not only AE-to-EE trade but, importantly, trade between EEs.
    c. ***Services.*** Because trade in services is growing quickly and is often the comparative advantage

of AEs, and because services are key to competitive goods trade, the liberalization of services trade needs to be reinvigorated. The WTO and GATS need to embrace a negative list approach (similar to that of the earlier General Agreement on Tariffs and Trade, or GATT), whereby services sectors are presumed to be open on a most-favored-nation basis unless specifically derogated.

d. ***Financial integration.*** Reviving the role of the Bretton Woods institutions of supporting financial integration while reducing the fear of crisis could reduce excess international reserves holdings, with a potential benefit of real investment to support potential output, productivity, and growth. Reassessing types of financial integration to maximize real investment and gains is an important task.

2. Renewing the promise of globalization:

   a. ***Competition, innovation, and globalization.*** A new agenda for the Bretton Woods institutions should focus on innovation and competition as part of the mandate to deepen globalization, which would renew the promise that globalization and productivity growth go hand in hand.

   b. ***Domestic strategies to meet globalization and inequality challenges.*** A new agenda for the Bretton Woods institutions recognizes that the promise of globalization will not be met unless domestic policies, including those at the subnational level, are deployed to ensure that gains from globalization are more widely shared.

TOWARD A NEW ECONOMY OF TRUST

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Our economic well-being depends on ever more complicated and interconnected transactions and decisions that cross over traditional borders and sovereignties. This interdependence forms a delicate network of interactions. Trust at each stage is crucial, but the balance can be fragile. When it is lost, the impact can be wide-reaching and perhaps irreparable. The "economy of trust" is about using modern technology and innovations, empowered by the concept of "trust by design," to reinforce and sustain this network.

Day-to-day transactions generally involve questions. For example, a consumer will ask, *Can I enjoy my milk with confidence? Can I trace it "from farm to fork"?* Behind such questions posed by consumers lie a number of other related queries voiced by all those engaged in supplying milk. The farmer may wonder, *Is the cow feed free of harmful constituents? Where does the feed come from? Can I track the milk after it leaves my farm?* The wholesaler might inquire, *Am I certain of the origin of the milk? Can I trace it throughout the supply and distribution chains?* The retailer wants to know, *Can I be sure the milk has not been adulterated or diluted? Am I on a level playing field with my competitors?* The authorities ask, *How do we ensure that economic actors are paying the correct taxes or receiving the right subsidies? How do we facilitate compliance with health standards?*

TRUST IS ESSENTIAL

The questions set out above are distinct, but what they have in common is their reliance on trust. Every day, economic and social actors make a myriad of decisions based on the trust they have in their transaction partners, in the transactions themselves, in their governments, and even in the global environment. Trust at a micro level has an impact at a macro level, as well as on the global stage. This simple example of the glass of milk is

replicated millions of times daily, in more or less complex situations.

When this trust is compromised, economic activity suffers and social cohesion is undermined. In the past, breaches in the supply and distribution chains of food products have resulted in significant economic costs—loss of human lives, destruction of livestock, damage to the reputation of companies, and ultimately, changes in consumers' habits. In other contexts, trade in illicit goods and services may support the financing of criminal enterprises and terrorist organizations. The underdeclaration of tax due hinders domestic revenue mobilization, challenging the efficiency of governments and feeding a sense of unfairness. Identity theft undermines online sales, drives the darknet, and more ominously, facilitates human trafficking. Unprotected voter rolls endanger the credibility of elections and democratic systems. Lack of trust may even play a role in the perceived sense of loss of government sovereignty and in doubts about the continued improvement in living standards.

When trust is enabled, the benefit is substantial. Enabling trust in economic relations is a key driver of growth and can transform business relationships. Trust is needed to promote an economy that is inclusive, transparent, and accountable. Trust promotes efficiency, facilitates company relations with suppliers and customers alike, and reduces administrative costs. It can increase consumer confidence, a key ingredient in spending decisions. For governments, trust can facilitate the collection of taxes needed to finance necessary public services. For citizens, it can ensure that the government and the private sector are seen as legitimate actors making good use of limited resources.

BUILDING A NEW ECONOMY OF TRUST

"Enforcing trust" must give way to "enabling trust." Governments, businesses, consumers, and citizens have relied over time on many ways to generate trust. In some circumstances, a handshake might be sufficient to cement a deal. Governments often take steps to enforce trust through regulations and programs, such as hiring quality and tax inspectors to scrutinize production sites and tax returns, or imposing penalties on those who misbehave. Such an approach is never completely successful and entails significant costs. The rapid development of new technologies is opening up a new, more efficient approach that benefits all stakeholders, whereby enforcing trust can be replaced by enabling trust.

The technology-driven enabling of trust underpins the economy of trust and ultimately acts as a tool of prevention. This change of paradigm is facilitated by innovation, the combination of digital and material technologies, advances in data analysis and artificial intelligence, and the ability to create trust by design. Digital solutions have major roles to

play: enabling products and transactions to be seamlessly and securely identified, authenticated, tracked, and traced throughout the product life cycle; safeguarding intellectual property rights; assuring the correct application of tax policies; protecting the integrity of personal identity; and promoting citizens' well-being.

Trust is strengthened by third-party validation. Governments are increasingly challenged by the evolving nature of borders and the virtual world created by the Internet. In response, they have classically adopted the "trusted trader" model, based on risk profiling, self-regulation, and self-declaration. But what happens when it fails? What if producers or distributors cheat? Looking for fraudulent behavior is like looking for a needle in a haystack. A third-party validator tasked with guaranteeing the legitimacy of supply and distribution chains can ease the burden on stretched governments and deter rogue operators.

DIGITAL SOLUTIONS DESIGNED TO ENABLE TRUST

Secure track and trace (T&T) solutions open up a wealth of opportunities. They can ensure that we know where a product and its constituent components come from, that production conditions were as prescribed, and that its journey from manufacturer to consumer is identified and recorded. There are four steps to T&T. Step one: The identity of the product—the "product passport"—is created, using automated verification equipment and processes. Step two: Unique authentication marks are applied to the product or its packaging. They could take the form of a secure label or stamp affixed to the packaging, or a direct mark on it. Physical security features are combined with a digital data bearer, such as a two-dimensional bar code. Step three: The product's journey to the consumer is tracked, with key events recorded. Consumers can check the digital marks of any product they purchase thanks to applications on their smartphones. Through their reporting of suspicious products, consumers contribute to the fight against illicit trade and are actively empowered to build an economy of trust. Step four: The data generated in the previous steps can help build a "digital twin" version of the product that can be exploited thanks to business intelligence. At a broader level, these product-specific data can be linked to or integrated with data from multiple other sources, facilitating interagency data exchange. Secure markings represent court-admissible evidence for the prosecution of offenders.

Governments are increasingly deploying secure T&T systems to manage high-risk situations, such as combating tax fraud. A wide range of excisable products are covered by these systems, such as tobacco, beer, wine, spirits, mineral water, soft drinks (increasingly relevant with the imposition of health-driven "sugar taxes"), and CDs and DVDs.

Early adopters were Brazil, Malaysia, and Turkey. They were joined by countries such as Chile, Ecuador, Georgia, Kenya, Morocco, and Tanzania. Using SICPATRACE® solutions, they have optimized their collection of tax revenue and enhanced their capacity for tax administration. They have also protected the legitimate economy, created a level playing field, improved public health, and empowered citizens. Similarly, in the health sector, the serialization of pharmaceutical products helps create trust that a pack of pills is genuine. In the oil sector, the injection of a secure molecular marker into the fuel ensures that gasoline bought at the filling station is unadulterated, does not damage the vehicle, and fully respects tax laws.

Emerging digital integrity solutions will strengthen current solutions to bolster trust. To be effective, digital integrity solutions need to deliver on multiple levels, ensuring the integrity, immutability, and security of data; freedom from tampering and counterfeiting; confidentiality, privacy, and right of consent; sovereignty; traceability, auditability, and accountability; device integrity; and system resilience. Importantly, data must be protected from hacking and from leaks. Those transacting in the digital world must own their own data and the proof of their transactions, independently from those who manage the system. Transaction proof can take the form of a "digital receipt," equivalent to the old bank receipt received after a deposit. To guarantee these properties and enable trust, digital integrity solutions need to incorporate several layers of technologies that mutually reinforce each other, including cybersecurity, cloud computing, encryption, digital identity, artificial intelligence, a digital-physical link, and blockchain. In Estonia, blockchain secures a large number of digital records and databases to make them immutable and tamperproof. Blockchain further secures the traceability and auditability of data, making people accountable for their interventions. But again, a single technology—even blockchain—will not be sufficient to solve all issues.

Digital solutions will facilitate the collection of data, but the use of these data must be appropriately regulated. On the one hand, the generation and effective exploitation of data and digital technologies (such as tracking illicit financial flows) can help combat crime, generate value for consumers (i.e., the data can be monetized), and deliver efficiency gains for businesses. Digitalization of identity has the potential to unlock access to banking and social safety nets, and more broadly, to assure economic gains for all. On the other hand, however, digitalization can endanger the right of individuals to privacy, which in some cases might even be life threatening. That is why so many governments are addressing the issue of digitalization, data privacy, and ethics.

"Enabling trust" is likely to provide the most favorable cost-benefit ratio for

all actors. It is clear that digital solutions have a cost in terms of research, development, and implementation. However, the cost of alternative solutions—we mentioned posting tax inspectors inside production plants—is clearly higher. The Kenya Revenue Authority reported that its new digital tax stamp system was much cheaper than the previous control system, that cost reduction was a key driver of choosing a digital solution, and that digitalization had improved efficiency. Ultimately, the cost of digital solutions must also be balanced against the option of not adopting measures to create the economy of trust. Common sense dictates their adoption.

As technology evolves and digitalization deepens, new trends will emerge. "Digital twins" that mirror real transactions and assets are becoming more common. The gap between physical and digital transactions will become increasingly blurred. For government, this development means that the declaration process used for taxation will be replaced with transaction-by-transaction monitoring based on trust by design. Governments will move away from being enforcers of standards and taxes, with all the cost and complexity that this role traditionally entails, to become certifiers of trusted third-party technology agents. The free-market economy will continue to drive technology solutions that create value and generate benefits for businesses, consumers, and the government—provided governments facilitate an enabling environment in which innovation can thrive. As global demographic shifts continue, there will be increased incentives to ensure that technologies are inclusive. It is vital that the full range of technologies, be they material or digital, and their benefits be accessible to the vast majority. New technologies must not be resource greedy and must help us make better, indeed the best possible, use of the world's scarce resources, promoting a healthy and sustainable environment. Digitalization and data will modify governments' approach to legislation and regulation. Governments will need to strike the right balance between technology-specific measures and simple solutions that are globally compatible.

THE ROLE OF THE INTERNATIONAL COMMUNITY

The economy of trust is vital in supporting achievement of the Sustainable Development Goals (SDGs) by 2030. None of the 17 goals directly aims to promote trust, yet nobody expects that any of them can reasonably be achieved without strengthening trust. Goal 1.A mandates the significant mobilization of resources by governments to implement policies to end poverty in all its dimensions. The adoption of secure T&T solutions can help substantially with domestic resource mobilization. Goal 14.6 mandates that countries implement international instruments to combat illegal, unreported, and unregulated fishing. Fish traceability systems can enable trust among all actors in a sector fraught with challenges. And that is not to forget

that the measurement of progress toward the SDGs requires trusted data, which in most cases can be generated and collected using digital technology.

The mandate of the International Monetary Fund (IMF) and the World Bank to provide policy advice, program financing, and technical assistance means that these two institutions have a key role in the economy of trust. Public support for the continuing role of international institutions such as these two depends on their relevance in a globalized world. These institutions emphasize good governance and the rule of law. These key pillars to enabling trust could be supplemented by these institutions' lending support to the full range of available technologies.

To keep up with the evolving economic landscape and pace of digitalization, both institutions need to be well informed about the characteristics of technological progress, the linkages between technological progress and economic outcomes, and the technology standards set by other international institutions. Both institutions are becoming more open to interacting with providers of technology solutions. Recognizing the need for such solutions, the World Bank has launched the Global GovTech Partnership, bringing together governments and the private sector for digitalization. The IMF and World Bank must also fully leverage the work done by other international institutions. For example, the World Health Organization Protocol to Eliminate Illicit Trade in Tobacco Products mandates the adoption of digital T&T solutions for tobacco products and dictates that such systems be developed by third-party agents, not by the tobacco industry itself. For its part, the Organisation for Economic Co-operation and Development has taken the lead on disseminating knowledge about digital technologies, including blockchain. The staff of the World Bank and the IMF would benefit from a deeper understanding of such digital technologies. Finally, technical assistance given by both Bretton Woods institutions—often assessed by recipient countries as the most beneficial support they receive—is still largely limited to training officials and supporting the design of institutions and internal governance systems. Relatively little technical assistance is given in terms of advice and provision of concrete technology solutions to help authorities strengthen their processes and move up the technology ladder. This gap is waiting to be filled and presents an opportunity for both institutions.

The relevance of the mandate of the Bretton Woods Committee is undeniable. Bringing together representatives of international institutions, governments, and the private sector, and promoting the cross-fertilization of ideas and innovation to address current and upcoming challenges, are essential. We strongly support this ambition. The Committee should continue to stimulate discussions on emerging topics linked to innovation and technology through organizing seminars as well as including these topics at its Annual Meeting and International Council Meeting. It should extend this

discussion beyond the financial sector, addressing innovation, technology, and the economy of trust in the context of the real sectors of the economy, the increasing cross-border activities, and the spread of public-private partnerships. Thanks to these discussions and linkages, the committee will contribute to promoting a better understanding among actors and demonstrating the value of international economic cooperation based on trust.

BETTER BUSINESS WITH BRETTON WOODS

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In business, past performance is not a guarantee of future returns. This caveat also applies to the future returns on investment in the Bretton Woods architecture. While the efficiency of Bretton Woods is open to debate, its overall positive impact in advancing market economies, funding reconstruction, and guiding structural reforms around the world is beyond doubt. Equally clear is the fact that the United States has been playing a leading role in the governance of Bretton Woods and in underwriting its success. The post–World War II American business community has been a major beneficiary of the expansion of global markets and the rise in purchasing power around the world. Consequently, in the daily competitive struggle, our businesses should never lose sight of the complex machinery of global market support that undergirds economic growth and of which, for 75 years, the Bretton Woods institutions have been an indispensable part. Current economic and political trends raise the question, however, of how to achieve better synergies between the public and private sectors at both global and local levels.

COMMON GROUND BETWEEN BUSINESS AND THE BRETTON WOODS INSTITUTIONS

International business predates multilateral institutions by centuries and therefore does not regard them as indispensable. Each generation of entrepreneurs legitimately gauges likely returns on political and financial capital invested in the global bodies, and questions their value accordingly. To find common ground, international institutions and business should better understand each other's capacities and constraints and find new ways of serving global economic growth and sustainable development.

The World Bank, the International Monetary Fund (IMF), and the global trade body known initially as the General Agreement on Tariffs and Trade (succeeded by the World Trade Organization, or WTO) emerged as part of the major powers' response to the challenges of postwar reconstruction as well as the Cold War. A little later, this system sprang into action to support postcolonial nation building, with arguably mixed results. In the late 1980s, the much larger and less coherent Bretton Woods system ushered postsocialist states into the market. In each instance, the Bretton Woods programs increased the share of the private sector in the economies they touched. American companies have done especially well where markets followed IMF prescriptions for macroeconomic management, the World Bank Group provided long-term financing and guidance for structural reform, and the WTO set clear and reliable rules for international commerce.

Yet when the most recent financial crisis broke out at the heart of the advanced economies, all major governments, starting with that of the United States, resorted to national institutions and elevated the G20 to the position of economic policy coordinator among them. The IMF, the World Bank, and the WTO each helped moderate the impact of the recession. However, at least from the vantage point of the private sector, the Bretton Woods system looked ill equipped to provide a coherent response to the new challenges, let alone prevent the next crisis. Confidence in Bretton Woods ebbed. Over the coming few years, international financial institutions (IFIs) and the WTO need to rebuild their credibility through reform and a better communication strategy. A successful reform will be possible only if the main shareholders, starting with the United States and other G20 members, recover their commitment to multilateralism. As the unfolding Brexit demonstrates, no one's membership in the Bretton Woods system should be taken for granted.

THE ROLE OF THE PRIVATE SECTOR IN STABILITY

For business in developed and developing countries to continue to provide vital support for the Bretton Woods agenda, the complex international construct needs to demonstrate its agility.

Absent a robust dialogue with the private sector, the IMF may find that its prescriptions increasingly suffer from unintended consequences, the World Bank will discover that its loans are buying yesterday's solutions, and the WTO will be undermined by bilateral deals that get more support than multilateral negotiations.

Dialogue with business will not come naturally to the venerable institutions. Whereas the international bodies are the guardians of economic stability and promoters of steady development, today the most successful companies are frequently disruptors of the markets. The demand for stability itself is evolving because instability is coming from new sources, including members of the Organisation for Economic Co-operation and Development. To the familiar economic meltdowns, natural disasters, and post-conflict reconstructions, one has to add such relatively new factors as the scale of the global financial markets, the speed of economic swings, the concentration of wealth, and demographic and labor fragilities. The technological and digital disruption already challenges most metrics and economic models. The rise of new forms of finance, from crowdfunding to initial public offerings using digital tokens, is a business reality that IFIs are only beginning to grapple with. All of these changes demand a continuous reassessment of the Bretton Woods tool kit.

Another threat to the stability mandate of Bretton Woods is the erosion of the political consensus about development models, which manifests itself in the rise of competing multilateral sources of development finance that sit outside the Bretton Woods architecture altogether. So far, the new development banks and funds are happy to model themselves after the Bretton Woods stalwarts and hire economists and managers from the same talent pools. However, they clearly do not share the same roots and frameworks for policy prescriptions, nor the same risk management approaches. That is not surprising. Even such sister organizations as the Asian Development Bank and the European Bank for Reconstruction and Development have their own procedures, policies, and perspectives that add to the complexity of the multilateral architecture. One can argue that the rise of new multinational development banks, such as the Asian Infrastructure Investment Bank and the New Development Bank, adds resources for development and spurs healthy competition with the Bretton Woods IFIs. On the other hand, it is also possible that we will see a fault line emerge between countries that are comfortable receiving support from the Bretton Woods institutions and those that choose to resort exclusively to the new banks and adhere to a new set of rule books. Companies that seek to work with diverse parties will need to fight to keep everyone focused on shared goals and practical solutions. Extraordinary agility will be required from all stakeholders.

NEEDED REFORMS TO BOOST ENGAGEMENT WITH THE PRIVATE SECTOR

Emerging tensions in the system demand from Bretton Woods leaders a renewed commitment to moving beyond their proud record of stabilization and reconstruction. The overarching imperative for Bretton Woods is to reform itself now in order to reflect profound changes in the private sector, which is the ultimate creator of the wealth of nations.

World Trade Organization

The outline for reforming the WTO has long been clear, including stronger measures to enforce commitments and faster procedures of dispute adjudication. Bilateral and regional trade agreements are sitting awkwardly on top of the WTO foundation, which is why everyone has a stake in making this foundation stronger. The "bicycle" paradigm, that the WTO has to be constantly in motion to avoid a fall, does not work anymore. Trade rules need a major tune-up in order to respond to new technologies. At the same time, they ought to provide more predictability, rather than produce constant haggling across almost 200 jurisdictions. If WTO members address these structural issues, the organization will again be capable of handling new forms of commerce, and preventing and resolving disputes.

International Monetary Fund

The IMF may find it more difficult to secure business support and, by extension, the support of governments that put a premium on the interests of the private sector. To quote one of its recent board members, the IMF is "an organization at the heart of America's vision of an open global economy founded upon multilateral cooperation."[1] Following recent economic shocks and political upsets, the IMF has to prove again to its major shareholders the value of institutionalized cooperation. The IMF speaks the language of the bond markets and public finance. Outside the traditional financial sector, its interaction with Main Street firms has to be strengthened in quiet times as well as in the middle of economic crises. Its loan conditionalities are occasionally opaque or appear to be based on debatable assumptions. Private-sector confidence in the IMF's capacity has to be restored. Companies know that the Fund's rescue packages come with severe constraints on public spending and private purchasing power until recovery is safely in hand. The loss of the market to domestic and international business is immediate, while the promise of recovery hangs

1 Mark Sobel, "The United States and IMF Resources—A Path Forward?," Center for Strategic and International Studies, July 12, 2018, https://www.csis.org/analysis/united-states-and-imf-resources-path-forward-0.

on continuing confidence in the IMF's prescriptions and local execution.

The global financial safety net provided by the IMF would be more credible if the private sector were more systematically engaged in discussing investment prospects, tax implications, trade, and labor rules. The IMF should also consider how it can better add to the transparency and integrity of markets through its various products and in specific lending programs. Business outreach to the IMF can take the form of much more substantive regular sessions based on perceived needs. Exchanges of views might be more frequent during crisis periods, when both economic and business conditions are changing rapidly. It is noteworthy that in the moment of the financial crisis and during its aftermath, the G20 found it useful to build interactions with business despite being hampered by the rotation of its chair.

As an essential contributor to G20 deliberations, the IMF can also benefit from dialogue with economic actors. If the Main Street private sector feels that the IMF is responsive to its input, executives and experts from both donor countries and distressed economies will respond more eagerly to the IMF's inquiries, particularly when the Fund enters a new market or policy space. Corporate perspectives would enrich the "business environment" section in country reports and reduce the risk of groupthink among the IMF's economists. Business can also share with the IMF real-time, sector-specific data that will supplement official statistics and help the Fund sharpen its understanding of the economies it tries to stabilize. Examples of useful data include advance orders for automobiles and other major consumer products, express delivery bookings, and paid app downloads. To avoid any appearance of conflicts of interest, appropriate safeguards must apply.

World Bank

Out of the three Bretton Woods bodies, the World Bank Group works the most with the private sector and faces the toughest challenges in keeping up with it. The Bank is constantly looking to build a pipeline of "viable projects attractive to private sector investors," which suggests that the private sector is not clamoring to work with the Bank.[2] Entrepreneurs have other issues on their mind than finding ways to fit their business plans into the World Bank's agendas. Ten years after a major global recession, business executives are looking ahead to make sure they will not be caught flat-footed again. They are absorbing an avalanche of data and analysis to spot the trends and anticipate the new challenges. They also continue to grapple with the still unresolved issues from a decade of drastic public involvement in shoring up private markets. The competition for who gets to the best

2 "From Billions to Trillions: MDB Contributions to Financing for Development" (World Bank, Washington, DC, July 2015), 5.

natural, human, and financial resources first, and uses them up the fastest and most fully, is intensifying. At the same time, society expects companies to abide by ever tougher requirements while also better explaining their strategies, governance, and social and environmental footprints.

Facing all these pressures, business finds it difficult to follow the World Bank's lead. It cannot easily operate on the Bank's timeline and abide by all the requirements imposed by the Bank and its borrowers. Returns on Bank-involved projects are rarely much better than on those without the Bank's engagement. The political derisking of projects is less attractive when higher returns can be achieved in less volatile economies. Furthermore, the Bank's project pipeline also turns out to be vulnerable to geopolitical risks, electoral politics, and pressure groups in advanced economies as well as in the borrowing states. What the Bank offers in risk management it takes away in efficiency and vulnerability to politics. The World Bank Group's claim that it "creates and expands markets"[3] where private capital is reluctant to do so does not comport with the business world's views of how market forces take root.

Unlike governments, entrepreneurs everywhere are an impatient bunch who will not wait for the World Bank's most thorough country diagnostics paper and most polished mission report. The Bank needs to bring companies to the table from the stage of identifying borrowing needs and find tools to keep them engaged. Since the World Bank needs to lend in order to function properly, it must develop the most sophisticated and efficient way of working with the global and local companies that are the true stakeholders in its mission of poverty reduction. The Bank's recent public procurement reform was a good example of the benefits of listening to businesses from both creditor and borrower nations. It also boosted confidence in the integrity of the Bank's project pipeline. That is a great value in itself that should not be squandered.

In addition to ensuring the integrity and transparency of its own project pipeline, the World Bank can set high global benchmarks and use its own experienced corps of experts to drive efficiency, probity, and quality in the most difficult markets. The Bank's role as the custodian of many focused and potentially nimble trust funds can also set an example of highly competent execution on a specific agenda. In this capacity, too, the Bank would benefit from a more vigorous exchange with the private sector at earlier stages of trust fund operations. In its self-proclaimed vision to become a "bigger and better" organization, the World Bank Group recognizes that "the private sector is … the only mechanism able to productively and sustainably create the millions of

3 Development Committee, "Forward Look: A Vision for the World Bank Group in 2030" (DC2016-0008, World Bank, Washington, DC, September 2016), 5.

monthly new jobs that the growing working-age populations demand" and points to a "US$100 trillion global pool of savings" to invest.[4] Surely the scale of both challenges and opportunities represented by this number would justify rethinking how to engage with the private sector.

CONCLUSION

In the interconnected world, experienced public institutions that span the world and integrate insights with extraordinary resources can have an outsized positive impact if they manage to resist isolation and rigidity. In the next few years, the Bretton Woods leaders will need to demonstrate a much higher level of commitment to using new economic models and engaging with the new generation of business executives. The WTO has to prove its value amid new patterns of trade, new centers of production and consumption, emerging frictions, and analytical gaps. The IMF has to continue reassessing its own prescriptions and procedures to include input from nonfinancial sectors. And the World Bank has to play to its strength as the most patient and socially sophisticated lender on the planet. It has to resist the temptation of being all things to all people. It has to remember that it is first and foremost a bank and, accordingly, apply its substantial resources only to problems whose answer is capital. The time to shore up the Bretton Woods architecture with new thinking and stronger business support is now.

4 Development Committee, "Sustainable Financing for Sustainable Development: World Bank Group Capital Package Proposal" (DC2018-0002/P, World Bank, Washington, DC, April 2018), 6.

TRANS-SOVEREIGN NETWORKS

China's Role in the New Global Order

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The world is increasingly characterized by networks: technologies, firms, banks, global supply chains, even the English language. It is impossible to understand the workings of the modern-day economy without grappling with the intricacies of how shocks propagate through networks, how firms conduct business via networks, how infrastructure connects countries into networks, and how productivity gains are accrued from networks. The world as a whole also works as a network. Whether it is the Red Cross, an agreement to tackle global climate change, or international financial systems and global supply chains, these efforts are of a transnational nature. Even looming challenges such as technology displacing jobs or AI outsmarting humans are issues not between states but across them.

Competition and substitution, emphasized in traditional economic thinking, are gradually giving way to notions of complementarity, connectivity, and cooperation. With greater interdependence comes the need for a rethinking of the international politico-economic architecture that takes into account networks of a transnational nature. There is also a series of questions to ponder: Will networks supersede sovereign relations? Will they render the concept of hegemons obsolete, or at least less relevant? Will networks of the transnational sort need fostering, or will they just emerge without design? If they do need shepherding, who will play that leadership role?

This century and the subsequent ones are likely to be centuries of expanding networks, but the current era is also

one in which China will rise and assert itself as a global leader. What will be the defining characteristics of its leadership? This will likely be a key question of our time. Seventy-five years ago, China was one of the 44 Allied nations to have participated in the founding of the Bretton Woods system. Ever since, it has transformed itself from an economic backwater to one of the most connected components in the global economy. China has experienced seismic changes, in the same way that the global economy has radically transformed itself by weaving a web of interconnected, interrelated components. But what hasn't changed at a similar pace is the design and thinking on international economic and financial architecture.

The main argument of this essay is that in a world of global economic networks, new economic relationships and linkages warrant a new type of economic leadership, one that supplants traditional notions of power and hegemony. China, by living through its own experience of building networks that succeeded in *jump-starting* development, is poised to become a global network leader. In that role, the most central and connected nation enables and propels the networks; it does not seek to dominate the system but instead strives to ensure the smooth functioning of the networks, as well as their safety and sustainability.

China, the second-largest economy today, doesn't easily fit into a category of historical and nascent superpowers. China has defied conventional wisdom on its path to prosperity; it has achieved economic growth not by sheer forces of the market but instead with significant state intervention. It is on its way to becoming the largest economy in the world, yet it is still a developing country, marked by backward financial development and ailed by a myriad of deep-seated economic distortions. It has cutting-edge technological capacity despite its low income levels. It's seen an income growth of more than 15 times since 1990, and this was all achieved without being a Western-style democracy and arguably even without a proper set of incentives-enabling institutions.

But there seems to be a "silver bullet" absent from the conventional set of explanations for China's success. Yes—factor accumulation has been important, and reforms that have removed distortions have so far led to efficiency gains. But China's ability to transform itself rapidly from an economic backwater to one of the world's most vibrant economies in a matter of three decades seems to hinge on something else. Forty years ago, China was a centrally planned economy, absent a properly functioning marketplace. The state set production targets and prices, with virtually all daily necessities and many other consumer goods rationed. But over a short period of time, the government was able to coordinate the various elements in the nation and set development in motion. The country leveraged its ability to accumulate resources and mobilize them—rapidly building infrastructure that connected its

various regions, people, and complementary inputs. It worked as a network, with firms and industries enabling other firms and other industries, and productivity gains were maximized as the networks were built and expanded.

The idea of building linkages to foster economic development goes back to Hirschman.[1] By building forward and backward linkages, development can be self-reinforcing, propelling a virtuous cycle. A straightforward example illustrates that this mechanism extends beyond simple scale economies: if, for example, the transportation sector is inadequate, then output in many other activities, including truck manufacturing and highway construction, will be hampered, in turn further reducing output in the transportation sector and in the rest of the economy. This vicious cycle engenders a *multiplicative* effect. The same goes for a virtuous cycle, in the opposite direction.

If intermediate goods are complementary in nature, then forging and strengthening these linkages is ever more important. For instance, textile producers require raw materials, machines, a trained workforce, technical expertise, security, business licenses, transportation networks, electricity, and so on. Problems with any input can substantially reduce the overall output. What China has managed to achieve is to build up the business and transportation networks that have connected these inputs fairly rapidly—further increasing the value of the inputs and, in turn, the incentive to produce them. Whereas it took the West a hundred years to create and link markets, China did it in a matter of two decades.

NETWORK EFFECTS ON A GLOBAL SCALE

The same idea of network effects and self-reinforcing linkages carries over to the global economy. There is substantial evidence, first, that inputs across countries have become complementary. For example, Japanese earthquakes in 2011 are shown to have caused substantial disruptions for parts of the US economy.[2] Moreover, switching costs in global supply chains tend to be high.[3] In the world of financial networks, interdependencies among governments, central banks, investment banks, and firms, through cross-border exposures in bonds, equities,

1 Albert Hirschman, *The Strategy of Economic Development* (New Haven, CT: Yale University Press, 1958).

2 Christoph Boehm, Aaron Flaaen, and Nitya Pandalai Nayar, "Input Linkages and the Transmission of Shocks: Firm-Level Evidence from the 2011 Tōhoku Earthquake" (Unpublished working paper, University of Michigan, Department of Economics, Ann Arbor, MI, 2014); Vasco M. Carvalho, Makoto Nirei, and Yukiko Saito, "Supply Chain Disruptions: Evidence from the Great East Japan Earthquake" (RIETI Discussion Paper Series No. 14035, Research Institute of Economy, Trade and Industry, Tokyo, 2014).

3 Jean-Noël Barrot and Julien Sauvagnat, "Input Specificity and the Propagation of Idiosyncratic Shocks in Production Networks," *Quarterly Journal of Economics* 131, no. 3 (2014): 1543–92.

housing, and capital flows, can lead to cascading defaults and failures.

Technology has precipitated more intense specializations around the world. Examples abound in which specific countries' resources and inputs can realize their full value only in a world with linkages: cheap labor in developing countries became an important asset when technology advanced and trade costs fell; oil from Middle Eastern countries was useless 150 years ago but is a critical input to the world's output today; rhodium and lithium are now valuable only because the world needs batteries to produce electric cars. The networks and linkages make country-specific inputs and products more valuable, which in turn makes the networks and linkages more valuable, and so on and so forth.

This cycle makes the importance of connectivity, both physical and digital, ever more crucial in this modern day and age. Ideas feature economies of scale. Physical infrastructure makes markets larger; digital infrastructure and technology makes ideas display greater economies of scale. And because ideas are now of more value than ever before, infrastructure serves an even greater purpose in connectivity. The connectivity makes the inputs more important, in turn heightening the benefits of connectivity. As crucial as these notions may seem, they are not described nor fully captured by simple measures of cross-border goods and financial flows, bilateral or multilateral arrangements—but that is where the current international economic policies and thinking lie.

Brexit is a major disruption in networks. The calculable cost is still unknown. And the UK's rupture with the EU is mainly regulatory rather than physical. The chaos we have already witnessed at the border points between the UK and France indicates that in the present-day world, the networking in terms of policy, regulation, and other nonphysical issues is no less crucial than the tangible and visible connectivity. Whether it is a hard Brexit, a soft Brexit, or a blind Brexit, Britain's tendon, deep under the skin, is snapped, and all of the unprepared-for consequences are all of a sudden apparent to the naked eye. Already, the English Channel looks like an artery clogged up by cholesterol. It is reported that trucks now back up for miles outside the tunnel's entrance and passengers have to wait to board Eurostar trains. Slow and longer processes in clearing trucks, cars, and passengers at ports, train stations, and the tunnel linking Britain with France and the rest of Europe is expected to be routine. Even though both the UK and France have substantially increased customs officers, security staff, and other employees, things will get worse yet after Brexit. Breaking connectivity and networking, physical or nonphysical, is no joke.

If linkages are crucial, will every nation do its part to build these linkages and internalize its own externalities on the network? Take again the example of infrastructure, which connects countries via roads, railways, power transmission lines, and gas pipelines. It may well be that China would like to

build connections of its hitherto isolated hinterlands to Europe. But if neighboring countries such as Kyrgyzstan or Tajikistan cannot build railways and highways that link them with their surrounding nations, then the transport linkages that China builds with this purpose in mind are of no substantive value. Similarly, Kenyan ports are modern and efficient, but in the absence of a railway link that connects Angola to the coastal areas, these ports fall short of achieving their potential, and Angola's precious resources remain beneath the earth.

The more connected the entire network is, the more valuable is each link. Only when the global network of infrastructure is constructed with relative completeness is its externality the greatest, are its productivity gains the largest, and does each segment of the infrastructure linkage reach its greatest value. In this sense, the actions of each sovereign nation have considerable externalities at a global level.

CHINA: AN ENABLER?

If governments do not fully internalize these externalities, efforts to build and maintain networks will be suboptimal. Moreover, when it comes to small countries, there is not only an issue of willingness but also one of capacity. After all, building links across nations is more difficult than building them within nations. Cross-border frictions and distortions abound—be they political, regulatory, informational, or due to unaligned incentives. In this instance, should there be a supranational actor, or a lead sovereign actor, that plays the role of coordinating nations and mitigating these frictions? If the traditional hegemon was a great power strong enough to force the other countries to follow the rules it had created, the new power of a network leader should be that of a connected and central participant that initiates, creates, and expands networks. The concept behind such a leader should be different from that of a hegemon, and so should its behavior.

But who will play this new role, and how much should each nation contribute? The question of burden sharing among states in the global provision of public goods is a time-dated controversy. It goes back to the classic problem of how much rich countries such as the United States should contribute to NATO spending. Olsen and Zeckhauser provided a theory as to why it makes sense for large, rich countries to shoulder a disproportionate amount of defense spending while allowing smaller and poorer allies to enjoy a free ride.[4] In 1980, the United States' contribution to NATO was around a 75 percent share (68 percent in 2016), larger than what is required for its relative GDP size and larger than the estimated relative

4 Mancur Olson Jr. and Richard Zeckhauser, "An Economic Theory of Alliances," *Review of Economics and Statistics* 48, no. 3 (1966): 266–79.

benefits it derives (around 35 percent).[5] The flip side of this argument is that by getting other countries to contribute to some of the defense spending, the United States can avoid paying for 100 percent of it.

Global networks and public goods share some similarities but are still distinct concepts and require different thinking on international cooperation. Building linkages to form a network is different from contributing to public goods. Efforts in the latter are often more substitutable, while those in the former are more complementary. If countries spend less on building military alliances or supporting international organizations, other countries can compensate by spending more. But in the case of many networks, reduced efforts in one country can substantially affect the entire network. In the extreme case, in which each country's inputs are "critical," then the failure of one nation's contributions to the network will lead to the collapse of the entire system. In this scenario, the network is only as strong as its weakest link.[6] When the space shuttle *Challenger* broke apart 73 seconds into its flight in 1986, it was the failure of a single inexpensive rubber seal (O-ring) that killed the entire crew.

China's Belt and Road Initiative, the grand plan to connect Asia, Africa, and Europe, aims to connect and build networks. In infrastructure networks, there are some "critical nodes"—occupied by countries in important geographic and strategic locations. But some of these countries may be too small and too poor to build cross-border infrastructure. Moreover, they may not be able to handle the range of risks that infrastructure entails—uncertainty associated with the long gestation period, regulatory changes, disruptions in financing, operational glitches, and the like. In this case, the active participation of a larger nation with capacity and scale, capable of mitigating or absorbing such risks, may be critical. But why is China the large nation incentivized to bear the brunt of the burden on this project? Arguably it can derive more private benefits from this particular network than can, say, other large economies. It occupies a more central position geographically, and it also relies more on trade with other countries and is more dependent on resources in Africa.

5 Todd Sandler and Keith Hartley, "Economic of Alliances: The Lessons for Collective Action," *Journal of Economic Literature* 39, no. 3 (2001): 869–96.

6 Michael Kremer, "The O-Ring Theory of Economic Development," *Quarterly Journal of Economics* 108, no. 4 (1993): 551–76; Charles I. Jones, "Intermediate Goods and Weak Links in the Theory of Economic Development," *American Economic Journal: Macroeconomics*, 3, no. 2 (2011): 1–28.

CHINA: A GLOBAL NETWORKER

In today's world, being at the center of a network and becoming its most connected component has some substantial privileges. The power derived from such positions in networks is nowhere better illustrated than in the historical example of the rise of the Medici family in 15th-century Florence. At the outset, the Medicis were not the wealthiest family, nor did they have the most political clout. The Strozzi family was more financially powerful and had more seats in the legislature. But by marriage, the Medici family was the most connected component of a network of intermarried families, economic relationships, and political patronages. Cosimo de' Medici consolidated political and economic power by leveraging the family's central position, allowing the Medicis to become the "godfathers of the Renaissance."

China is currently fashioning itself into a successful global networker. By participating in various areas of global effort—whether it is building truly international institutions with sound corporate governance, coordinating global infrastructure projects, or building relationships with developing and emerging economies—it is turning itself into the central and most connected component in them.[7] Perhaps no country understands the power of networks better than China. *Guanxi*, or "connections," has been a linchpin of socioeconomic and political life for centuries, and all the way up to the present day. The rise through the ranks of the political hierarchy relies on *guanxi*; conducting business and undertaking projects requires connections to the local party cadres; even finding the right doctor requires *guanxi*.

Even from a historical point of view, China has been a purveyor of networks. The ancient Silk Road, begun in the second century BC, aimed to connect Asia and Europe. It stretched about 7,000 kilometers from Chang'an, the ancient capital in China, to Athens and Constantinople. The lasting legacy of the Silk Road is as much about bridging cultures and people as about trade. Merchants learned the languages and customs of countries to which they traveled, and the knowledge helped with negotiation and commerce. The process of making paper was propagated worldwide via the Silk Road network, and the same is true of the printing press technology.

A LEADER IN THE AGE OF NETWORKS

The growing connectedness of the world is a key fact of our economic and political life, but if the field of vision is

7 According to the American Institute, some US$340 billion will be spent on infrastructure as part of the Belt and Road Initiative. In 2018, during the Beijing Summit of the Forum on China-Africa Cooperation, Chinese leaders pledged about US$60 billion in financial assistance to African nations, and the country's aid reached US$3 billion in 2018.

confined to the traditional economic lens, the world will still be viewed as a collection of discrete and separate entities. Developing intellectual frameworks that capture a global web in which elements are connected, overlapping, and enmeshed has become imperative. So have policy prescriptions that reflect such global realities. More work needs to be done on measuring the interconnectedness of nations, the structure of various networks, and the propagation of shocks across these networks.

The three major pillars for a global economy in the post–World War II era, namely, the International Monetary Fund, the World Bank, and the World Trade Organization, manifest the importance of networking. China has consistently been a vocal advocate for a multilateral approach to addressing formidable challenges facing the world. A change of representation at the Bretton Woods institutions in 1980 rendered it possible for China to participate in deliberation on global macroeconomic situations, macroeconomic surveillance of individual members, broad policy coordination, and development interventions, among other issues discussed in the multilateral institutions. Being a beneficiary of the international financial order established in 1945, China has reiterated that it has no intention whatsoever of upsetting the international order that has served the post–World War II world well, albeit with room for improvement. Bretton Woods institutions and all institutions that follow suit work well as network builders, in terms of policy coordination and cooperation in addressing debt problems and financial crises, as well as cofinancing for physical infrastructure projects.

Forums such as Asia-Pacific Economic Cooperation (APEC) and the G20 have been playing a big role in international cooperation. China sets great store by getting involved in these multilateral networks in a proactive way. Some China watchers in the West seem to be concerned, even with a bit of trepidation, over China's potentially dominant role in multilateral institutions and forums. It seems that China knows its limitation and has no superpower pretensions in the American way. Nevertheless, the country will try to play a bigger role in global affairs. Whether China is an existential threat to other nations or a constructive player in the international networking scheme will be determined by its actions. Perhaps the country should have the ambition to shoulder greater responsibility and learn to be a global leader. Cicero said, "You do not have to convince me. Your authority convinces." China's potential ability to claim such authority depends on what it does and will do, step by step, over years, and maybe decades, by right intention and right execution.

A resilient network can't be hegemonic in the conventional sense. It needs governance to reflect multipolarity. It also needs to permit others to mobilize. China needs not only to play a greater role but also to encourage other members of the international community to do the same, if the established

leading nations decide to pull out and abdicate their crucial responsibilities on the global stage. In this sense, China's great destiny is not only to become the largest economy—and a rich one to boot—but also to recognize the duties and rewards inherent in designing such an architecture that enables others to flourish as it has flourished, that permits greater integration as it has integrated, and where one country's success begets another's.

RESHAPING MULTILATERALISM AS A TOOL FOR GLOBAL ECONOMIC PROSPERITY

JOSÉ ÁNGEL GURRÍA

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The Organisation for Economic Co-operation and Development (OECD) and the Bretton Woods institutions share a common history. We emerged from the ashes of World War II to repair the economic, political, and social devastation caused by the most destructive global conflict in modern history. Until 1961, the OECD was known as the Organisation for European Economic Co-operation (OEEC) and was focused on implementing the Marshall Plan to reconstruct Europe.

From the outset, international cooperation has been the backbone of our respective work—to overcome political differences, to foster long-term geopolitical stability, and to secure sustained growth and development. At the OECD, international cooperation has helped to establish ground rules, standards, benchmarks, and peer learning to level the playing field and help policymakers deliver better policies for better lives.

Over the decades, our institutions have grown and evolved. The OECD has become a "do tank," helping governments compare experiences and seek answers to common problems, as well as coordinate and implement policies—informed by our multidisciplinary expertise, data, and tools, and our rational, rigorous, and evidence-based policy analysis. We have also become one of the most important sources of advice on structural reforms, focusing on their design and implementation for inclusive and sustainable growth. Across the OECD, including in our substantive and specialized committees, working groups, and expert groups, we strive for consensus-based solutions.

Cooperation remains a central pillar of the OECD's work, framed around an adherence to market economy principles and the pursuit of openness—free trade in goods, services, and capital, and strong and fair international competition. We count the World Bank and the International Monetary Fund among our closest allies and key collaborators. Together, we strive for joint values: openness, inclusiveness, sustainability, peace, and prosperity. Our collective results are a testament to the efficacy, impact, and value of multilateralism.

But today, multilateralism is at a crossroads. Many people have grown frustrated and angry about uneven opportunities and outcomes, high unemployment, and job insecurity. They are concerned about global pressures including rapid digitalization, migration, and climate change. Some observers are questioning the ability of multilateralism to deliver timely and effective responses to these challenges. Is a system established more than 70 years ago still fit for purpose? The shifting wealth of nations, the speed of technology and digitalization, the intensification of global flows (people, goods and services, money, data, ideas) are quickly reshaping our world, with unpredictable consequences. Do we have the tools of multilateral cooperation needed to confront these challenges?

THE OECD: A STAUNCH DEFENDER OF MULTILATERALISM AND INTERNATIONAL COOPERATION

The OECD has been engaged in a longstanding reflection on these issues, prompted by the greatest economic crisis of our lifetimes. We've been asking ourselves hard questions about what went wrong, why we missed the signals, how our thinking contributed to creating the conditions for the crisis to happen, and how we can cooperate better with others to avoid repeating these issues. To increase our relevance, we've revised and modernized our economic analysis and advice. And we have engaged in a radical rethinking of our work, our economic models, and our assumptions.

In 2012, we launched the New Approaches to Economic Challenges (NAEC) initiative to reflect on the lessons from the crisis, challenge our assumptions, identify the shortcomings of our analytical models, and develop new policy tools and data. The only way to be relevant is to adapt constantly to a fast-changing world and improve our knowledge and skills. That was what we started doing with NAEC.

Today, NAEC is transforming our ways of seeing and acting about the economy, the environment, and society as a whole system. We are looking at the world through a multidisciplinary lens, which is helping us identify and understand

interconnected policy linkages. We are doing better at using smart data and behavioral insights. We are also progressing in our understanding of complexity and systems thinking. NAEC is filtering into our policy analysis and advice, becoming a "state of mind" across the OECD. We are building on the core lessons of NAEC to develop a new economic narrative that delivers new stories of growth and inclusion, a new social contract, and a new idealism. In 2018, we established an NAEC Innovation Lab to foster whole-of-organization collaboration and exchange, and facilitate experimentation with agent-based modeling, machine learning, big data, and behavioral economics across policy areas.

At the same time, we have embarked on a transformation to refocus the organization to make our work more inclusive and more sensitive to the needs of the bottom 60 to 70 percent. We have given priority to one supreme target: human well-being. We've confronted and challenged some of the central assumptions and theories of traditional economics: we started a new reflection on the limitations of GDP as an indicator of economic progress; we explained how the benefits of growth were not trickling down; we measured the increase in inequalities in our member countries and produced evidence to show that they were hurting growth; we launched an Inclusive Growth Initiative and introduced new analysis on the nexus between productivity and inclusiveness; and we proposed actions to help countries promote green growth and significantly cut emissions. More recently, we established a Framework for Policy Action on Inclusive Growth, comprising 24 indicators to help governments sustain and more equitably share the gains of economic growth by investing in people and places that have been left behind, supporting business dynamism and inclusive labor markets, and building efficient and responsive governments.

We have also taken great strides to become more global, including stepping up our work to address major global challenges and develop global solutions. This work has delivered! Our work on taxes (the Inclusive Framework on Base Erosion and Profit Shifting, or BEPS), Automatic Exchange of Information (AEOI), education (the Programme for International Student Assessment, or PISA), anti-corruption (the Anti-bribery Convention), responsible business conduct, export subsidies, and steel excess capacity, among other topics, has been transformational and innovative, bringing real improvements to people's lives and leveling the playing field for companies. We are actively engaged in the implementation of landmark global agreements, including the 2030 Agenda for Sustainable Development, the Addis Ababa Action Agenda, and the Paris Agreement.

In this global spirit, we have also taken important steps to increase our own global reach. We started new accession

processes and welcomed six new members: Chile, Estonia, Israel, and Slovenia in 2010, Latvia in 2016, and Lithuania in 2018, with Colombia also due to join us later this year. Many other countries—including Argentina, Brazil, Bulgaria, Croatia, Peru, and Romania—have formally applied for membership. We have also launched an Enhanced Engagement Initiative to strengthen our cooperation with our five key partners among emerging economies (Brazil, China, India, Indonesia, and South Africa) and help them come closer to OECD standards. In addition, we have consolidated our regional programs—covering Eurasia, Latin America and the Caribbean, the Middle East and North Africa, and Southeast Asia—and expanded our country programs to enhance our understanding of shared challenges and ensure that our work and advice are tailored to diverse contexts.

Finally, we have strengthened the OECD's presence in the global governance architecture through more active participation in the G20, the G7, Asia-Pacific Economic Cooperation (APEC), the Pacific Alliance, and the Ibero-American Summits. This outreach has allowed us to globalize our standards in areas such as taxes, investment, anticorruption and integrity, small and medium enterprise financing, state-owned enterprises, responsible business conduct, consumer policies, the digital economy, and development finance.

RESHAPING MULTILATERALISM AS A TOOL FOR GLOBAL ECONOMIC PROSPERITY

All of this activity has helped to strengthen multilateralism. Multilateralism is the only way forward if we are to address today's multifaceted challenges adequately. But for multilateralism to succeed—for international organizations, including the OECD and the Bretton Woods institutions, to succeed—we need a multilateralism that is more responsible, more effective, more inclusive; we need a multilateralism that delivers tangible benefits for people; we need a multilateralism that is calibrated to the challenges of the 21st century.

In June 2018, the OECD's annual Ministerial Council Meeting (MCM) brought together members and partner countries to discuss the theme "Reshaping the Foundations of Multilateralism for More Responsible, Effective, and Inclusive Outcomes." The MCM was conducted with France as chair, and Latvia and New Zealand as vice chairs. It was opened by President Macron, with the leaders of Colombia and Lithuania—our new members—in attendance. It took a deep dive into multilateralism across four dimensions—economic, financial, social, and environmental—and focused specifically on current challenges, such as addressing the digital transformation, strengthening international taxation, promoting inclusive growth, financing the Sustainable Development Goals, and facilitating

international trade and investment, and how the OECD can continue to support Members and partners in addressing these challenges. The OECD's 2018 MCM allowed an open and frank discussion that captured the objective and spirit of the Bretton Woods@75 Compendium: to recalibrate multilateralism as a fundamental force for global peace and prosperity.

Our 2018 MCM was a call to action for all international organizations, including the OECD and the Bretton Woods institutions. We need to work better together to reduce overlap, harness synergies, and ensure consistency between our respective programs of work. In this context, I would like to share the MCM's key conclusions:

- ***First, we must deliver an open and level playing field and well-governed markets that put healthy competition, integrity, and responsible business conduct at their heart.*** The OECD is leading these efforts with multilateral tools such as the Anti-bribery Convention, the Due Diligence Guidance for Responsible Business Conduct, and the OECD/G20 Principles on Corporate Governance. These tools are critical to restoring citizens' trust in the fairness and transparency of government and institutions, including at the multilateral level.

- ***Second, we need to be particularly vigilant in emerging sectors such as digital technologies.*** New technologies, such as fintech, blockchain, and artificial intelligence, are emerging, with important potential to support growth and well-being. However, these are uncharted waters. These technologies can also generate disruptions and challenges in trade, employment, regulation, security, safety, privacy, and consumer protection, among other areas. We need to open new multilateral channels to address these challenges together.

- ***Third, we must also do more to tackle market-distorting practices and subsidies.*** Overcapacity is an area in which multilateral cooperation is the only way forward, as demonstrated by the OECD Global Forum on Steel Excess Capacity. Now we need to make progress in sectors such as aluminum, high technology, and others.

- ***Fourth, we need to maintain the impressive momentum of the OECD's BEPS project and the global standard on AEOI by looking in depth at the challenges of taxing the rapidly changing digital economy.*** We also need to tackle the "dark side" of global flows, from bribery and corruption to cyber insecurity, counterfeiting, piracy, and human trafficking. All of our countries and citizens stand to gain from a robust and collective response.

- ***Fifth, we have to strengthen our efforts to promote inclusive growth.*** Doing so requires more effective social safety nets, better education and skills, quality affordable health care and housing, and sustainable infrastructure. New approaches found in the OECD PISA Global Competence

Framework, the Jobs Strategy, and the OECD's new Framework for Policy Action on Inclusive Growth are equipping citizens for today and tomorrow. Alongside these efforts, reducing the intergenerational transmission of disadvantage by focusing on children's well-being, piloting measures to facilitate migrant and refugee integration more effectively, and redoubling our efforts to tackle entrenched gender gaps and advance women's empowerment are ongoing priorities. The importance of bridging spatial inequalities—between leading and lagging regions, and urban and rural areas—should also not be underestimated.

- ***Finally, we must green multilateralism.*** The OECD's report Investing in Climate, Investing in Growth[1] shows that climate-compatible policy packages can be engines of inclusive, sustainable growth at a time when we are still not on course to reduce global warming to well below 2°C. We need to step up our joint efforts to promote green budgeting and green investment, measure climate finance, protect biodiversity, and tackle new environmental emergencies, such as the proliferation of plastic waste in our oceans. It is shocking that by the middle of the century, the ocean could have more plastic than fish by weight![2]

CONCLUSION: MULTILATERAL COOPERATION IS THE ONLY FUTURE!

Together, the OECD and the Bretton Woods institutions highlight the profound benefits of international cooperation. Our collective work is helping to build a better world. Cooperation is the only future. While we have achieved a lot, including the Paris Agreement, the 2030 Agenda for Sustainable Development, and the tax-related agenda, we continue to face complex global challenges. But we have both the duty and the opportunity to shape the kind of multilateral cooperation that such global challenges demand.

By its very nature, multilateralism is always a work in progress. In this spirit, the OECD looks forward to continuing our work with the Bretton Woods institutions to ensure that we design, develop, and deliver better policies for better lives to promote peace, well-being, and the protection and preservation of our planet.

1 Organisation for Economic Co-operation and Development, *Investing in Climate, Investing in Growth* (Paris: OECD Publishing, 2017), https://dx.doi.org/10.1787/9789264273528-en.

2 "Feature: UN's Mission to Keep Plastics out of Oceans and Marine Life," *UN News*, April 27, 2017, https://news.un.org/en/story/2017/04/556132-feature-uns-mission-keep-plastics-out-oceans-and-marine-life.

THE BRETTON WOODS REGIME IN A CHANGING WORLD ORDER

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BIRTH OF THE BRETTON WOODS REGIME

It was a big stroke of good luck for the world that we could promptly establish a new world order, dubbed the Bretton Woods regime, at the end of World War II. The historic exercise was made possible by the strong leadership of the United States. The United States had triumphed almost unscathed, and when the war was over, it was the singular hegemonic power. The United States excelled in the world in all national powers of the economy, the military, diplomacy, technology, culture, and ideology. Particularly important was the role of the US dollar as the global key currency. The United States guaranteed the dollar's convertibility into gold and championed the multilateral freedom of current account transactions. A new international institution, the International Monetary Fund (IMF), was created, and its members pledged to fix their respective currencies' exchange rates vis-à-vis the dollar and to liberalize their trade.

The IMF was assigned the role of guardian of the Bretton Woods monetary regime, which was built upon two pillars, the gold-dollar standard and the fixed exchange rate. The IMF conducted surveillance over members' economic and monetary policies, and provided recommendations. If necessary, the IMF provided short-term financial assistance to enable members to maintain exchange rate stability and free trade.

Another important element of the postwar US leadership was the doctrine of democracy, freedom, and human rights. After the defeat of Nazism in

Germany and militarism in Japan, there was a broadly shared view in the world that the American ideology itself may be the most palatable ethos for humanity. Americans, on their part, were convinced of the supremacy of their creed and preached for others to follow it.

All in all, the quarter century after World War II was the heyday of the Bretton Woods regime. Regardless of the undercurrent of the Cold War; regional conflicts such as the Korean War, the Vietnam War, and wars in the Middle East; and occasional currency turmoil, mainly in Europe, the world as a whole obviously enjoyed one of the most stable and prosperous eras in history. The American dollar, the American military, and American ideology supported the fortune of the world. The Bretton Woods regime was a synonym for Pax Americana.

COLLAPSE OF THE BRETTON WOODS REGIME

Good days could not last forever. The US balance of payments started to deteriorate. American households kept consuming too much, and American consumer goods manufacturers lost their competitiveness against peers in Asia and Europe. The US trade deficit mounted, and the United States became a net external borrower. Gold reserves were depleted. By the early 1970s, the convertibility between dollar and gold was suspended, and the fixed exchange rate between the dollar and other currencies was discarded. The Bretton Woods monetary regime collapsed.

It is interesting to recollect that when we saw the demise of the postwar monetary regime, many of us feared the collapse of the dollar's value and chaos in the world financial market. It did not happen, however. The dollar remained the key currency for international transactions and reserves. The world kept using the dollar just as it did before. The reason was not too difficult to find. Although the United States suffered a certain eclipse of its prominence, there is no doubt that it was still by far the most powerful country in the world. Furthermore, there was no country that dared to challenge American leadership. The Soviet Union was not friendly to the United States, but everybody knew it had no ability to replace the United States. Germany and Japan were rising, but they had no ambition to become global leaders. China was still nonexistent as a global power.

In other words, although the Bretton Woods monetary regime collapsed, in the real world, the system composed of the gold-dollar standard and the fixed exchange rate was replaced by the new system, composed of the dollar standard and the floating exchange rate. In hindsight, however, when the two pillars that supported the original Bretton Woods monetary regime crumbled, the IMF should have been overhauled.

The IMF was created as defender of the Bretton Woods monetary regime,

but by the 1970s the regime itself had collapsed. There was no longer an object to defend. The IMF had lost its mission. We should have devised a new role for the IMF. Indeed, various efforts were made to install some sort of new international monetary regime. Multilateral discussions took place on the premises of the IMF. However, international enthusiasm evaporated without any tangible result. The world realized, with a certain sense of relief, that without any formal regime, business could continue as usual under a de facto dollar standard and floating exchange rate. The IMF thrived as an international agency that provides financial support to troubled countries on an ad hoc basis.

EPOCHAL EVENTS AT THE END OF THE CENTURY

During the last quarter of the 20th century, after the collapse of the original Bretton Woods monetary regime, the world witnessed several episodes of great consequence in both the geopolitical and the socioeconomic arenas. Geopolitically, the Soviet Union disintegrated, and the West triumphed in the Cold War. Deng Xiaoping quashed a student demonstration in Tiananmen Square and launched the country's Reform and Opening Up policy. The United States intensified its intervention in the Middle East, a case of imperial overreach. European Union countries made significant strides toward a single market and currency unification.

In the socioeconomic world, revolutionary US-originated progress was made in two areas: information and communications technology (ICT) and financial services. The capacity of computers was multiplied at astronomical speed. All sorts of new terminals were invented. Billions of people around the world could now engage in interactive communication. Big data were assembled, and they enabled artificial intelligence to beat human wisdom. The free and open sharing of information among people had made it inevitable for corporations, societies, and governments to modify the style of their governance.

While the progress of ICT affected all areas of human activity, the strongest impact has been felt in the financial services. Historically, finance was a kind of public service to facilitate the real economic activities, such as production, consumption, investment, and trading. Thus, financial activity was not necessarily large compared with the size of other economic activities. During the last quarter of the 20th century, however, there was an enormous expansion of financial liquidity due to the increasing global trade imbalance and the universal implementation of easy monetary policy. Excessive accumulation of financial liquidity forced people to scramble for higher yield. This is where ICT married financial services. A new department of science, called *financial engineering*, was born. Using esoteric techniques, engineers came up with all sorts of new financial services and commodities, such as securitization,

derivatives, and the like. They claimed their inventions could produce higher yields while minimizing risk.

Financial services, which had previously played a modest role in public goods, became a huge and dominant industry, with financial assets today several times bigger than the total GDP of the world. Indeed, the financial service industry produces huge income and generates considerable employment. At the same time, however, it is difficult to refute that the world is now more contaminated by greed and recklessness.

In hindsight, these events, such as the West's triumph in the Cold War and the dominance of both ICT and finance, produced a short holiday from history. There was a broadly shared view that political democracy and a market economy were two norms that would eventually prevail throughout the world. The so-called Washington Consensus became a global standard.

There was, however, a downside to the euphoria. In a new society in which ICT and finance are major players, meritocracy and competitiveness become key words. They are the source of social dynamism. At the same time, they upset the traditional stable and conservative society by making a clear distinction between those who have succeeded and those who have failed. Widening inequality can easily become a social issue because the populace is much more vocal now, thanks to ICT.

THE 21ST CENTURY: UNRAVELING THE DILEMMA OF THE BRETTON WOODS REGIME

The Bretton Woods monetary regime was made both possible and successful by the stable world order of Pax Americana. When the formal regime collapsed in the early 1970s, the world pretended that there was still a regime because the United States was behaving as a hegemonic leader. However, the dilemma became conspicuous with the advent of the 21st century, prompted by two momentums, one generated in the United States and the other in China.

On the US side, Pax Americana has become costly and burdensome for many Americans. A persistent trade deficit is viewed as evidence of unfair practices by trading partners. America's share of the burden in multilateral engagements was made exorbitant because other countries enjoyed freeloading. Many Americans feel unhappy that they are neglected in a society dominated by smart and rich people. They are sick and tired of playing the venerable role of global leader. The United States, they feel, should be more egocentric, just like others. It should secure its interests through bilateral negotiation without wasting its goodwill on multilateral follies. In other words, there is an emerging sentiment in the United States itself that does not cherish the world order under Pax Americana.

Another momentum against Pax Americana is coming from China. In hindsight, China was on the verge of disintegration when Mao Zedong passed away, leaving debris from the disastrous failure of the Cultural Revolution behind him. Deng Xiaoping saved the country. With the hands of a genius, he launched the policy of reform and opening. He knew with certainty that the people of China had to live better. He knew that would be possible only through the work of a market mechanism. He welcomed foreign money and foreign technology, and combined them with Chinese labor. He did not mind discarding Communist ideology. He declared that it does not matter if a cat is black or white as long as it catches a mouse. However, the crux of his genius was the decision to maintain the Communist Party as the dictatorial ruler of the country. Under Deng's leadership China made phenomenal development, never before witnessed in the history of humanity, to become the second-biggest country in the world at the beginning of the 21st century. Deng was succeeded by Xi Jinping, who is more vocal and assertive. Xi boldly set aside Deng's shrewd strategy of "hide and bide" and announced his determination to restore China's historic glory and make it a global power. In other words, Xi declared that China does not acquiesce to America's singular hegemonic role in the world. He made China the first open challenger to Pax Americana.

THE FUTURE OF THE BRETTON WOODS REGIME

The legitimacy and viability of the Bretton Woods regime were insured by the stable world order of Pax Americana. If we are going to lose a sound world order, then we will have to live through intermittent moments of instability. We may be able to survive only if we can manage to devise policy collaboration among major countries by way of mutual concession. In fact, during the 1970s and 1980s, when we had many contentious issues in the area of international finance—including exchange rate, balance of payments, capital flows, macroeconomic policies, and so on—we tried policy collaboration at such forums as the G5 and G7. Sometimes we succeeded, sometimes we failed. What we learned from this experience was rather straightforward. We could succeed only when there was common recognition about what the global benefit was, and we could succeed only when everybody felt that burdens and merits were being fairly shared. Only with such a common recognition could we convince ourselves that we needed to initiate a common effort to secure the desired benefit.

It should be broadly recognized that Bretton Woods institutions such as the IMF are useful public infrastructure that can play a valuable role in accomplishing substantive policy collaboration in a multipolar world. For that purpose, the IMF needs major restructuring:

- First, the voting structure should be overhauled. Members' voting share should be allocated based upon the objective size of their respective economies.
- Second, there should be no veto procedure. Decisions should be made by simple majority.
- Third, there should be an informal forum for consultation and negotiation, composed of five or six major-currency countries. The forum should be independent from the IMF but should establish close contact with the managing director of the IMF.
- Fourth, the IMF should be given a mandate to initiate discussion and negotiation among major-currency countries to restore stability in the global currency market.
- Fifth, within the IMF there should be a workable and effective dispute settlement mechanism. The IMF cannot force member countries to take action, but it can exercise strong moral pressure.

Having said that, we must sober ourselves up. In today's world, or in the foreseeable future, two superpowers, the United States and China, are openly competing to shape and run the world as each sees fit. There is no sign of hope that they will come to collaborate by accepting partial surrender of sovereignty. On the contrary, there is a looming sign of a historic clash of civilizations. Beyond that, the future is totally unknown.

THE ROLE OF THE BRETTON WOODS COMMITTEE

Against the background of the global situation described above, the prospective role of the Bretton Woods Committee cannot be easy. There are, however, a few steps I would propose. The Committee should expand its membership, particularly to a non-American constituency. It should also endeavor to establish and widen channels of communication with the leadership of major countries, particularly the United States and China. These efforts may not produce immediate results, but somebody must start with something, even if it is a raindrop in the ocean.

Some folks think that the problems of the world were made to be solved in a day or in one conference. That can't be. We must have cooperation, collaboration; utilize the machinery, the instrumentalities, that have been set up to provide succor to those who are hungry and ill; to set up, establish instrumentalities that will stabilize or tend toward stabilization of economies of our world.

—U.S. Delegate Fred Vinson
at the 1944 Bretton Woods Conference

Keynes (left) chats with Dr. H. H. Kung, China's Minister of Finance, in the dining room of the Mt. Washington Hotel on July 2, 1944.

Source: Bettmann/Getty Images

EVOLVING GLOBAL ECONOMIC AND FINANCIAL ARCHITECTURE

TRUE FINANCE

MARK CARNEY
Governor, Bank of England, and former Chair, Financial Stability Board

The 75th anniversary of the Bretton Woods Conference comes a decade after the global financial crisis, two decades after the Asian crisis, and three decades after the Latin American debt crisis.

Despite the past decade of financial reform—and despite the achievements of the International Monetary Fund (IMF) and World Bank since their inception—many are asking whether anything has really changed.

Such fatalism is at odds with reality.

The radical program of G20 reforms has made the global financial system safer, simpler, and fairer. These measures are creating a system that can serve households and businesses in bad times as well as good. These changes are helping fulfill the objectives of the Bretton Woods founders. They are creating a system that can deepen financial inclusion, better meet the needs of aging populations, and help fund the transition to a low-carbon economy.

But we will forfeit these gains if we fail to maintain the new institutional frameworks created since the global financial crisis. We know we cannot rest on our laurels. We must remain vigilant, resist the three lies of finance, and reinforce some core financial truths.

THE THREE LIES OF FINANCE

The *first lie* of finance is the four most expensive words in the English language: "This time is different."[1] This misconception is usually the product of an initial success, with early progress gradually building into a blind faith in a new era of effortless prosperity.

It took a revolution in macroeconomic policy to help win the battles against high and unstable inflation. But these innovations did not deliver lasting macroeconomic stability. Price stability was no guarantee of financial stability.

1 For an extensive survey, see Carmen M. Reinhart and Kenneth S. Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (Princeton, NJ: Princeton University Press, 2009).

An initially healthy focus would become a dangerous distraction. Against the serene backdrop of the so-called Great Moderation, a storm was brewing as total nonfinancial debt in the G7 rose by the size of its GDP.

Most importantly—and this is the lie—complacency among individuals and institutions, fed by a long period of macroeconomic stability and rising asset prices, made this remorseless borrowing seem sensible.[2] Captivated by the myth that finance can regulate and correct itself spontaneously, authorities retreated from their regulatory and supervisory responsibilities.[3] When the crisis broke, policy makers quickly dropped the received wisdoms of the Great Moderation and scrambled to relearn the lessons of the Great Depression.[4]

The *second lie*, the belief that "markets always clear," has two dangerous consequences.[5] First, if markets always clear, they can be assumed to be in equilibrium—or, said differently, to be "always right." If markets are efficient, then bubbles can neither be identified nor their potential causes addressed. Such thinking dominated the practical indifference to the housing and credit booms before the crisis.[6]

Second, if markets always clear, they should possess a natural stability. Evidence to the contrary must be the product of either distorted or incomplete markets. During the Great Moderation, this view became an organizing principle for financiers and policy makers.

But markets clear only in textbooks. In reality, people are irrational, economies are imperfect, and nature itself is unknowable. When markets don't clear, agents may be surprised to find what they own. When those surprises

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2 This emphasis on the endogenous tendency of financial systems to become unstable is reminiscent of Hyman Minsky's "financial instability hypothesis": Hyman P. Minsky, "The Financial Instability Hypothesis" (Working Paper No. 74, Jerome Levy Economics Institute of Bard College, Annandale-on-Hudson, NY, 1992).

3 For a review of this broader phenomenon, see Tommaso Padoa-Schioppa, "Markets and Government Before, During, and After the 2007–20XX Crisis" (The Per Jacobsson Lecture, Per Jacobsson Foundation, Basel, Switzerland, June 2010).

4 See, for example, Paul Krugman, *The Return of Depression Economics and the Crisis of 2008* (New York: Penguin, 1999, updated and reissued 2008).

5 See also Adair Turner, "Market Efficiency and Rationality: Why Financial Markets Are Different" (Lionel Robbins Memorial Lectures, London School of Economics and Political Science, London, October 2010).

6 Such naïveté is striking given that evidence of disequilibria abounds in markets for goods and labor. In goods markets, there is "sluggishness everywhere." Left to themselves, economies can go for sustained periods operating above or below potential, resulting, ultimately, in excessive or deficient inflation. Yet efficient market forces "should" bring about changes in prices sufficient to equate demand with potential, leaving inflation as a purely monetary phenomenon. In labor markets, there is "rigidity everywhere." Rather than fluidly adjusting to equate the demand for labor with its supply, periods of deficient labor demand can persist, sustaining mass unemployment and joblessness. Yet efficient market forces "should" eliminate these disequilibria by having wages adjust to ensure full employment always and forever. Monetary policy is not only a response to these rigidities; it is made effective by them.

are—*or are thought to be*—widespread, panic ensues. In the end, the belief that "markets are always right" led policy makers to neglect their proper roles in moderating those tendencies in pursuit of the collective good.

The *third lie*, that "markets are always moral," takes for granted the social capital that markets need in order to fulfill their promise.[7] The crisis showed that if left unattended, markets can be prone to excess and abuse. In financial markets, means and ends can be conflated too easily. Value can become abstract and relative. And the pull of the crowd can overwhelm the integrity of the individual. Repeated episodes of misconduct—such as the LIBOR and foreign exchange scandals—called into question the social license that markets need to innovate and grow.[8]

The crisis reminded us that real markets don't just happen; they depend on the quality of market infrastructure for their effectiveness, resilience, and fairness. Robust market infrastructure is a public good in constant danger of underprovision, not least because the best markets innovate continually. This risk can be overcome only if all market actors, public and private, recognize their responsibilities to the system as a whole.

TRUE FINANCE

This time is no different. Markets don't always clear. And we can suffer from their amorality.

What to do with such knowledge? And how to retain it?

To resist the siren calls of the three lies of finance, policy makers and market participants must bind themselves to the mast. That means building institutional frameworks that make it easier to resist the lies as they regain their seductive power. If we can, we will build True Finance, an enduring platform for strong, sustainable, and balanced growth.

Let me begin with the global reforms that have addressed the third lie: "Markets are moral." In the cycle of scandal, response, integrity, drift, and new scandal, potential solutions have oscillated between the extremes of light-touch regulation and total regulation. There are problems with each. By undervaluing the importance of hard and soft infrastructure to the functioning of real markets, light-touch regulation led directly to the financial crisis.[9] Market standards were poorly understood, were often ignored, and always lacked teeth. Yet a system reliant on total regulation and large ex post sanctions is similarly bound to fail because

7 Mark Carney, "Inclusive Capitalism: Creating a Sense of the Systemic" (Speech given at Conference on Inclusive Capitalism, London, May 2014).

8 The scale of misconduct impaired banks' ability to function fairly and effectively. Global banks' misconduct costs have exceeded US$320 billion, capital that could otherwise have supported around US$5 trillion of lending to households and businesses. More worrying still, in a system in which trust is fundamental, it ought to be of grave concern that only 20 percent of UK citizens now think that banks are well run, compared with 90 percent in the 1980s.

9 *Hard infrastructure* refers to the way in which markets are organized. *Soft infrastructure* refers to the standards and norms, including regulation, market standards, and codes, by which markets operate.

it promotes a culture of complying with the letter of the law, not its spirit, and because authorities will inevitably lag developments in fast-changing markets.

A more comprehensive and lasting solution combines public regulation with private standards and then buttresses both with incentives to increase materially the understanding and accountability of individuals. In the UK, new laws and regulations are doing just that.[10] Compensation rules now align risk and reward, with a significant proportion of variable compensation deferred for up to seven years across the banking industry. Regulatory references mean that the histories of those with a record of misconduct will be known to anyone considering hiring them.[11]

Authorities have also used their convening powers to encourage market participants to develop standards of market practice, such as the new global foreign exchange code and the new standards for fixed income, currencies, and commodities (FICC) markets from the FICC Markets Standards Board.[12]

The UK Senior Managers Regime (SMR) gives teeth to voluntary codes by incentivizing firms to embed them and by reestablishing the link between seniority and accountability.[13] Under the SMR, the most senior decision makers of banks, insurers, and major investment firms can now be held individually accountable if they fail to take reasonable steps (including training or proper oversight) to prevent regulatory breaches in their areas of responsibility.

The Financial Stability Board (FSB) has identified a similar menu of tools for its members under its Misconduct Action Plan. Thus far, however, action to promote good conduct has varied widely across the G20.[14] The FSB's compensation standards have been written into G20 regulatory rules but not yet fully deployed.[15] Although adjusting in-year pay is common, clawing back bonuses later on is not, even though it typically takes several years for evidence of misconduct to emerge. And few jurisdictions have put in place either formal mechanisms to ensure that boards and senior managers are explicitly responsible and

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10 "Fair and Effective Markets Review—Final Report" (HM Treasury, Bank of England, and Financial Conduct Authority, London, June 2015).

11 Bank of England Prudential Regulation Authority, "Strengthening Individual Accountability in Banking" (Supervisory Statement SS28/15, Bank of England, London, May 2017).

12 See Global Foreign Exchange Committee, "FX Global Code" (Global Foreign Exchange Committee, n.p., 2018); and Mark Carney, "Turning Back the Tide" (Speech at FICC Markets Standards Board, London, 2017).

13 Terry Allen, "Strengthening the Link between Seniority and Accountability: The Senior Managers and Certification Regime," *Bank of England Quarterly Bulletin,* Q3 (2018).

14 FSB, "Strengthening Governance Frameworks to Mitigate Misconduct Risk: A Toolkit for Firms and Supervisors" (Financial Stability Board, Basel, Switzerland, April 2018).

15 FSB, "Implementing the FSB Principles for Sound Compensation Practices and Their Implementation Standards: Fifth Progress Report" (Financial Stability Board, Basel, Switzerland, 2017).

accountable for what happens at their regulated firms, or regulatory references to stop those with poor conduct records from moving from firm to firm.

Absent a more comprehensive response, it is hard to see how we will prevent the ethical drift that periodically undermines market integrity and impairs finance's ability to function effectively.[16] And most fundamentally, without greater individual responsibility, it is hard to see how social capital can be fully regained.

The recognition that *markets don't always clear* has spurred major reforms to make markets less complex and more robust. A decade ago, over-the-counter (OTC) derivative trades were largely unregulated, unreported, and bilaterally settled. When Lehman Brothers fell, uncertainty about such exposures sparked panic.

Since then, the FSB has designed a series of reforms to make these markets safer and more transparent by such means as requiring trade reporting and encouraging central clearing of OTC trades. These reforms are having their desired effects. Supervisory authorities and market participants can now readily monitor activity and exposures. Ninety percent of new OTC single-currency interest rate derivatives are now centrally cleared in the United States. And an additional US$1 trillion of collateral is now held globally against all derivative trades.

Central counterparties (CCPs) reduce systemic risk, provided they meet the highest standards of resilience, recoverability, and resolvability. That is why G20 reforms have significantly increased the standards to which CCPs are held, ranging from higher margins and liquidity to better operational and cyber resilience.[17] To finalize its policy work, the FSB reported to G20 leaders on the need for guidance on CCP financial resources for resolution.[18]

A decade on from the financial crisis, a series of measures are eliminating the fragile forms of shadow banking while reinforcing the best of resilient nonbank financial intermediation. The toxic forms of shadow banking at the heart of the crisis—with their large funding mismatches, high leverage, and opaque off-balance-sheet arrangements—no longer represent a global stability risk (figure 1).

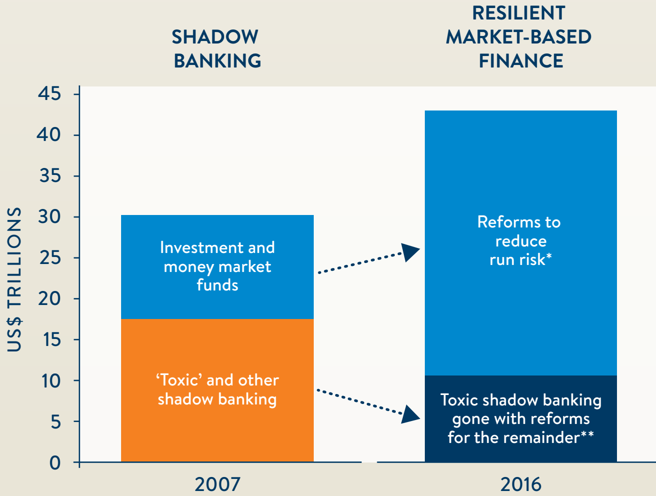
Other, more constructive forms of nonbank finance, including money market funds and repurchase agreement markets, are subject to new policy measures that reduce their risks and

16 For examples of misconduct over two centuries, see FICC Markets Standards Board, "FMSB Annual Report 2017" (FICC Markets Standards Board, London, 2017).

17 See Committee on Payments and Market Infrastructures and International Organization of Securities Commissions, "Principles for Financial Market Infrastructures" (Bank for International Settlements, Basel, Switzerland, 2012).

18 Mark Carney, "To G20 Finance Ministers and Central Bank Governors" (Letter, Financial Stability Board, Basel, Switzerland, March 13, 2018).

FIGURE 1.
SHADOW BANKING HAS TRANSFORMED INTO RESILIENT MARKET-BASED FINANCE



SOURCE: Financial Stability Board, *Global Shadow Banking Monitoring Report 2017* (Financial Stability Board, Basel, Switzerland, 2018).
* Financial Stability Board asset management recommendations and money market fund reforms (notably in the European Union and United States).
** Securitization reforms, market intermediation reforms.

reinforce their benefits. This development is bringing welcome diversity to the financial system.

Finally, let us turn to the lie we began with: *"This time is different."*

If the experience of the financial crisis teaches us anything, it's humility. We cannot anticipate every risk or plan for every contingency. But we can, and must, plan for failure. That is how we can create *an antifragile system* that is robust to both the intensification of known risks and the unknowns.[19]

An antifragile system requires resilient banks.

A decade ago, major banks were woefully undercapitalized, with complex business models that relied on the goodwill of markets and, ultimately, taxpayers. Banks can now stand on their own. The world's largest banks must

19 *Antifragility,* the tendency to grow or gain strength from shocks, rather than suffer harm, was first described by Nassim Nicholas Taleb, *Antifragile: Things That Gain from Disorder* (New York: Random House, 2012).

hold 10 times more equity than before the crisis. And to protect the system from risks we think are low but prove not to be, banks are subject to a simple minimum leverage ratio, which is robust to model risk.

Regulation has made banks less complex and more focused. Business strategies that relied on high leverage, risky trading activities, and wholesale funding are disappearing, as intended. Trading assets have been cut in half, and interbank lending is down by one-third.[20] Banks lend less to each other and more to the real economy.

In response to new global liquidity standards, banks have fundamentally changed their funding models, relying more on deposits, long-term borrowing, and capital, and less on flighty short-term debt. UK banks have increased their contingent liquidity tenfold since the crisis.

An antifragile system requires ending "too big to fail."

Higher capital and liquidity requirements are necessary but not sufficient. Banks must also be able to fail without systemic consequences.

A decade ago, large, complex banks operated in a "heads I win, tails you lose" bubble. They privatized profits in the run-up to the crisis before socializing the losses when the music stopped.

To bring back the discipline of the market and end reliance on public funds, FSB members agreed on standards to ensure that global systemically important banks (G-SIBs) can safely fail in the future.[21] These banks have had to make themselves easier to resolve. They must now hold sufficient debt that in the event of failure, a bank's successor can be recapitalized to support the continued operation of its most important activities.

The powers and tools authorities need to deal with failing banks have been fully implemented in the UK. Our major banks have ring-fenced their domestic activities. They already hold total loss-absorbing resources (TLAC) of 25 percent of their risk-weighted assets, well within sight of the 2022 requirement of 28 percent.[22] As a consequence, market discipline is back, with the public subsidy enjoyed by the UK's largest banks having fallen by 90 percent (figure 2).

An antifragile system must be as robust to operational failures as to financial ones.

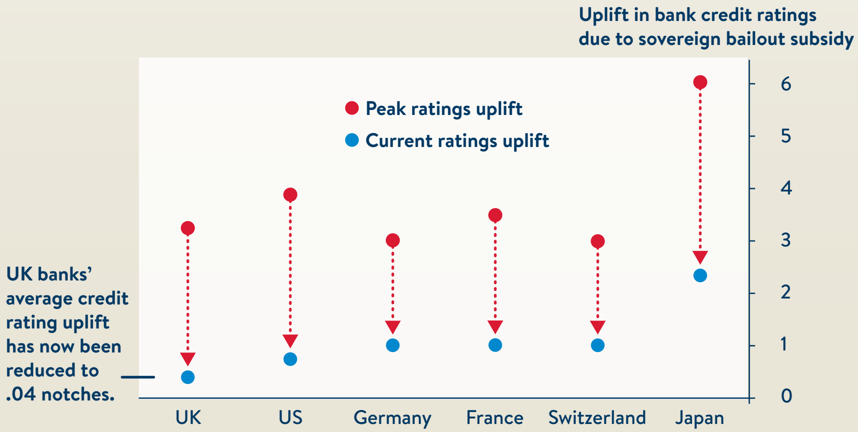
While past crises had their roots in financial losses, in our digital era

20 Both of these figures are as a proportion of the exposures of the 30 banks identified by the FSB as being global systemically important banks (G-SIBs).

21 FSB, "Key Attributes of Effective Resolution Regimes for Financial Institutions" (Financial Stability Board, Basel, Switzerland, October 2014).

22 Across the G20 as a whole, more than 80 percent of all G-SIBs already hold TLAC that meets the 2019 requirement of 16 percent, and 60 percent already meet the 2022 requirement of 18 percent of risk-weighted assets (excluding capital buffers).

FIGURE 2.
MARKETS NO LONGER RELY ON GOVERNMENT SUPPORT



SOURCE: Moody's and Bank calculations.

systemic shocks can also come from nonfinancial sources, including cyber attacks. To improve firms' cyber defenses, the largest banks and the market infrastructure at the core of the UK financial system are subject to penetration tests (known as CBEST) and are required by their supervisors to address any deficiencies uncovered.

In parallel, we are literally planning for failure. Many authorities have begun setting standards for how quickly critical financial institutions must be able to restore vital services following a successful cyber attack. We will conduct cyber stress tests of firms' ability to meet our impact tolerances in "severe but plausible" scenarios and prescribe remedial action plans if they fail. The FSB will report next year on a project to develop effective practices relating to a financial institution's response to and recovery from a cyber incident.

And an antifragile system requires a comprehensive macroprudential framework.

Macroprudential frameworks encourage authorities to meet the next challenge, not simply fight the last war. They prompt exploration of "what could happen," not the false comfort of being ready for what is most likely to happen.[23] Macroprudential authorities must consider the safety of the financial system as a whole. That requires both comprehensive and varied stress testing of the core as well as regular examination of

23 Alex Brazier, "How To: MACROPRU—Five Principles for Macroprudential Policy" (Speech, Financial Regulation Seminar, London School of Economics, London, February 2017).

the risks that may lie beyond the regulatory perimeter.

Macroprudential policy should be countercyclical, building resilience when risks are increasing and drawing on that resilience when risks crystallize. And it must address the macrofinancial implications of major imbalances in the real economy, whether in housing markets or the balance of payments.

CONCLUSION

Eight hundred years of economic history teaches us that financial crises occur roughly once a decade—a frequency that reflects in part the short institutional memories in finance.

Our citizens have not forgotten the last crisis.

The reforms of the past decade have put in place a new financial system that could, with time, regain people's confidence. However, the challenge for policy makers is that, when it comes to financial stability, success is an orphan. As memories fade, complacency sets in and pressure to compromise reemerges. We will forfeit the gains made since the crisis if we once again fall under the spell of the three lies of finance. To resist their siren calls, we must maintain the new institutional frameworks created in the wake of the last crisis.

And this brings me back to Bretton Woods. The IMF and International Bank for Reconstruction and Development were established to provide the infrastructure for postwar development and recovery: to rebuild and to provide international frameworks for cooperation and better policy making. The Bretton Woods founders recognized that many economic problems—until then seen as domestic—could be addressed only with an international approach. We will not abolish crises (which have their roots in changes to the real economy as well as irreducible uncertainty). But we can reduce their frequency and lessen their impact. By resisting the three lies of finance and by voicing truths seldom told, we can build True Finance to better serve our citizens in bad times as well as good.

THE BANK FOR INTERNATIONAL SETTLEMENTS

If It Didn't Exist, It Would Have to Be Invented

WILLIAM C. DUDLEY

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In a volume that commemorates the 75th anniversary of the Bretton Woods Conference, one might ask, why include an essay on the Bank for International Settlements (BIS)?[1] After all, the BIS predates the Bretton Woods Conference. Moreover, one of the decisions made at the Bretton Woods Conference was to close down and liquidate the BIS, even though, fortuitously, this plan was never implemented.

It's appropriate, however, that the BIS should be included in this volume of essays. That's not simply because it escaped the fate of being closed and liquidated, but instead because it has come to play an essential role in the global financial system. In a global economy that does not respect national borders, it is critical that national central bankers, supervisors, and regulators understand what each is seeing and doing, and that their actions be well communicated and coordinated. The BIS plays an important role complementary to that performed by the two institutions established by the Bretton Woods Conference: the International Monetary Fund (IMF) and the World Bank.

Initially as head of the Markets Group of the Federal Reserve Bank of New York, and then later as the bank's

1 My thanks to Sandra Lee of the Federal Reserve Bank of New York for her helpful comments in preparation of this essay.

president, I had the opportunity to participate actively in the BIS's work, including as a member of the Markets Committee (2007/08), which focuses on global financial market developments and the execution of monetary policy; as chair of the Committee on Payment and Settlement Systems (2009–2012), which focuses on payments and financial market infrastructure issues; as chair of the Committee on the Global Financial System (2012–2018), which has a financial stability orientation through its focus on developments within the global financial system; as a member of the Economic Consultative Committee (2009–2018), which acts as the steering committee for policy work and discussions at the BIS; as a member of the BIS board of directors (2009–2018), which is responsible for oversight of the BIS management and business strategy; and as a member of the Steering Committee of the Financial Stability Board (2009–2018), which is hosted and supported by the BIS, and responsible for monitoring and making recommendations about the global financial system.[2] My experiences in these capacities, as related in this essay, underscore the important role that the BIS plays in relation to the IMF and the World Bank.

ROLE OF THE BIS IN CENTRAL BANK POLICY

By way of background, the BIS was established in 1930 to administer Germany's World War I reparation payments. But as part of its mission, it was also given the statutory authority to provide banking services to central banks and other international authorities, and to serve as a place where central bankers could exchange views and coordinate their activities. When German reparation payments were suspended in 1931 and then abolished in 1932 as part of the Lausanne Agreement, the BIS did not fold up its shop but instead continued to provide banking services and act as a forum for central bankers.

Over time, as the process of globalization has continued, the role of providing a forum for central banker discussions has, in my judgment, become the most significant activity of the BIS. Today we operate in a global financial system, with large systemic financial institutions that do business in many different countries, but within a regime in which monetary policy and bank supervision are still conducted on a national basis. Thus, there is a need for a place where central bankers can exchange information about recent and prospective monetary policy developments, and where best practices can be established to help ensure greater consistency in the way banks are regulated and supervised on a cross-border basis.

2 I also served as a member of the Group of Governors and Heads of Supervision, which is responsible for approving the work of the Basel Committee on Banking Supervision, and as a member of the BIS audit and risk committees.

This role of providing a forum for central bankers adds value in several ways. Importantly, it improves understanding of why policy is evolving in the way it is in particular countries and regions; it provides insights into significant lessons that can lead to better policy making in the future; it helps coordinate and improve bank regulatory and supervisory standards; and it facilitates the development of personal relationships and trust, which become particularly valuable during times of crisis.

In my experience, US policymakers have used visits to the BIS to explain innovations in US monetary policy that potentially have implications for global capital flows, financial asset prices, and policy elsewhere. For example, in 2017 and 2018, the balance sheet normalization process that the US Federal Reserve had commenced received considerable attention. Similarly, US policy makers have learned about the advantages and disadvantages of negative interest rate policies from the experience of other countries that have implemented them.

Discussions at the BIS of the lessons from these experiences have also helped guide policy. For example, the experience of Japan following the collapse of its real estate bubble informed US policy makers that they needed to ease monetary policy aggressively following the collapse of the US housing bubble. In the same vein, I expect that ongoing discussions about the US experience with balance sheet normalization will undoubtedly inform the choices made by policy makers in other countries when they start the process.

The bimonthly discussions about monetary policy and the economic outlook in Basel, and the work of the various BIS committees, also serve another very valuable purpose. They help build important professional relationships across the central banking community. These relationships, in turn, build the trust and common understanding that helps to facilitate international policy coordination when it is needed.

In my 11½ years at the New York Federal Reserve, I made the trip to Basel more than 50 times, each time meeting with colleagues tasked with similar responsibilities in other central banking organizations.[3] These trips provided me with the personal contacts and relationships that proved critical in responding to some of the important international dimensions of the financial crisis. In particular, during the fall of 2008, these personal relationships helped facilitate the rapid deployment of a system of coordinated dollar auctions by the European Central Bank, the Bank of England, the Bank of Japan, and the Swiss National Bank in few short weeks.[4] It took only a few conference calls for us to agree on all the details, ending up with auctions conducted with

3 Typically, once a year—usually in March—the BIS meetings are held elsewhere.

4 Although the Federal Reserve also established swap lines with a number of other countries, the coordinated auctions of dollar liquidity were undertaken with just these four central banks.

similar terms and conditions around the world. These auctions of dollar funding were backstopped by foreign exchange swap agreements that each central bank had executed with the Federal Reserve System. They were a significant complement to the Term Auction Facility in the United States in providing dollar liquidity to foreign commercial banks that had impaired access to traditional dollar funding markets. At their peak, these foreign dollar auctions extended a total of more than US$500 billion. By facilitating the flow of dollar liquidity to the global banking system, they helped to stabilize bank funding following the failure of Lehman Brothers. The relationships established at the BIS helped make this process go smoothly.

ROLE OF THE BIS IN FINANCIAL STABILITY

The BIS also plays an important role in the realm of financial stability. Because we operate in a global financial system with a high degree of interconnectivity, no central bank can ensure financial stability through just its own actions. Thus, there is a need for a multinational entity to play a significant role in this area. The BIS fills this role in a number of ways. First, it provides a forum and the infrastructure (including permanent staff) to work on issues that are relevant to financial stability. Such work includes that of the Basel Committee on Banking Supervision (BCBS) to develop liquidity and capital standards for systemic banking organizations.

Although the work of the BCBS is well known, the other Basel committees also play important roles in financial stability. For example, when I chaired the Committee on Payment and Settlement Systems (CPSS) during 2009–2012, the main focus of our work was to strengthen the standards that should be applied to critical financial market infrastructures with respect to issues such as oversight, governance, liquidity, and risk management. This work, which we did jointly with the International Organization of Securities Commissioners (IOSCO), was particularly urgent in two respects. First, the prior standards were out of date, were not comprehensive, and lacked teeth—being more in the form of recommendations than standards. Second, the agreement among the G20 countries to mandate the central clearing of over-the-counter derivatives transactions increased the importance of global financial market infrastructures. A consistent global approach was necessary.

The CPSS-IOSCO work resulted in the Principles for Financial Market Infrastructures (PFMI). Not only do the PFMI provide a guide to the conditions that financial market infrastructures need to meet in order to operate effectively and safely, but they have become the global basis for the implementation of regulatory standards on a country-by-country basis.

Similarly, the successor committee to the CPSS, the Committee on Payments and Market Infrastructures (CPMI), which I chaired, has played a pivotal

role in a number of important payments issues—some of which are relevant to financial stability. For example, after evaluating the Bangladesh cybersecurity theft, the CPMI took a number of actions to make the international payments system safer. In particular, the CPMI—with my wholehearted encouragement and support—worked to clarify the responsibilities of those involved in global payment chains—the party initiating the payment, the payment infrastructure provider, and the party clearing and settling the payment. The CPMI also worked to institute an effective assurance regime so that participants in global payments could be confident that all the other participants in the payments chain met a minimum set of global standards.

On the financial stability front, the BIS also plays a vital role in a number of other ways. It hosts the Financial Stability Board, which has been a leader in assessing the emerging risks in the global financial system and coordinating international work on numerous topics, such as the resolution and recovery of systemically important banks and financial market infrastructures. Moreover, the BIS research department has done pioneering work on financial stability issues for several decades. For example, before the onset of the financial crisis, the head of the BIS research department at the time, Bill White, was quite prescient in his analysis of emerging financial stability risks.[5]

As part of this work, the BIS has played a valuable role in highlighting the potential use of macroprudential tools to address financial stability risks. For example, the Committee on the Global Financial System has produced a number of papers that document what has been achieved to date and some of the issues that make the use of macroprudential tools difficult. While this is still a subject in its infancy, over time I expect that macroprudential tools will prove to be an important complement to microprudential tools, such as bank regulation and supervision, in helping to foster financial stability.

The BIS is also vital in developing and compiling international banking data. For example, the BIS systematically keeps track of cross-border banking capital flows and global derivatives activity. It also maintains a secure database of supervisory information on systemic banking organizations. Both of the databases are important tools for assessing the risks to the global financial system and determining appropriate prudential standards, such as capital and liquidity requirements.

Finally, the BIS provides financial services and assistance to central banks and other international authorities. As a provider of banking services, the BIS has a reputation for high-quality service,

5 See, for example, Claudio Borio and William White, "Whither Monetary and Financial Stability? The Implications of Evolving Policy Regimes" (Working Paper No. 147, Bank for International Settlements, Basel, Switzerland, 2004).

safety (due to its low-risk balance sheet and high level of capitalization), confidentiality, and security. Especially when times are uncertain, the strength of the BIS balance sheet and its operational capabilities help support international financial activity and enhance financial stability.

I think it should be apparent that I am a big fan of the BIS. Nevertheless, there are some areas in which improvements could make the BIS even more effective.

AREAS FOR IMPROVEMENT

First, the BIS should strive toward greater transparency about its role and responsibilities. Transparency is particularly important at a time when many established institutions are viewed with suspicion and hostility. For example, some observers in the United States believe that the BIS imposes international capital standards on US banking institutions. Nothing could be further from the truth. The Basel capital standards are voluntary and were developed via consensus. US central bankers and bank regulators view the Basel standards positively because they help establish a floor on capital requirements around the world, helping to prevent a "race to the bottom." This mechanism benefits the United States, where national bank capital standards are generally higher.

Providing more insight into the development of these types of international standards and the other activities of the BIS would presumably increase the perceived legitimacy of these efforts. At a minimum, it would help quash conspiracy stories about what the BIS central banker cabal is up to! Transparency might also be enhanced by greater outreach as well as more detailed published agendas and minutes of the activities of the various BIS committees.

Obviously, there is a limit to how far transparency should go. Too much transparency might prove counterproductive by inhibiting candor and willingness to exchange sensitive information on a confidential basis. But I don't think the BIS is close to that limit. In my opinion, the perception that it is a secretive organization outside the control of elected governments serves to undercut its mission.

The second area for improvement is for the BIS to continue to broaden its membership and provide a greater role for emerging-market economies. When the BIS was established, it had a predominantly European focus because administering the German World War I reparations was its primary purpose. Although the European role has lessened over time as important emerging-market economies such as China and India have begun to play greater roles, European countries still have outsized representation relative to their role in the global economy. For example, they

have a large number of members on the key BIS committees and its board of directors.

While there is more to do in this area, the BIS is moving in the right direction. For example, in 2019, the composition of the BIS board of directors is changing in a fundamental way—several European countries are losing their second board seats, and the proportion of non-European directors is increasing, even as the total number of board members shrinks to 18 from 21. Similarly, it is gratifying to see officials with an emerging-market country background taking on key roles in BIS management. For example, Agustín Carstens, former head of the Bank of Mexico, is the first BIS general manager from an emerging-market country.

The third area for improvement is to increase diversity and inclusion in the BIS management. Currently, for example, women are very underrepresented, with most of the major management positions of the Bank held by men. While one can argue that the underrepresentation of women and minorities is also true for central banking more generally, the BIS could do better and show greater leadership in this area. Put simply, for the BIS to be viewed as fully credible, the composition of its leadership needs to be more diverse.

A final area for focus—and this goes back to the earlier issue of transparency and communication—is to clarify how the work of the BIS fits in, relative to the activities of the IMF and the World Bank. In my own experience, the BIS works well with these two institutions. Representatives from the two groups are often included in BIS working groups, and the IMF regularly participates in the Global Economy Meeting at the BIS, which focuses on international economic developments. In addition, the Financial Stability Board's Standing Committee on Assessment of Vulnerabilities includes representatives of the IMF and the World Bank, and works closely with the IMF on ongoing assessment of emerging financial-system risks and vulnerabilities. But it is not always clear where the boundaries are or where they should be, and this obscurity, at times, can lead to tensions between the institutions and redundancy of work efforts. Obviously, because it takes two to tango, this is not an issue that the BIS can address on its own. It also requires a commitment from the IMF and the World Bank.

CONCLUSION

In conclusion, I believe that globalization of the economy and financial system has generated huge benefits for people around the world, literally lifting hundreds of millions of people out of poverty over the past few decades. In such a world, there is a critical role for international organizations like the BIS—to provide a forum for central banks to discuss and debate, to provide a coordination mechanism to establish coherent global international banking standards, and to provide an independent voice in

analyzing those issues that may impinge on the ability of the global financial system to function efficiently in allocating risk and intermediating the flow of funds between savers and borrowers. These are very important functions that complement the roles played by the IMF and the World Bank.

GLOBAL FINANCIAL COOPERATION AS A LEGACY OF BRETTON WOODS

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The Bretton Woods Agreement reflected a commitment of its members—led by the United States and the United Kingdom—to promote greater global openness and economic cooperation following the inward-looking policies adopted during the Great Depression.[1] The agreement envisioned an international monetary framework that would allow countries much greater latitude to achieve domestic economic objectives, including full employment, than under the gold standard. International cooperation was regarded as an essential building block for achieving those domestic aims, with the newly created International Monetary Fund (IMF) playing a key part by providing loans to countries facing balance-of-payments problems. Such liquidity support was expected to reduce the likelihood that countries would have to sharply tighten monetary and fiscal policy to maintain exchange rate stability, which had been the standard recourse under the gold standard and an important factor intensifying the Great Depression.

The belief that international economic cooperation could help countries advance their national interest was not limited to economic and financial concerns. The greater economic stability that the Bretton Woods framework was expected to secure was regarded as vital for world peace and the stability of

1 I am grateful to Christopher Erceg of the Federal Reserve Board for his assistance. The views expressed in this essay are my own and not necessarily those of the Federal Reserve Board or the Federal Open Market Committee.

democratic institutions, both of which had been undermined by the Great Depression.

The spirit of Bretton Woods—that domestic goals can be advanced by international cooperation—remains very much alive today. My contribution begins with a short retrospective on Bretton Woods that emphasizes this important message. It then discusses the benefits to the global economy of international cooperation to build a more stable global financial system and, finally, highlights the key role of international institutions in that undertaking.

BRETTON WOODS

Following the disastrous experience of the Great Depression, there was widespread recognition of the need to overhaul the global monetary system. The gold standard—which had emerged as the dominant monetary framework in the 19th century and remained in force through the early Great Depression years—required central banks to keep a singular focus on maintaining the parities of their currencies against gold. This meant that central banks had to tighten policy sharply when flight-to-safety concerns induced a scramble toward gold during the Depression, even as banks collapsed and unemployment topped 20 percent in many countries. While most countries had abandoned gold by the mid-1930s, the open global trade and financial system that had prevailed over much of the previous century was radically altered as countries turned to more inward-looking policies.

The architects of Bretton Woods aimed to devise a monetary system that not only would help avert the catastrophic developments of the Great Depression—including global deflation and financial collapse—but would also give countries much greater ability to achieve domestic policy objectives such as full employment.[2] Moreover, they wanted the new system to facilitate the eventual return to a more open system of global trade, which they regarded as key for rebuilding war-ravaged Europe as well as buttressing support for democratic institutions around the world.

The Bretton Woods system retained some of the features of the classic gold standard, including fixed exchange rates relative to the US dollar, which served as the major reserve center currency, and the use of gold as the ultimate nominal anchor for the system. However, the Bretton Woods system differed in several key respects, in order to give countries more latitude to pursue domestic goals. First, the link to gold was far weaker than under the gold standard, allowing the United States substantial latitude to pursue monetary policy directed

2 For excellent overviews of the Bretton Woods system, see Michael D. Bordo, "The Bretton Woods International Monetary System: A Historical Overview," and G. John Ikenberry, "The Political Origins of Bretton Woods," chapters 1 and 3, respectively, in *A Retrospective on the Bretton Woods System*, edited by Michael Bordo and Barry Eichengreen (Chicago: University of Chicago Press, 1993).

toward domestic goals, including maximum employment and price stability.[3] Second, Bretton Woods supported pervasive capital controls to give countries some degree of monetary policy independence (even under fixed exchange rates) as well as reduce the risks posed by volatile capital flows. Finally, Bretton Woods regarded international cooperation as playing a vital role in supporting the system. Rather than forcing countries experiencing balance-of-payments deficits to adopt highly contractionary monetary and fiscal policies, as under the gold standard, Bretton Woods allowed them to borrow from other members to ease the adjustment burden. The IMF was established as the key conduit for such borrowing, though cooperative efforts eventually assumed many forms, including direct loans and swap lines between sovereigns.

The Bretton Woods system contributed to far better economic outcomes than those of the interwar period.[4] Many countries achieved very low unemployment rates, in the 2 to 3 percent range or even lower, while also keeping inflation reasonably in check. The stable economic environment encouraged a gradual rollback of trade barriers that fueled a progressive expansion of world trade.

Of course, the Bretton Woods system had many shortcomings that contributed to its early demise after only a quarter century of operation. Expansionary monetary and fiscal policy in the United States in the late 1960s was an important catalyst for the breakdown. Countries such as Germany that wanted greater monetary independence to keep their own inflation rate low found that capital controls didn't provide a sufficient buffer, given the progressive development of global capital markets. For countries experiencing balance-of-payments problems, greater capital mobility meant that larger loans were required from the IMF and its trading partners—a development that eventually helped undermine international support for the Bretton Woods system.[5]

The breakup of Bretton Woods marked the beginning of a long period in which the United States and other major economies experienced high inflation—unprecedented in peacetime—and those economies struggled to reanchor inflation at a level consistent with price stability. Sparing the

3 Balance-of-payments concerns appeared to play little role in influencing US policy through much of the Bretton Woods period, at least outside of the late 1950s and early 1960s. See Michael D. Bordo and Barry Eichengreen, "Bretton Woods and the Great Inflation" (NBER Working Paper 14532, National Bureau of Economic Research, Cambridge, MA, 2008).

4 Bordo, "The Bretton Woods International Monetary System: A Historical Overview."

5 Barry Eichengreen discussed ways in which weaknesses in the Bretton Woods system spurred efforts to expand international backstops beginning in the early 1960s; he argued, however, that the problems with the system were too pervasive for these efforts to be successful. See Barry Eichengreen, "International Policy Coordination: The Long View," in *Globalization in an Age of Crisis: Multilateral Economic Cooperation in the Twenty-First Century*, edited by Robert Feenstra and Alan Taylor (Chicago: University of Chicago Press, 2014), 43–82.

many—and familiar—details of how this reanchoring was achieved, the new system that emerged was vastly different from the Bretton Woods system that preceded it. Flexible exchange rates gave major central banks the latitude to set interest rates as they desired to achieve domestic policy objectives, hence permitting much greater autonomy than under Bretton Woods. But the new environment raised two key questions that policy makers have wrestled with since the success of the new monetary framework in holding inflation in check became apparent several decades ago: First, is cooperation among central banks, governments, and international policy institutions still necessary to achieve domestic policy goals? And second, are the international policy institutions themselves still necessary, and for what purposes?

INTERNATIONAL COOPERATION AND POLICY INSTITUTIONS

The consensus view that emerged during the Great Moderation period seemed to lean strongly toward no to the first of these questions, at least with regard to the conduct of monetary policy. The high degree of success of major central banks in achieving their monetary policy objectives, including low and stable inflation, reinforced confidence in the benefits of a decentralized approach. Despite some exceptions, such as the Plaza and Louvre Accords, discussions among monetary authorities during this period centered around exchanges of information and viewpoints rather than actual policy coordination.

On the second question, the role of the IMF generated considerable debate, and even the IMF's many supporters saw its future role as likely to be focused on macroeconomic stability in the developing countries, including providing liquidity support to such countries confronting economic crises. I believe that such intervention on the part of the IMF should be as limited and as rules-based as possible, given the moral hazard of increased sovereign risk taking and diminished market discipline that ensue from such intercession. But that is quite different from denying the usefulness of appropriately structured intervention in severe cases. The overuse or misapplication of antibiotics can create systemic pathologies, but in appropriate cases, these drugs remain essential medicine.

The global financial crisis provided a clarion call for heightened international cooperation to support a stable global economy and build a more resilient financial system. This rationale for cooperation is different than that under Bretton Woods, which relied on international cooperation to support a monetary system based on fixed exchange rates. In my view, it remains desirable for central banks in the United States and other floating-rate economies to formulate policy independently to achieve domestically mandated objectives, leaving

explicit monetary policy cooperation to exceptional circumstances (such as those that prevailed during the crisis).

The crisis, however, did make very apparent the importance of financial stability for monetary policy to operate effectively. Because financial stability is, in many respects, a global good, international cooperation can help countries better achieve their domestic objectives—a theme very much in the spirit of Bretton Woods.

While building a stronger financial architecture has many dimensions, it is useful to focus on two key elements.[6] First, the crisis highlighted the need to share information about the cross-border activities and linkages of major financial institutions. These linkages were the springboard for the rapid propagation of the crisis, but regulators in the United States and abroad had far too little information about the complex interconnections between firms. The second and perhaps most salient need was to ensure that financial firms, including large and globally interconnected firms as well as others outside the usual regulatory perimeter, build up sufficient capital and liquidity buffers to withstand severe shocks.

International cooperation is vital both for facilitating the sharing of information about financial firms and their activities, and for enforcing uniform capital and liquidity standards for financial firms at a global level. In addition, achieving a level playing field for financial market participants is crucial. Given strong cross-border financial linkages, the effectiveness of prudential policies, both micro and macro, in any particular country—say, the United States—depends on the standards adopted in other countries. The United States would have little incentive to raise standards if other countries failed to follow suit: doing so would put its own financial institutions at a competitive disadvantage and possibly even undermine global financial stability by encouraging regulatory arbitrage toward other economies with weaker standards.

International institutions must play a central role in these cooperative efforts. In the early wake of the crisis, the leaders of the G20 countries expanded and transformed the earlier Financial Stability Forum into the more muscular Financial Stability Board (FSB) to help provide the collective action required to build a much stronger and more resilient global financial system. The FSB includes central banks, finance ministries, and regulators from 24 countries and the European Union, as well as international organizations such as the IMF and key global standard-setting bodies. The wide representation, including that of emerging-market economies, helps ensure that countries with large financial sectors have input into building and refining the global regulatory

6 Randal K. Quarles, "Getting It Right: Factors for Tailoring Supervision and Regulation of Large Financial Institutions" (Speech at American Bankers Association Summer Leadership Meeting, Salt Lake City, Utah, July 18, 2018).

architecture. The FSB has worked concertedly to help identify vulnerabilities of the financial system and to formulate macroprudential standards—including standards for bank capital and liquidity—that apply across countries.

From a broad perspective, the FSB may be regarded as developing voluntary guidelines for the global financial system. While some may view these efforts as threatening to national sovereignty, such fears are misplaced. The FSB, in fact, can only provide guidance, not impose rules: it has neither legal authority to command its members to do anything nor any enforcement powers. Indeed, the United States and other members of the G20 founded the FSB to help serve their national interests by creating a stronger global financial system. Members benefit from getting a seat at the table to help ensure that their national interests and perspectives are taken into account. Ultimately, all countries can benefit when each country does its fair share to promote financial stability, including adhering to well-chosen guidelines.

Even so, it's important to underscore that the FSB, as well as other rule-setting bodies, needs to be responsive to a rapidly changing global financial system. The development of new financial technologies will likely have a transformative impact on banking and the payments system in coming years, which raises exciting possibilities but also important risks that the regulatory framework must be suited to contain. Moreover, it is also critical for these regulatory bodies to conduct an ongoing critique of their recommendations to ensure that they are having the intended effects. A key goal of the FSB in the future will be a regular review to make sure that our tools are effective and, even if so, to assess whether we can achieve desired stability objectives in a more efficient way that minimizes regulatory burdens on firms and consumers.

CONCLUSION

The cooperative approach taken by the architects of Bretton Woods helped pave the way for the strong and sustained expansion of the global economy in the postwar period. These cooperative efforts—in both the economic and foreign policy spheres—helped countries achieve their domestic goals far better than the inward-looking policies of the interwar period. We are now living in a moment when the usefulness of the Bretton Woods institutions, and the benefits of international economic cooperation generally, are being questioned by influential voices in many countries. In my own country, critics who share my view that government action should be as transparent and rules-based as possible argue that IMF intervention in sovereign financial crises creates moral hazard that ultimately makes the system less stable, and they have added the criticism that FSB cooperation on financial regulation threatens US national sovereignty.

As someone who shares those critics' fundamental world view, my experience has shown me that the first criticism, while important, can be overstated, and

the second is misplaced. IMF support policies can be appropriately structured to limit moral hazard while recognizing the stabilizing role that such support can play, and FSB coordination of regulatory policy serves its members' sovereign interests in maintaining a stable financial environment in which to pursue domestic objectives. Continued international cooperation is critical for ensuring a stable global financial system on which the attainment of national goals, including full employment and price stability, is clearly predicated. In the spirit of Bretton Woods, international institutions—including the IMF, the FSB, and others—will remain cornerstones of these cooperative efforts.

COORDINATION IN THE FUTURE REGULATORY ENVIRONMENT

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Following the Great Financial Crisis, regulators and banks have engaged in considerable efforts to enhance the resilience and resolvability of the financial sector. The reason for these efforts is to ensure that banks can live up to their fundamental role in the economy in a sustainable manner. This article will briefly outline the main structural achievements toward a more robust financial sector following the Great Financial Crisis, identify remaining areas of concern that need to be addressed, and highlight the main areas requiring future attention by authorities and the private sector alike. These areas include questions raised by new technologies but also broader risks, such as those related to climate change. Banking regulation, supervisory cooperation, and the dialogue between authorities and the private sector will need to evolve to keep pace with a rapidly changing environment.

POSTCRISIS REFORMS AND INTERNATIONAL COOPERATION

Regulation of the financial services industry has undergone a complete overhaul since the global financial crisis that started in 2007. That crisis led the G20 to define a comprehensive reform agenda, which has since transformed the industry and the way financial service providers do business. The result of these globally coordinated reforms is a substantially stronger foundation for financial stability. Objectives will be achieved when a full, consistent, and timely implementation of these reforms is completed.

Enhanced Regulation and a Fundamental Reform

The most important changes to financial services regulation have been the strengthening of the international banking regulatory framework (Basel III), substantial enhancements to shift the over-the-counter derivatives business to central clearing, and the creation of recovery and resolution mechanisms aimed at ending the concept of "too big to fail."

Basel III increased the quantity and quality of required regulatory capital, with effective requirements for global systemically important banks (G-SIBs) going up by a factor of more than 10. It also introduced an internationally agreed-upon liquidity framework and a macroprudential overlay for the first time. New central clearing and reporting requirements on derivatives transactions provide netting opportunities to reduce risks, increased transparency, and better risk management overall. Finally, a number of actions have been taken to address the moral hazard posed by global systemically important financial institutions (G-SIFIs). The framework adopted is a multifaceted set of measures, the core of which is the total loss-absorbing capacity (TLAC) concept. TLAC is intended to absorb losses after an institution has failed and to facilitate an orderly resolution as well as the recapitalization of a new holding company for the failed bank holding company's operating subsidiaries. Taken broadly, this fundamental reform includes the following elements:

- Requirements that have been endorsed for additional loss absorption capacity to reflect the greater risks that G-SIFIs pose to the global financial system
- More intensive and intrusive supervision of G-SIFIs, with higher expectations for such matters as risk governance, internal control, and risk data aggregation capabilities
- Establishment of international supervisory colleges for better coordination among home and host authorities in assessing risks facing G-SIFIs
- Development of an international standard to set out the responsibilities, instruments, and powers that national resolution regimes should introduce into national law (i.e., the Financial Stability Board's "Key Attributes of Effective Resolution Regimes for Financial Institutions")[1]

These measures should enable authorities to resolve failing financial firms in an orderly manner without exposing public funds to loss.

1 Financial Stability Board, "Key Attributes of Effective Resolution Regimes for Financial Institutions" (Financial Stability Board, Basel, Switzerland, October 2014).

International Cooperation Is Essential to Tackle Future Challenges

Despite substantial progress made, notably on the implementation of external TLAC and the development of recovery and resolution plans, work remains for both authorities and firms to achieve full implementation of the measures listed above. Areas of focus include the following:

- Issues related to the identification of material subgroup entities and the distribution of internal TLAC, where it is key to maintain incentives for effective cross-border cooperation, particularly when implementing single-point-of-entry resolution strategies
- Funding in resolution, to ensure that liquidity will remain available to maintain critical operations in resolution
- Additional clarity for operationally executing bail-ins while maintaining financial stability
- Valuation issues, operational continuity, and disclosure to provide even more assurance of the financial system's strength and readiness to face a new crisis
- Pressure on profitability, loss in risk sensitivity (associated with a substantially more binding leverage ratio and a capital floor), increased lending costs, and the risk of aligned behavior due to standardized risk measurement—all topics that can raise questions about the optimal level of regulatory requirements

Authorities have been successful in requiring sufficient levels of gone-concern capital so that a bank's bail-in effectively supports recapitalization and stabilization of the failed entity. However, while the capital requirements and resolution plans of G-SIBs remain the responsibility of *national* authorities, one bank's difficulties can rapidly morph into *global* financial stability issues. Therefore, international and cross-border cooperation should continue to be a priority for national authorities, so as to provide an effective and robust banking supervision system.

At the same time, several jurisdictions have put local requirements in place that go beyond those foreseen by the Financial Stability Board, such as asking banks to create intermediate holding structures to insulate a substructure from the rest of the group, or requiring them to trap significant capital resources at the national level. Through actions like these, regulators run the risk of creating the illusion of strength from a systemic perspective, despite the reality that resources are unavailable to flow freely and stabilize the system in the case of a crisis.

To make sure that national accountability and political expectations do not lead to further fragmentation, authorities need to deepen their international cooperation in order to find global solutions to global issues. Because large firms operate globally yet laws

remain national, international organizations have to play certain central roles. Examples include fostering international dialogue and collaboration, monitoring the implementation of reforms, and assessing vulnerabilities. International regulatory bodies, provided they operate under robust and transparent governance, should remain independent from undue political pressure. Other international financial institutions should build on their analytical resources, data collection capabilities, and global outreach to monitor the implementation of regulatory reforms and assess vulnerabilities. They should do so in a transparent manner that includes an open dialogue with the private sector, and under an adequate accountability mechanism.

PREPARING FOR THE CHALLENGES OF THE FUTURE

How to resolve failing banks is an essential mechanism of a safe and sound financial system. At the same time, ensuring the viability and profitability of banks in the future remains the preferable course of action to stabilize them in the postcrisis era. Challenges and opportunities are many.

Digitalization, Data, and Cybersecurity

Digitalization is an important challenge as well as an opportunity for financial services companies, and it will be the major determinant of success in the coming decade. The challenge needs to be tackled from both a business and a regulatory perspective, in a sensible way. Things boil down to the following question: how can banks be innovative and competitive in a manner that is sustainable over the long term? The financial services industry should embrace technological change as an opportunity rather than a threat, but monitor risks closely. Banks that fully embrace digitalization can become "holistic banks," positioning themselves as trusted partners beyond the traditional understanding of financial services. Technology and digitalization will enrich client interactions, driving banks to rethink their operating models and adapt to shifting client needs, as well as to achieve more efficiency in back-office functions and processes. For example, though not a panacea, distributed ledger technology (DLT), with its considerable potential to drive simplicity and efficiency, is poised to be one of many technologies that will form the foundation of next-generation financial services infrastructure. DLT and other significant innovations will require strong collaboration between incumbents, innovators, and regulators to harness their benefits for consumers and the economy at large.

At the same time, regulators will have to stay vigilant with respect to these new business models that technology enables. They will have to monitor the risks in terms of financial stability and possible crossover into shadow banking, as well as in terms of risks to data privacy,

operations, and cyber security. Therefore, regulators have an important role to play: ensuring a level playing field (a "same risk, same regulation" approach) and an innovation-enabling mind-set. These are the two key aspects of the future of regulation in this domain that will have to be balanced. Parallel to this balancing act, innovation must not be stifled by premature regulation or misaligned incentives.

Last but not least, given the significantly increased complexity and costs of compliance for financial institutions in the last decade, it is a welcome development that regulators are increasingly looking at ways to support the adoption of new technologies to facilitate the delivery of regulatory requirements. Regtech (the use of new technologies to solve regulatory and compliance requirements more effectively and efficiently) has enormous potential to enable better compliance solutions, increase efficiency and profitability, and reduce barriers to entering the sector.

One area that requires greater attention is the different ways in which banks and technology companies approach the use of data. "Big data," in particular, and the ability to effectively make use of it is central to the development of innovative and customized services for the benefit of customers. At the same time, data protection, as one of the key issues associated with big data, is gaining importance due to the increased volume and availability of personal data and consumers' demand for immediate access to more personalized products and services over a variety of distribution channels. Regulators should focus on providing the right conditions as well as clarity about how existing regulations must be applied, thus enabling financial institutions to serve their customers in the best way possible by developing big data technologies. There would be clear benefits from aligning and indeed balancing incentives to ensure access to data, addressing privacy and security concerns, and overcoming technological barriers.

Amplified by the growing use of technology, cyber security threats have evolved over the last 10 years to become more sophisticated, more targeted, and more frequent. Cyber security and cyber resilience are among the priorities of both regulators and financial institutions. It is critical that governments and law enforcement agencies commit the necessary resources to deter criminal activities. More cooperation is also needed between the private and public sectors, as well as international alignment of cyber security regulations and practices. The public and private sectors should work proactively together, across borders, to share information about attacks, exchange best practices, and continually improve security systems to deter cyber criminals. Existing barriers to effective information sharing should be addressed, primarily through reinforcing cross-border coordination of the various actors. Regulators should coordinate the national frameworks, enabling cross-border reporting of cyber security incidents. In addition, the

public sector, in collaboration with the private sector, needs to put more effort into raising the cyber security awareness of the general public. Increased cyber security education, training, and skill development will guide consumers on their digital journey and help them make more informed and conscious choices when using digital channels, which increasingly include financial services.

A Broader Picture of the Risk Landscape: Sustainability

While authorities and firms have made significant progress to tackle issues brought to light by the Great Financial Crisis, new risks, challenges, and opportunities have become more prominent. In this regard, the industry and regulatory response to sustainability in finance is a trend that has emerged over the past few years, is unlikely to fade away, and therefore deserves attention.

As opposed to regulatory reform and the industry's corresponding adjustments in the past decade, sustainable finance was not born out of a crisis. The issues at its core primarily concern challenges in the global economy and society, in the resolution of which the financial sector can play a key role as an intermediary. Given the global nature of the issues, it is important that regulators and policy makers be internationally coordinated and closely engage with the industry when considering introducing additional regulatory requirements. Such engagement will provide better cross-border applicability, global comparability, and a level playing field.

Industry-driven initiatives can, in some cases, be more efficient to introduce than those from outside the industry. As an example, the sustainable and impact investment industry needs to further agree on, simplify, and standardize its terms and products. Common definitions for sustainable investment would both distinguish it from charitable giving and reassure skeptics that the asset class actually delivers positive social and environmental outcomes. The industry should also work on providing meaningful benchmarks.

Having said that, the primary focus of regulators at this point in time should be on removing regulatory hurdles to a more sustainable and greener financial system. Regulators should help promote a sound framework for internationally comparable data provision and product labeling to enhance trust and potentially help avert greenwashing. The search for global standards should not inhibit the further development of new and innovative products and methodologies.

However, any measures related to mandatory disclosure or stress testing would be premature, in particular as long as data and metrics that are meaningful and material to making a forward-looking assessment of risks are not readily available.

Sustainable investment would also benefit from the development of a fully-fledged derivatives market. Institutional investment capital will

flow into sustainable markets at scale only if large asset managers can use derivatives to navigate such markets in the same way as traditional ones. Deeper derivatives markets would also make it easier for investors to reduce the volatility of their financial returns. That would encourage institutions to pledge capital to sustainable investment projects for longer periods of time and stay invested even in choppier economic or political circumstances.

CONCLUSION

National regulators acknowledged early on that effective international cooperation in developing a regulatory framework is a prerequisite of a stable financial system. International organizations continue to be an essential part of that global mechanism. Besides that, continued effective cross-border cooperation in supervising financial institutions is a necessary condition, not only to ensure that enacted reforms deliver their effect fully but also to tackle new challenges.

A globally consistent regulatory framework is all the more important in a period of profound and irreversible technological changes that are transforming banking and financial markets. Firms should continue to adapt and serve the interests of their shareholders, clients, and other stakeholders, while regulators and supervisors should take into consideration the broader perspective when developing public policies. Public authorities should continue to be inclusive and transparent in their deliberations, and they must ensure their own continued access to the resources and capacity necessary to supervise changing institutions and financial markets in a constantly and rapidly evolving environment.

Finance needs to reinvent itself in order to play a key role in shaping the future and fostering sustainability. Private investment is crucial to meeting ambitious global sustainability targets, such as the United Nations' Sustainable Development Goals. But these assets will move into the mainstream only if the public and private sectors work together. They must turn our shared interest in solving social and environmental challenges into concrete actions—such as getting the sustainable investment market infrastructure right.

STRENGTHENING AND DEEPENING THE INTERNATIONAL FINANCIAL ARCHITECTURE

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In the years leading up to the 2007-08 financial crisis, there was a broad consensus among reformers that the international financial architecture needed to be more inclusive and the doors of international financial consultation should be opened to emerging economies. The development of key guidelines for prudential regulations, standards, and codes should include all economies with systemic influence. Further, all entities involved in the functioning of the international financial system, not just the banks, should be subject to a genuine international coordination of prudential regulations, so as to encompass the system as a whole.

Before the 2007/08 crisis, the international community indeed continued to grant advanced economies a significant privilege. In the case of informal coordination in economic, financial, and monetary matters, the G7 held most of the authority and influence, at the levels of governors and finance ministers, and ultimately heads of state and government. Regarding the central banks, the group that had the leading role in terms of informally coordinating prudential regulations was the group of the 10 largest central banks of industrialized countries, which meets in Basel, Switzerland.

Admittedly, the central banks had already decided to broaden the role of the Global Economy Meeting of the Bank for International Settlements

(BIS), which brought together around 30 central banks, thus anticipating future developments in the architecture of international relations. But it was not until the crisis that this architecture underwent a shift. The G20—which brings together all of the world's systemically important economies, not just those of the advanced countries—came to replace the G7 as the main forum for informal consultation. This was a historic change. Naturally, this change in global informal governance needed to be accompanied by equivalent changes in the formal governance of international financial institutions, particularly the International Monetary Fund (IMF) and the World Bank. It is unfortunate that these changes have been slow and, on the whole, remain arduous and inadequate.

The G20 has two fundamental global responsibilities: on the one hand, the coordination of macroeconomic policies at the level of systemically important economies, and on the other hand, the development of all prudential regulations, standards, and codes concerning the prevention of systemic economic and financial risk. The first element is crucial. The lax macroeconomic policies of advanced economies were among the main causes of the 2007/08 disaster. Good coordination to prevent the emergence of excessive external deficits—which are merely a reflection of abnormal internal imbalances—such as the persistence of abnormally high external surpluses, is a prerequisite for global financial stability.

The launch of the G20 Mutual Assessment Process on the macroeconomic front, with the support of the IMF, is a theoretical first step toward a change that must be deepened and considerably strengthened if we are to avoid future crises of a similar nature. We can only raise the alarm in this regard, given the persistent increase in total public and private debt as a proportion of global GDP.

The second element of the G20's new responsibility has existed, virtually, since the 1997 Asian crisis—as a complement to the G7's responsibilities—but the G20 has taken center stage with the more recent financial crisis. The Financial Stability Board (FSB), created in April 2009, reports to the G20, while its predecessor, the Financial Stability Forum, reported to the G7. The FSB now has 70 national member institutions, representing 24 countries, several international standard-setting bodies, and six regional and international financial institutions—in particular, the IMF, the World Bank, the Organisation for Economic Co-operation and Development, the BIS, the European Central Bank, and the European Commission. This list goes to show that since the 2007/08 global financial crisis, the two objectives of "inclusiveness" of all systemically important countries and "comprehensiveness" in considering all elements of the international financial system have been followed.

Such inclusiveness and comprehensiveness are necessary for a better functioning of the international monetary

system (IMS) in the broader sense; however, they are not enough. The progress to be made in this area is all the more significant as the new features of a system that is rapidly changing under the influence of globalization and technological developments are only gradually appearing and are difficult to foresee. The key responsibility of the FSB in this regard remains the correct identification and prevention of systemic risk.

To sum up, even if much progress has been made over recent years, a lot remains to be done as regards global financial governance, and there is ample room for further reforms.

The best diagnosis and the best set of necessary reforms are to be found in the report of the Eminent Persons Group on Global Financial Governance (EPG) published in October 2018: "We need a credible and well-coordinated global financial architecture to meet the needs of a world that is *more decentralized in decisions, yet more interconnected and more challenged in its future*" (emphasis in original).[1]

A "new multilateralism" should substitute now for the old multilateralism. This new concept must reinforce the resilience and the strength of the global financial system as a whole. It is the aim of the reforms proposed in the EPG report: significantly improve sustainable and inclusive development, preserve financial stability, and govern the global system as a system rather than a set of individual agencies.

POSSIBLE WAYS TO IMPROVE EXCHANGE RATE RELATIONS

Still, in my view, even if, thanks to the reforms proposed by the EPG report, the international community were to achieve a significantly greater development impact, secure more effectively the benefits of interconnected financial markets, and make the international system work much more significantly as a whole, there would still be cause to reflect on serious imperfections of the IMS in terms of exchange rate relations.

First, since certain currencies play the de facto role of reserve currency, the system remains potentially unbalanced. The dominant central currency must offer the additional liquidity required to support global economic and trade growth. The dominant economy is therefore forced to accept a structural current account deficit, mechanically funded through an increase in the foreign exchange reserves of other countries. There is a contradiction here between the aims of the dominant economy's internal monetary policy (which should, in particular, include the domestic stability of the global monetary anchor) and its external role as provider of global liquidity.

1 G20 Eminent Persons Group on Global Financial Governance, *Making the Global Financial System Work for All* (n.p.: G20 EPG, 2018), 11.

Second, in a system that lacks a neutral and objective monetary anchor (as is currently the case), the external financial constraint is massively asymmetrical. The constraint exerted on economies and countries with external deficits to balance their accounts is much stronger than the incentive for surplus countries to reduce their savings surpluses. Of course, an appropriate symmetry of incentives is what we would expect the macroeconomic element of global regulation by the G20 (and the IMF) to do. But the asymmetry in the practical functioning of the monetary system (in the narrower sense) makes Mutual Assessment Process efforts partly ineffective.

Third, in a system of free movement of capital, dangerous currency bubbles may arise on account of floating exchange rates. The tangible experience of post-1973 fluctuations shows that market investors, operators, and participants are capable of pushing exchange rate relations to unsuspected extremes ex ante. In the 1970s and 1980s, dollar fluctuations in relation to European currencies ranged from 1 to 3 (the "Carter" dollar at the lowest point, the "Reagan" dollar at the highest). Since the creation of the euro, fluctuations in dollar-euro relations have been contained at about 1 to 2 (with the dollar at 0.83 at the lowest point, 1.59 at the highest). Such wide fluctuations with regard to one of the most important prices, which expresses a key economic and financial relationship between the world's two major advanced economies and all the economies associated with the two major international currencies, are incompatible with global financial stability in the long term.

In short, only very modest progress has been made in reforming the IMS. At best, one may notice that, during the 2007/08 turmoil, exchange rate relations between major convertible currencies displayed a remarkable degree of stability. One may have reasonably feared that foreign exchange markets themselves would suffer a strong shock, and that a currency crisis would be added to the financial crises. This was not the case.

In the medium and long term, the reform of the IMS, in the narrower sense of exchange rate relations, remains crucial. Three dimensions are worth considering: the creation of a new global currency; the broadening and strengthening of Special Drawing Rights (SDRs); and the improvement of the current handling of exchange rate relations between major convertible currencies—namely, improvement of the legacy of the G7.

CREATION OF A GLOBAL CURRENCY

As Keynes suggested in 1944, a truly international reserve currency issued by a global body with worldwide membership could theoretically provide real symmetry in external adjustments. It would also allow us—at least theoretically—to counter the Triffin critique,

provided that the global currency's issuing body takes care to meet the increased demand for foreign exchange reserves by avoiding excessive growth and a liquidity deficit, while equitably redistributing the seigniorage associated with the currency issue.

Unfortunately, what may be desirable in theory is not necessarily applicable in practice. Implementing a genuinely global currency that acts as the anchor of the IMS is dependent on meeting certain economic, political, and politico-strategic conditions, which not only are currently nonexistent but will be difficult to meet in the future. One therefore wonders whether it is possible to imagine more realistic progress toward improved global monetary and financial stability.

STRENGTHENING SPECIAL DRAWING RIGHTS

SDRs are an international reserve asset created in 1969 by the IMF to complement the official foreign exchange reserves of member countries. The SDR is not a currency. Nor does it, strictly speaking, amount to a claim on the IMF. But it is, in theory, an instrument that allows for creating foreign exchange reserves in the event that domestic monetary policy constraints on the reserve currency—the dollar at the time—are incompatible with the creation of liquidity required for international economic and trade growth. In this respect, the SDR was created to mitigate the adverse effects of the Triffin dilemma.

Although it is not a currency but a basket of currencies, the SDR is, in many respects, a useful instrument for reforming the IMS. In particular, it includes three features that are worth highlighting: as a reserve asset, it is the only instrument that may be issued without being associated with a debt directly attributable to an economy; as a store of value, its aim is to represent a stable global monetary entity better than any floating national currency; and as a unit of account, the SDR has the potential benefits of lower volatility of its value and hence potentially lower costs of foreign exchange hedging. It may present compelling theoretical advantages as an international billing currency and as a reporting currency, on commodity markets for instance.

For a reform of the IMS based on the promotion of the SDR, progress would need to be made in both "official" and "private" arenas. For the "official" SDR, the most promising routes are the following four: make greater use of the SDR; facilitate the diversification of foreign exchange reserves, particularly through the creation of a substitution account allowing for the conversion of the foreign exchange reserves of the various countries into SDRs; make holding SDRs more attractive, including through their remuneration; and finally, ensure at all times that the SDR basket composition accurately reflects the relative importance of the various economies in international trade and financial transactions.

In the case of "private" SDRs, a necessary, if not sufficient, condition for their development would be to design a genuine private market for the SDR, deep and liquid enough to have certain features of the instruments denominated in major international currencies. In view of the starting point—a nonexistent private market—such a goal calls for a huge effort. In particular, the international community would need to develop a multilateral clearing system—designed, for instance, along the lines of the clearing model that the BIS managed in the past with respect to the privately traded European currency unit (ECU). Another important aspect for the credibility of the private SDR is the negative impact of periodic revisions of the SDR basket. This pegging to a basket of currencies is the main drawback of the SDR. In order to mitigate this drawback, there would need to be full transparency with regard to the basket revision schedule.

In short, although the best theoretical solution for IMS reform remains the creation of a global currency, strengthening the use of the SDR presents itself as a second possible dimension of reform, albeit a similarly challenging one. The main issue is that even if the SDR comes close to being a "good" currency given two of its features (unit of account, store of value), it is still nonetheless a basket of currencies, whose nature changes over time. It was a change of this kind that made the key difference in Europe between the ECU as a "basket" in the 1990s and the euro as a "real currency" after 1999, with the latter immediately climbing to second place among major convertible currencies, far ahead of the third-place yen.

The SDR should not, for that matter, be dismissed as part of a long-term perspective, for two further reasons. The inclusion of the renminbi gives the SDR the status of a truly global instrument, no longer one that represents advanced economies alone: the relative credibility of this reserve instrument will thus be enhanced in due course.

It is also worth considering an important phenomenon that I have described as "conceptual convergence," which characterized the central bank community during the crisis. This alignment between the positions of the various central banks expresses itself in many areas: for example, in the area of banking supervision—now almost unanimously considered to be something that central banks can and must legitimately exercise—or in the area of preventing systemic financial risks, in which most countries believe that central banks have an important role to play, in particular through the design of macroprudentials. But the most remarkable of alignments involves the convergence of large central banks with regard to the definition of price stability. All central banks issuing SDR basket currencies—except for the People's Bank of China—have followed the same definition of price stability—namely 2 percent in a medium-term perspective—since the Federal Reserve's decision in 2012 and that of the Bank of

Japan in 2013, following earlier choices by the European Central Bank and the Bank of England. In my view, this is a phenomenon of great importance. For the SDR, the fact that four out of the five currencies in the basket now have the same nominal price stability target adds an additional element of credibility to this instrument, both as an instrument to retain value and as an instrument of account at the global level.

IMPROVING THE MANAGEMENT OF EXCHANGE RATE RELATIONS BETWEEN MAJOR CONVERTIBLE CURRENCIES

The most modest means to improve the functioning of the IMS would be to improve the management of floating exchange rate relations, as has been carried out among the G5 and then the G7 governors and finance ministers of countries issuing major convertible currencies—including more recently informal discussions with China—since the dismantling of the Bretton Woods fixed exchange rate system after 1973.

These regular informal meetings are often deemed by analysts to have no real bearing on exchange rates. This is not my understanding. When currency trends in foreign exchange markets have been deemed worthy of a clear and simple message sent by all G5 and G7 members to market participants and investors, this message has been received and understood, and has influenced foreign exchange relations. This pattern was observed in particular after the 1985 Plaza Accord, whose message was that the dollar's decline in relation to other currencies was desirable; after the Louvre Accord in 1987, whose message was that the dollar's decline had been adequate and that exchange rates were appropriate "around current levels"; after the April 1995 agreements, the message being that any further decline in the dollar would not be in line with the economic fundamentals of the countries concerned; and finally, after the September 2000 agreements, whose symmetrical message was that any further drop in the euro would not be in line with the relative economic conditions in the euro area and the United States.

A glimpse of exchange rate relations between major currencies since 1973 may be summarized as follows: free floating is the rule, whereby exchange rates are determined by the decentralized decisions of all market investors and participants. However, this free floating may be tempered by the possibility of G7 members' sending a signal to market participants when there is consensus among authorities (central banks and ministers) in assessing that the system's cohesion is at risk of being seriously challenged by spontaneous behavior that goes far beyond what seems reasonable in light of the fundamentals and policies of the countries concerned.

Four conditions need to be met for markets to be significantly influenced by the messages sent out by authorities:

- The message must be simple and clear, ideally along the lines of "no further increase (or no further decrease) of a given currency in relation to others."
- The economic and monetary fundamentals, and the policies pursued by authorities must be in line with the recommendations of the message—market operators can be persuaded only if the message is not contradicted by economic reality or by authorities' economic and monetary policy decisions.
- Authorities themselves must take a financial risk, even if modest, by intervening on foreign exchange markets, in order to give the signal credibility.
- And finally, it is key for G7 members to be clearly unanimous in conveying the message, so that no market participant may conclude that any one of the partners is simply paying lip service to the agreement without effectively backing it.

Since these conditions are only exceptionally met, the international community very rarely decides to suggest a relative containment of exchange rate relations to the market. Great freedom of action among market operators is therefore the rule at almost all times. The exchange rate system seems to be characterized by "tempered freedom": very large freedom most of the time, tempered only by the need to ensure the cohesion of the whole. This is one very important example of a larger principle. When sovereign countries are called upon to manage their economies in the context of strong interdependencies within a larger economic and financial entity—whether an integrated continental economy or a globalized world economy—cohesion and prosperity may require the relative "containment" of everyone's freedom of management. I wish to offer three emerging examples of economic and financial governance that are or should be inspired by this concept of "tempered freedom."

First among them is the coordination of macroeconomic policies between systemically important economies (the G20 Mutual Assessment Process). In the context of the freedom of management of sovereign countries, it is a question of containing possible excessive internal and external national imbalances, especially, but not exclusively, in the field of current account deficits and surpluses, when these challenge the stability of the global economy.

Second is the informal consultation prompting the definition of prudential regulations and financial standards and codes, tempered at the global level especially within the framework of the Basel Committee, the Financial Stability Board, and the G20. This consultation—referred to above as an important element of the G20's new responsibility—seeks to preserve global systemic financial stability by containing certain key ratios within value "ranges"

believed to preserve the cohesion of the whole, for instance capital requirements and liquidity ratios in the case of banks.

Finally, the fiscal and economic governance of Europe and the euro area offers two further examples of "tempered freedom" in view of the need to ensure the cohesion of the whole. In this way, the members of the Economic and Monetary Union have agreed on a Stability and Growth Pact that allows them a great deal of freedom to conduct their fiscal policies, provided they do not cross certain limits considered to be detrimental to the stability and cohesion of the union as a whole. The same goes for economic policy aspects that would be considered excessive in the context of the recent new European Macroeconomic Imbalance Procedure: the European Commission and the Eurogroup reserve the right to make recommendations, of a binding nature if necessary, to temper the conduct of economic policy—but only if the stability of the entire union appears to be called into question.

Let us return to possible improvements in the practical functioning of the IMS, with regard to the practical management of exchange rate relations in the context of the G7 (or new, de facto, G5—dollar, euro, pound sterling, renminbi, yen). A simple albeit bold idea today would be for the main convertible currencies and members of the SDR basket to disclose the bilateral central rates considered to be reasonable equilibrium rates in a medium-term perspective. Such a disclosure would not involve returning to a fixed exchange rate system—free floating would remain the rule. Nor would there be bands of fluctuation fixed a priori, and the "containment" signals suggested to market participants would be based, as they currently are, on the consensus of the governments and the central banks issuing the participating currencies. But in the eyes of market participants, the public disclosure of the medium-term bilateral equilibrium rates calculated by the IMF and accepted by the authorities of the currencies concerned could play a significant role in systemic stabilization and would, in my view, offer a convincing—and perhaps effective—illustration of the concept of "tempered freedom." This would be the case even if the suggested containment could be triggered not mechanically or automatically, but on the basis of a shared convergence of views.

A further argument in favor of disclosing the central rate relates to the recent "conceptual convergence" between central banks mentioned earlier. Since the central banks have very similar definitions of price stability in the medium term—and since they are mindful of the necessity of solidly anchoring their inflation expectations in a medium- and long-term perspective—the display of their equilibrium bilateral central rates in the medium term would be significantly more credible than the current practice.

Finally, the inclusion of the renminbi, which is now a member of the SDR basket, in the informal consultation between the world's major currencies introduces an additional

factor in the improvement of the management of global exchange rates. It introduces greater inclusiveness, even if the status of the renminbi remains incomplete as long as the Chinese currency is not freely convertible.

CONCLUSION

To summarize, the international community is in midstream with regard to the international monetary and financial system. Drawing lessons from the 2007/08 crisis, it has made some progress, albeit limited, in seeking coordination on the macroeconomic policy front, and it has made real headway in developing financial prudential regulations, standards, codes, and principles at the global level. Countries with systemic influence—including emerging economies, not just advanced economies, as was the case before the economic and financial crisis—are now fully exerting their role as part of this global governance. But progress remains insufficient and there is no room for complacency.

We have worldwide awareness that the lessons of the worst financial crisis since World War II demand an inclusive and systemic approach to the economy and to global finance. It is a question of gradually building a new concept of international cooperation for a world that is more multipolar and more decentralized in its decisions, as well as more interconnected. Many reforms should be resolutely implemented, as recommended by the report of the EPG.

As regards, more specifically, the management of exchange rate relations between major convertible—or soon to be convertible—currencies, the international community should also concentrate its reflection more on "tempered freedom" in view of ensuring the cohesion of the whole system.

I see three additional reasons to call for such reflection:

First, the recent "conceptual convergence" observed between the central banks of advanced economies, as expressed in the area of inflation in particular, with a common definition of price stability at around 2 percent in a medium- and long-term perspective, may facilitate possible progress.

Second, equally important is the emergence of the renminbi (and later other major currencies of emerging economies), whose integration into the SDR and into informal consultation between major currencies should allow for fresh progress at the global level.

Finally, there is a clear understanding, shared by all central banks, that while cyclical exchange rate fluctuations are useful and legitimate within certain limits, the systematic pursuit of a competitive advantage based on the greatest possible depreciation of one's currency on foreign exchange markets would be contrary to everyone's interest, and to the cohesion of the global economic system as a whole. Rejection of the beggar-thy-neighbor policy is among the great lessons of the crisis of 1929–30.

THE INTERNATIONAL MONETARY SYSTEM AND ITS CHALLENGES FOR EMERGING-MARKET CENTRAL BANKS

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The international financial system has changed significantly since the days of the Bretton Woods Agreement; some of its core elements, however, have remained intact since then. In the last 50 years, for instance, the role of gold has declined dramatically, but the roles of the US dollar and, to a much lesser extent, some of the other reserve currencies in international trade and finance, have strengthened. The main difference between the current system and the Bretton Woods system, in addition to the present widespread use of flexible exchange rates, is the much bigger role that private capital flows play nowadays. This role keeps changing: Not only the size but also the composition of private capital flows is different now from what it was only 10 years ago. The role of banks has decreased, and their former role has been adopted by asset managers, while an increasing number of companies borrow directly from global financial markets.

In this environment, the challenge for the central banks of emerging-market economies (EMEs) is to preserve price and financial stability by addressing both global financial risks and domestic challenges, such as weak institutions, shallow financial markets, unstable inflation expectations, and in some cases, dollarization of (or predominance of other foreign currencies in) savings. The central banks have responded to these challenges by switching to the monetary policy regime of flexible inflation

targeting augmented by extra financial stability tools. Such tools include employing foreign exchange (FX) reserves to provide FX liquidity (loans) or hedging instruments to the market, active use of macroprudential instruments, and in some cases, capital flow management tools. This paper focuses on these challenges for emerging-market central banks and their responses. It also discusses potential scenarios of the system's evolution, including potential changes in the role of the Bretton Woods institutions, from the point of view of improving financial stability and creating better conditions for economic growth and long-term investments.

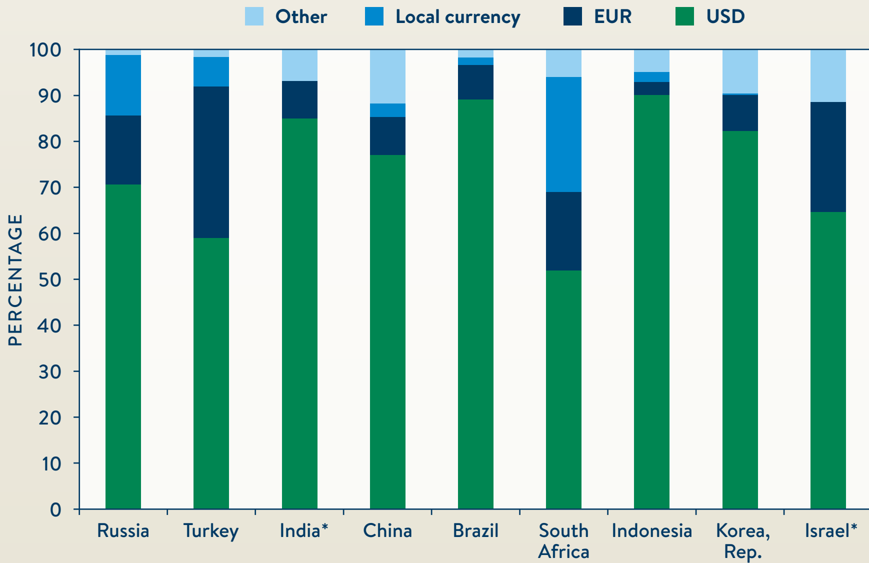
MAIN CHARACTERISTICS OF THE INTERNATIONAL MONETARY SYSTEM AND THEIR CONSEQUENCES FOR CENTRAL BANK POLICIES

Today's international monetary system has retained the central role of the US dollar, and to a lesser extent some other reserve currencies, as international payment and finance currency. In combination with other characteristics of the current international monetary and trade system—such as massive capital flows and value chains—this dollarization results in new challenges for the central banks as the main institutions responsible for their respective countries' price and, more generally, macroeconomic and financial stability. While many emerging-market central banks now use the inflation-targeting monetary policy regime with a floating exchange rate, they cannot concentrate only on domestic factors when designing a monetary policy; effectively, they must perform the role of lender of last resort, not only in domestic but also in reserve currencies.

Most prices in international trade are denominated in US dollars; other currencies are used only occasionally (Figure 1). When export prices are denominated in dollars or another dominant currency, depreciations do not affect the demand for exports. Therefore, the exchange rate elasticity of exports is low and most economic adjustments occur through imports.[1] Also, in an era of production chains, it is imports of consumption goods, or of components for goods and services produced for domestic consumption, that account for most of the adjustments. This rule may not hold completely in the case of massive depreciations, because in those cases producers

1 Patrice Ollivaud and Cyrille Schwellnus, "The Post-crisis Narrowing of International Imbalances: Cyclical or Durable?"(OECD Economics Department Working Papers, No. 1062, Organisation for Economic Co-operation and Development, Paris, June 2013); Swarnali Ahmed, Maximiliano Andres Appendino, and Michele Ruta, "Depreciations without Exports? Global Value Chains and the Exchange Rate Elasticity of Exports" (Policy Research Working Paper 7390, World Bank, New York, August 2015); Daniel Leigh, Weicheng Lian, Marcos Poplawski-Ribeiro, Rachel Szymanski, Viktor Tsyrennikov, and Hong Yang, "Exchange Rates and Trade: A Disconnect?" (IMF Working Paper WP/17/58, International Monetary Fund, Washington, DC, March 2017).

FIGURE 1.
BREAKDOWN OF FOREIGN TRADE BY SETTLEMENT CURRENCY



Russia—data for Q1 2018 overall trade; Turkey—data for 2015 imports; India—average for Q4 2013 exports and imports; China—average for 2010 manufacturing exports and imports; Brazil—average for 2011 exports and imports; South Africa—data for 2003 exports; Indonesia—average for 2010 exports and imports; Korea—data for 2007 overall trade; Israel—data for 2004 exports.

SOURCE: Data from World Bank website (https://data.worldbank.org/) and countries' respective central bank websites (www.cbr.ru; www.tcmb.gov.tr; www.rbi.org.in; www.pbc.gov.cn; www.bcb.gov.br; www.resbank.co.za; www.bi.go.id; www.bok.or.kr; www.boi.org.il), accessed May 9, 2019.

* Local currency data are not available; therefore, transactions in local currency are included in the "Other" category.

EUR = euro; USD = US dollar.

are often willing to provide discounts to buyers of their goods in order to increase demand, and thus the exchange rate elasticity of exports increases.[2] Still, EMEs react to external shocks in a manner different from that predicted by the Mundell-Fleming model.

In practice, this means that traditional price indexes, such as the headline consumer price index or the core inflation index, are not the best policy targets for the emerging-market central bank. Theoretical literature suggests that in a dominant-currency

2 There is evidence of such behavior on the part of Russian exporting firms in 2015, after the depreciation of the ruble in 2014.

world, central banks should target the prices of goods produced domestically because under such circumstances, inflation gaps and output gaps do not close simultaneously.[3] Neither headline nor core inflation indexes satisfy this criterion, because both of them can include prices of foreign-produced goods. Some emerging-market central banks seem to experiment with indexes constructed along the lines of recommendations taken from the theoretical literature. The notable example is the IPCA ("Broad Consumer Price Index") in Brazil, chosen by the National Monetary Council as a reference for its inflation-targeting regime, implemented in June 1999. This index has a lesser share of tradable goods and is therefore less subject to exchange rate fluctuations than the traditional IGP-DI ("General Price Index—Domestic Availability"), which combines both wholesale and retail prices, and has represented the country's official inflation measure for decades.[4] Most of the emerging countries' central banks use traditional consumer price indexes. Their monetary policy rule usually envisages a limited reaction to the primary effects of exchange rate fluctuations on inflation, but a more pronounced reaction to the secondary effects. However, whether such a rule can actually be implemented depends on the central bank's credibility and the stability of its inflation expectations.

The second relevant characteristic of the international monetary system today is the increasingly significant role of private international financial flows, often denominated in US dollars, and as a consequence, the heavy influence of US monetary policy on the policies of other central banks, despite the widespread use of floating exchange rate regimes. The nature of capital flows in the last 10 years has changed somewhat: the importance of banks has decreased, and the role of asset managers has become more prominent. But this trend has not challenged, and may have even strengthened the role of the US dollar in international financial flows (figure 2), possibly even increasing the spillovers from US monetary policy.

Several strands of academic literature are studying the nature of capital flows and their impact on monetary policy, trying to explain why most of the capital flows are still denominated in US dollars

3 Linda S. Goldberg and Cedric Tille, "Vehicle Currency Use in International Trade," *Journal of International Economics* 76, no. 2 (2008): 177–92; Gita Gopinath, "The International Price System," in *Jackson Hole Symposium, Volume 27* (Kansas City, MO: Federal Reserve Bank of Kansas City, 2015), 71–150; Gita Gopinath, Emine Boz, Camila Casas, Federico J. Díez, Pierre-Olivier Gourinchas, and Mikkel Plagborg-Møller, "Dominant Currency Paradigm" (NBER Working Paper No. 22943, National Bureau of Economic Research, Cambridge, MA, December 2016, revised September 2017).

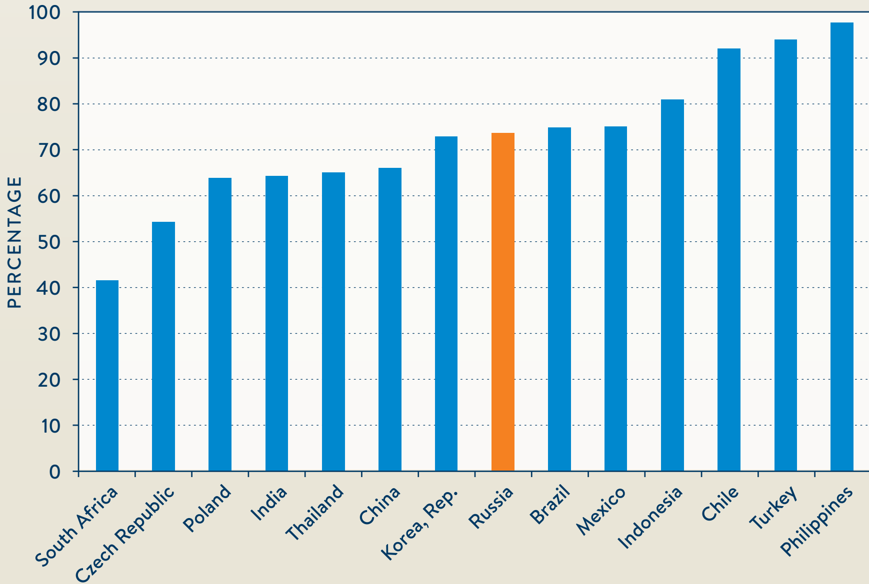
4 Central Bank of Brazil, "Price Indices in Brazil: Information up to March 2016" (Frequently Asked Questions Series, Brasília: Central Bank of Brazil, 2016).

and only a few other reserve currencies.[5] The practical takeaway from this literature for emerging-market central banks is that even under a floating exchange rate regime, they have to take into serious consideration the policies of the US Federal Reserve and the central banks that regulate other reserve currencies; that is, they must base their monetary policies not only on domestic economic trends but also on predictions for future US monetary policy, its influence on global financial markets, and ultimately, the repercussions of that influence for the domestic economy and inflation.

The practical consequences of capital flows' being not only large and volatile, but also denominated in FX, go beyond monetary policy. Despite switching to a floating exchange rate regime, many emerging-market central banks have to use FX operations as a tool to help stabilize the market under stress. The exact instruments used for such purposes can vary significantly, depending on the cause of the financial stability concerns. Traditional spot market interventions are still widely used. However, some central banks, such as the Brazilian one, intervene not on the spot market but on the cross-currency swap market to provide hedges to companies and banks. It is also common to perform operations on overnight FX swap or repo markets to provide FX liquidity. The Bank of Russia used FX repo operations quite intensively in 2014/15 and still occasionally provides short-term FX liquidity in the overnight swap market.

5 (1) As far as dollar dominance is concerned, a number of articles argue that it can result from the inclination of dominant countries' investors to provide risky finance to developing countries' companies while at the same time hedging their currency risks by providing the funding in US dollars or other dominant currencies. (2) The size and direction of the flows is a concern of the famous "global saving glut" theory developed by Bernanke, the strand of literature on the role of the United States as a global safe assets provider, and so on. Ben S. Bernanke, "The Global Saving Glut and the US Current Account Deficit" (Remarks by Governor Ben S. Bernanke at the Sandridge Lecture, Virginia Association of Economists, Richmond, VA, March 10, 2005), https://www.federalreserve.gov/boarddocs/speeches/2005/200503102/default.htm; Ricardo J. Caballero, Emmanuel Farhi, and Pierre-Olivier Gourinchas, "An Equilibrium Model of 'Global Imbalances' and Low Interest Rates," *American Economic Review* 98, no. 1 (2008), 358–93; Pierre-Olivier Gourinchas and Hélène Rey, "External Adjustment, Global Imbalances, Valuation Effects," in *Handbook of International Economics*, vol. 4, edited by Gita Gopinath, Elhanan Helpman, and Kenneth Rogoff (Amsterdam: Elsevier, 2014), 585–645. (3) Consequences for monetary policy in countries other than the United States are the main concern of the "dilemma versus trilemma" discussion. Hélène Rey, "Dilemma Not Trilemma: The Global Financial Cycle and Monetary Policy Independence" (NBER Working Paper No. 21162, National Bureau of Economic Research, Cambridge, MA, May 2015, revised February 2018). (4) On the other hand, the monetary policy spillovers literature argues that the Fed should take spillovers into consideration when making monetary policy decisions. John B. Taylor, "International Monetary Policy Coordination: Past, Present, and Future" (BIS Working Papers, No. 437, Bank for International Settlements, Basel, Switzerland, December 2013); Qianying Chen, Marco Jacopo Lombardi, Alex Ross, and Feng Zhu, "Global Impact of US and Euro Area Unconventional Monetary Policies: A Comparison" (BIS Working Papers, No. 610, Bank for International Settlements, Basel, Switzerland, February 2017); Raghuram Rajan, "Competitive Monetary Easing: Is It Yesterday Once More?," *Macroeconomics and Finance in Emerging Market Economies* 8, no. 1–2 (2015): 5–16.

FIGURE 2.
SHARE OF FOREIGN CURRENCY–DENOMINATED DEBT IN GROSS EXTERNAL DEBT POSITION OF SELECTED COUNTRIES
Average over Q1 2017–Q1 2018 sample

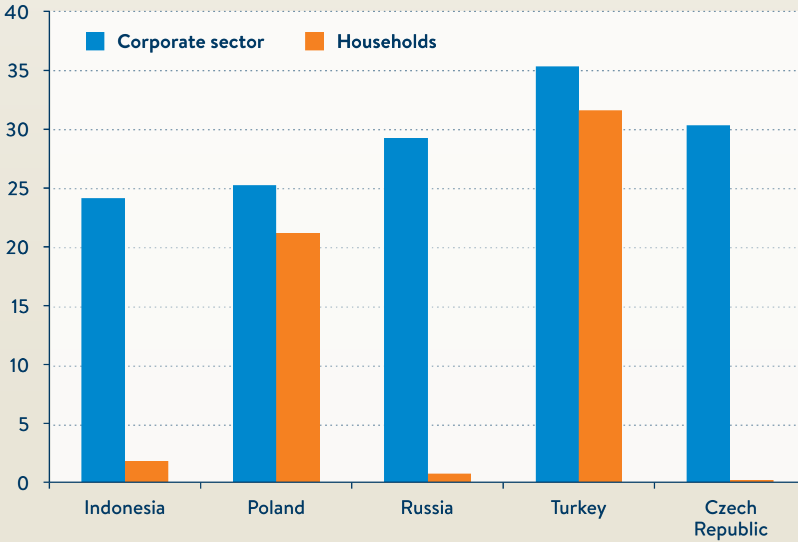


SOURCE: Data from World Bank DataBank (https://databank.worldbank.org/data/embed-int/Table-2-SDDS-new/id/7857d781), accessed May 9, 2019.

To decrease the financial stability risks related to capital flows, emerging-market central banks and governments make efforts to develop local-currency sovereign debt markets. Such measures allow for partial transfer of currency risks to investors. They do not enable a complete mitigation of capital flows' effect on FX volatility, though, because of the hedging strategy of investors, who either hedge their local-currency bond holdings from the beginning or react to shock by buying FX to hedge their unhedged positions. Despite this limitation, development of a local-currency bond market helps to decrease FX risks for borrowers.

Although sovereign local-currency debt markets have been growing in the last 10–20 years, companies' debt is still mostly denominated in FX, due to preferences not only of investors but of borrowers as well. The accounts of many companies, particularly of those that are internationally active, are denominated in US dollars or other dominant currencies (Figure 3). This situation seems to be common not only in emerging-market countries but also in Europe.

FIGURE 3.
SHARE OF FOREIGN CURRENCY–DENOMINATED LOANS



SOURCE: Data from countries' respective central bank websites (www.bi.go.id; www.nbp.pl; www.cbr.ru; www.tcmb.gov.tr; www.cnb.cz), accessed May 9, 2019.

Since prices for goods traded on international markets are denominated in US dollars, exporters consider dollar funding not to be risky, viewing it as a natural hedge. However, this phenomenon is not limited to exporters; it can be observed in most large companies and banks, which depend on reserve currency funding.[6] The link between the financial system and the dollarization of company debt and accounts goes both ways. Companies deposit borrowed funds into accounts in local banks. On the other hand, banks that borrow in FX prefer lending in FX to domestic borrowers as well. While such policies may decrease currency risks for individual banks and companies, they may increase the volatility of the overall FX market. For example, the effect of terms-of-trade shocks on the exchange rate can be amplified if exporting companies need further adjustment of the exchange rate to be able to service their debt. As a result, a high share of FX debt, even in the exporting sector, can result in significant financial stability risks and output volatility.

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6 Antoine Berthou, Guillaume Horny, and Jean-Stéphane Mésonnier, "Dollar Funding and Firm-Level Exports" (Banque de France Working Paper No. 666, Bank of France, Paris, March 1, 2018), http://dx.doi.org/10.2139/ssrn.3135724.

The foregoing is why some central banks and governments of emerging economies occasionally make special efforts to stimulate dedollarization of the financial system and overall economy. Limits on open FX positions of banks are very common. In Russia, in order to stimulate banks to decrease the proportion of FX-denominated loans, we use higher risk weights for FX lending to domestic companies, particularly to nonexporters. Indonesia has introduced a set of FX liquidity requirements directly for companies. Peru, Russia, Turkey, and a number of other countries have introduced differentiated reserve requirements, providing incentives for banks to fund in the domestic currency. In addition to such measures, traditional capital controls or capital flow management measures are still used in a number of emerging markets.

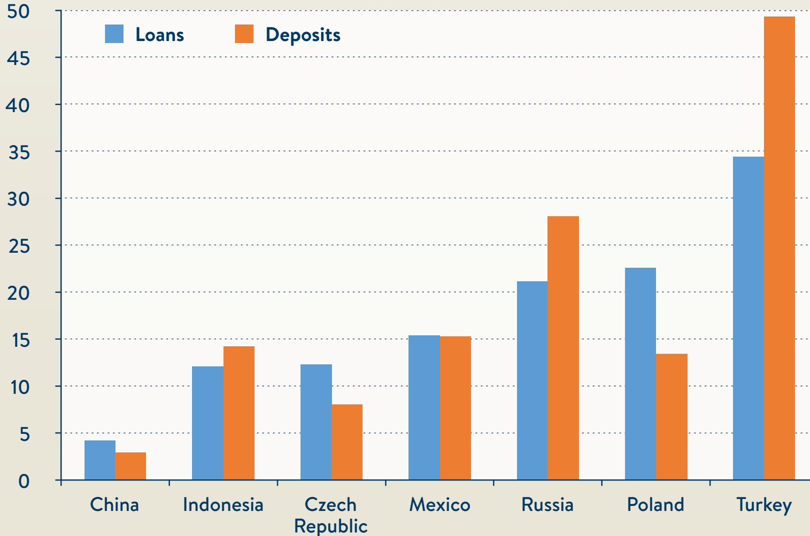
Successful anti-inflation policies and inflation targeting have made dollarization of domestic savings a less important problem for some emerging markets (Figure 4). However, it is still an issue for a number of countries, where inflation is or recently has been relatively high and unstable. Russia, most Eurasian Economic Union countries, Turkey, and some Latin American countries are notable examples. Currency substitution is usually a result of entrenched high inflation combined with expectations of high and unstable inflation.[7] The obvious long-term solution to this situation is to build up the credibility of monetary policy as well as to decrease and anchor inflation expectations by conducting monetary policy consistent with a monetary policy target.[8] But this process is neither simple nor fast, and countries may remain highly vulnerable to financial stability shocks during such transitions. Central banks of countries suffering from this problem often have to react to external shocks by conducting a procyclical monetary policy in order to stabilize domestic demand for national currency– and local currency–denominated assets. They also tend to conduct FX interventions for financial stability purposes more often. Capital controls are also commonly introduced, though usually they are not very effective because they lead to a fast development of the black FX market.

Among the new features of the international monetary system that so far have had only limited consequences, if any, for monetary policy and financial stability is the development of digital financial technologies in general and crypto assets in particular. One of the consequences

7 Early literature on this topic includes Guillermo A. Calvo and Carlos Vegh, "Currency Substitution in Developing Countries: An Introduction" (Working Paper No. 92/40, International Monetary Fund, Washington, DC, May 1992); and Carlos Alfredo Rodriguez, "Money and Credit under Currency Substitution," *IMF Staff Papers* 40, no. 2 (1993): 414–26.

8 Credible monetary and fiscal policies, along with sufficient deepening of domestic financial markets and implementation of sound macroprudential policies, seem to be prerequisites for the reduction of emerging markets' dependence on the monetary policies and financial cycles of the dominant-currency countries.

FIGURE 4.
SHARE OF FOREIGN CURRENCY–DENOMINATED DEPOSITS AND LOANS



SOURCE: Data from countries' respective central bank websites (www.pbc.gov.cn; www.bi.go.id; www.cnb.cz; www.banxico.org.mx; www.cbr.ru; www.nbp.pl; www.tcmb.gov.tr), accessed May 9, 2019.

of this process is the growing importance of operational and cyber risks to financial stability. The share of crypto assets in global finance is quite small (less than 1 percent).[9] So far, their main use has mostly been limited to such activities as money laundering, overcoming capital controls, and speculation. Bank for International Settlements research[10] suggests that crypto assets lack some of the important features of fiat money. Technological experiments of various central banks have also demonstrated that financial technology is still considerably less efficient than traditional financial tools. Therefore, in the near future the share of such assets will probably remain small and their effect on financial stability limited. If private crypto assets develop further, the impact on central banks' policies will be similar to that of any other form of currency substitution or growth of the market for assets denominated in foreign currencies. However, the

9 Based on coinmarketcap.com data, as of August 14, 2018, the cryptocurrency market cap stood at US$192 billion. This is in contrast to the global debt of around US$250 trillion and the stock market cap of around US$100 trillion.

10 See, for example, Claudio Borio, "On Money, Debt, Trust and Central Banking" (BIS Working Papers, No. 763, Bank for International Settlements, Basel, Switzerland, 2019).

situation will be even more complicated because there is no lender of last resort for such assets.

CAN THE INTERNATIONAL MONETARY SYSTEM BE IMPROVED? ECONOMICS VERSUS POLITICAL ECONOMY

To sum up, the current state of the international monetary system influences the policies of EMEs' central banks in a variety of ways. Mainly, despite switching to floating exchange rates and inflation targeting, the monetary policies of emerging countries' central banks should take into account those of the US Federal Reserve and some other central banks that issue other reserve currencies. They also need to have a significant buffer of FX reserves to be able to perform the role of lender of last resort, not only in local currency but also in FX. Moreover, the instruments used by these central banks should allow for channeling FX liquidity not only to the financial system but, through it, to the corporate sector as well, whose FX borrowing directly from global financial markets has increased in the last few years.

Reserve accumulation of emerging markets' central banks improves the financial stability of specific countries but may increase the instability of the overall system. Reserve accumulation increases demand for safe assets, usually denominated in US dollars, thus exacerbating the global saving glut and leading to lower interest rates on safe assets, higher incidence of the zero lower bound problem for dominant currencies, increased global financial market volatility, and the increased probability of a financial crisis.[11]

The international monetary system can be improved in several ways in order to make the overall global financial system more stable, decrease pressure on the emerging markets' central banks as providers of FX liquidity to their countries' financial markets, and eventually create a better environment for economic growth and particularly for long-term investment. These solutions, however, can be difficult to implement in full, either because implementation would take significant time or due to a number of political and economic barriers to their implementation.

One of the solutions is a more active use of reserve currencies other than the US dollar. The first half of the 20th century contained periods when use of reserve currencies was more diversified than nowadays. However, that was also the time of the gold standard, when the ultimate role of reserves was still played by a single asset—gold. So it is not fully

11 Ricardo J. Caballero, "Risk-centric Macroeconomics and Safe Asset Shortages in the Global Economy: An Illustration of Mechanisms and Policies" (Massachusetts Institute of Technology Department of Economics and National Bureau of Economic Research, Cambridge, MA, September 2018), http://dx.doi.org/10.2139/ssrn.3253064.

clear now how a global financial system with several reserve currencies of comparable importance can function in a globalized world. Some authors have suggested that such an arrangement would not be sustainable and would result in a fast transition to a new dominant global currency.[12] It is possible, though, that diversification of reserve currencies will be sustainable, but this change will also be accompanied by a more regionalized global trade and financial system. In any case, for other reserve currencies, such as the euro and especially the renminbi, to play a bigger role as reserve currencies, their financial systems should be strengthened and the availability of safe assets denominated in them increased. In the case of China, further liberalization of policies on capital accounts may be required. In any case, changes along these lines require time and depend not only on political decisions but also on market decisions. It should be noted, though, that in the last few years the United States has started to use access to its financial infrastructure as a foreign policy tool, and so the search for ways to increase the use of other reserve currencies has intensified.

The second potential (but not necessarily feasible) solution is to increase the role of the Fed as a central bank that issues the global reserve currency and therefore should have a global vision for designing and conducting its policy as well as the way it uses its financial stability instruments. In practice, the Fed has had to change its policy along these lines to provide for a case of potentially severe spillbacks to the American economy and financial market. In 2008, it had to use swaps with a number of both advanced and emerging markets' central banks to stabilize the global financial markets. In the last five years, the pressure has intensified on the United States' and other advanced countries' central banks to coordinate their monetary policies with other countries' central banks and take the potential spillovers of their own policies into consideration.[13] The Fed has responded by fine-tuning its communications with both financial markets and other central banks. However, when it comes to policy making, neither current nor former Fed officials have found it necessary to account for the spillovers from their policies, unless they entail spillbacks.[14] In the era of globalized (even if fragmented) financial markets and economic interdependence, such

12 Gita Gopinath and Jeremy C. Stein, "Banking, Trade, and the Making of a Dominant Currency" (NBER Working Paper No. 24485, National Bureau of Economic Research, Cambridge, MA, 2018).

13 Rajan, "Competitive Monetary Easing."

14 Ben S. Bernanke, "US Monetary Policy and International Implications" (Speech at "Challenges of the Global Financial System: Risks and Governance under Evolving Globalization," high-level seminar sponsored by Bank of Japan and International Monetary Fund, Tokyo, October 2012); Stanley Fischer, "The Federal Reserve and the Global Economy" (Speech at Per Jacobsson Foundation Lecture, 2014 Annual Meetings of International Monetary Fund and World Bank Group, Washington, DC, October 2014).

spillbacks may become more common, so the Fed will, effectively, have to take spillovers into consideration. One example of the Fed's reaction to spillbacks is the events of late 2018 to early 2019, when market worries about a possible slowdown of the global economy led to changes in the Fed's policy and communications.

A solution that would be more feasible in the short run is further strengthening of the global financial architecture in order to improve the availability of FX liquidity instruments for the EME central banks. The demand for reserves will be lower if the central banks have access to FX liquidity to borrow in case of an emergency or have the equivalent of insurance against FX liquidity stress. Both the International Monetary Fund (IMF) and the central banks of emerging markets themselves have taken steps in this direction in the last few years. The IMF has increased the number of credit lines with low conditionality (its Flexible Credit Line and Precautionary and Liquidity Line), which the central banks of countries with ex ante strong fundamentals can use as a source of FX liquidity in the case of massive capital outflows.

In addition, there are several initiatives for establishing shared reserve pools for emerging markets' central banks, which should allow central banks to borrow reserves from each other. A good example is the Contingent Reserve Arrangement (CRA) initiative of the central banks of the BRICS countries (Brazil, Russia, India, China, and South Africa). The CRA is a US$100 billion reserve pool arrangement. Each country commits to lend to others a certain amount of reserves, which sum up to US$100 billion. In exchange, each country can borrow from others a certain amount of reserves (not necessarily the same amount committed). There is a delinked part of this amount that member countries provide without any IMF involvement, but a larger part of the borrowing is provided additionally to the IMF program.

Both the IMF liquidity provision programs and reserve pools similar to the CRA perform a role similar to that of contractual liquidity lines (CLLs), which the central banks of countries with a deficit of liquid market instruments may provide to domestic banks, according to Basel III. The main difference is the size of the liquidity line. In the case of the IMF instruments, the size of the credit line depends on the size of the quota, and in the case of the liquidity pools, it is predetermined by agreement between countries. In contrast to both of those, the size of the CLL depends on the size of potential outflows from a specific bank and the available liquid assets in the system. The size of the potential capital outflows from emerging markets, obviously, can have a weak correlation with the size of the IMF quota. Generally speaking, liquidity needs depend on gross rather than net flows, and they can be much higher than the current account and structural finance needs, which are the components for computing the IMF

quotas. Therefore, not only the stigma attached to the IMF resources—which may be needed if the IMF increases its role of lender of last resort for the central banks—but also their adequacy is a big question. The 15th IMF quota review has been stuck for several years. Also, over the last several years, the IMF has been struggling to increase the amount of resources available to it, largely because of the position of the United States and other developed countries. One of the ways forward may be to try to separate the resources needed for standard structural finance from those required for liquidity finance, and to create innovative programs to provide financing liquidity for the EMEs' central banks.

STRENGTHENING THE RULES-BASED INTERNATIONAL MONETARY SYSTEM

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At the end of the 1944 conference where the Bretton Woods Agreement was finalized, US Treasury Secretary Henry Morgenthau spoke for all 44 delegations when he proclaimed that the purpose of the agreement was to "do away with economic evils—competitive currency devaluations and destructive impediments to trade."[1] Despite tremendous progress and many accomplishments during the past 75 years, today we are again facing economic evils—some reminiscent of the past—and an entirely new global economy. This essay addresses the question, "In what ways must monetary policy cooperation and the role of central banking be reimaged to continue to provide an effective policy tool kit for the real economy?" To answer the question, I first consider how people addressed such problems 75 years ago, and I then show how we can adapt their strategy to our current challenges.[2]

1 Henry Morgenthau, "Closing Address to the Conference" (Speech given at United Nations Monetary and Financial Conference, Bretton Woods, NH, July 1944).

2 This essay draws on John B. Taylor, "Recreating the 1940s-Founded Institutions for Today's Global Economy" (Speech presented upon receiving the Truman Medal for Economic Policy, Kansas City, MO, October 2015) and John B. Taylor, *Reform of the International Monetary System: Why and How?* (Cambridge, MA: MIT Press, 2019).

THE PROBLEMS THE BRETTON WOODS SYSTEM WAS DESIGNED TO ADDRESS

Competitive devaluations and currency wars were a serious economic problem in the years leading up to World War II. The British devalued the pound in 1931 and thereby gained a competitive advantage, but the devaluation harmed other countries' exports and economies. Not to be left behind, other countries followed, including the United States, which devalued the dollar in 1934. Whether defensive or offensive, these "beggar-thy-neighbor" actions led to government restrictions and interventions in other countries. After trying such interventions, Italy, for example, devalued the lira by 40.93 percent in 1936, matching precisely the US devaluation of 1934.

Another serious international economic problem stemmed from extensive "exchange controls," in which importers of goods were forced to make payments to a government monopoly in foreign exchange. The government would determine what types of goods could be imported and how much to pay exporters. Exchange controls also involved multiple exchange rates, government licenses to export and import, and even officially conducted barter trade. Such practices deviated from the principles of economic freedom and caused all sorts of distortions and injustices.

To deal with these problems, the parties to the Bretton Woods Agreement developed a strategy: Each country would commit to two basic monetary rules, which would become the key foundation of the rules-based system.

First, countries would swear off competitive devaluations by agreeing that any exchange rate change of more than 10 percent from certain values, or *pegs*, would have to be approved by a newly created International Monetary Fund (IMF). As then Assistant Secretary of State Dean Acheson later explained in testimony to gain support from the US Congress, "The purpose of the fund is not to prevent any devaluation. It is to prevent competitive devaluation."[3] The agreement created what was called an *adjustable peg system*.

Second, countries agreed to remove their exchange controls, with a transition period because many had extensive controls in place. To be sure, the countries did not agree to remove *capital* controls, which include restrictions on making loans, buying or selling bonds, and making equity investments.

With these commitments, the IMF would provide financial assistance in the form of loans. Jacob Viner, professor at the Chicago School of Economics, explained the deal to the US Senate: "Other countries make commitments

3 "Statement of Hon. Dean Acheson, Assistant Secretary of State, Washington, D.C.," in *Bretton Woods Agreements Act: Hearings before the Committee on Banking and Currency, United States Senate* (Washington, DC: Government Printing Office, 1945), 26.

with respect to exchange stability and freedom of exchange markets from restrictive controls while we [the United States] in turn pledge financial aid to countries needing it to carry out these commitments." He argued that it was largely "an American blueprint for the postwar economic world.... It seems to me a magnificent blueprint."[4] Many other economists supported it, including Irving Fisher, Frank Knight, and Henry Simons.[5]

In important respects, the agreement succeeded. Exchange controls were removed, though it took more than a decade, and the currency wars ended, though the adjustable peg system itself fell apart in the 1970s, giving way to a flexible exchange rate system. The 1970s were difficult because monetary policy lost its rules-based footing, and both inflation and unemployment rose. But in the 1980s and 1990s, policy became more focused and rules-based, and economic performance improved greatly. Though the move was not part of the original agreement, virtually all the developed countries that signed it—and others, such as Germany and Japan—also abandoned capital controls. By the late 1990s, many emerging-market countries were adopting rules-based monetary policies, usually in the form of inflation targeting, and they thereby entered into a period of stability.

TODAY'S INTERNATIONAL MONETARY SYSTEM

Unfortunately, this benign situation did not hold, and the international monetary system now faces challenges eerily similar to those at the time of the creation of the IMF. In my view, the problem traces to a departure from rules-based monetary policies at both the national and international levels. These deviations have not only helped bring on and worsen the global financial crisis, but they were also a factor in the subpar recovery.

Quantitative easing (QE) started in earnest in 2009 in the United States. It was followed by a period in which the dollar was low relative to the yen, eventually leading to QE in Japan in 2013, which depreciated the yen, as was the expressed intent of the Bank of Japan. That was followed by QE in the eurozone in 2014, which depreciated the euro, as was the expressed intent of the European Central Bank.[6] The dollar-yen-euro story from 2009 to 2014 looks a lot like the pound-dollar-lira story from

4 "The Views of Jacob Viner, University of Chicago," in *Bretton Woods Agreements Act: Hearings before the Committee on Banking and Currency, United States Senate* (Washington, DC: Government Printing Office, 1945), 637–45.

5 See "Recommendations of Economists for United States Approval of the Bretton Woods Monetary Agreements," in *Bretton Woods Agreements Act: Hearings before the Committee on Banking and Currency, United States Senate* (Washington, DC: Government Printing Office, 1945) 460–65.

6 Taylor, *Reform of the International Monetary System*, traces the details of QE and exchange rates during this period.

1931 to 1936, even though US policy makers considered the exchange rate effect to be a by-product of their actions, not the direct intent. So QE begets QE, which begets QE, and so on.

Interest rate decisions at central banks around the world would also resemble currency wars during this period. Whether you ask them or watch them, you can tell when central bankers have followed each other. Extra-low interest rates in the United States were followed by extra-low interest rates in many other countries, in an effort to prevent sharp currency appreciations. There was a global spread and amplification of monetary policy deviations.

Capital also flows in response to interest rate differentials—even if attenuated by policy reactions. Capital first rushed into emerging markets and is now rushing out. The rush in was in the form of large borrowings in dollars by firms and governments of emerging-market countries, which now are causing problems as the dollar firms.

A host of government interventions and restrictions, especially in housing markets, have been used to prevent the low interest rates from causing bubbles. Macroprudential regulations, which have legitimate purposes, were also being used to counter the effects of the low interest rates. There's also been a revival of capital controls. The IMF has endorsed such controls, as part of its new Institutional View, calling them "capital flow management measures," or CFMs.[7] Some macroprudential regulations are devoted to international transactions and thus can become capital controls in disguise.

A NEW STRATEGY

The world needs a new strategy to deal with these problems. The new strategy could build on the old strategy of the 1940s. We now have evidence that the key foundation of a rules-based international monetary system is simply a rules-based monetary policy in each country. Research shows that the move toward rules-based monetary policy in the 1980s was the reason that economic performance improved in the 1980s and 1990s. More recent research shows that the spread and amplification of deviations from rules-based monetary policy are drivers of the current international instabilities. And research shows that if each country followed a rules-based monetary policy consistent its own economic stability—and expected other countries to do the same—a rules-based, internationally cooperative equilibrium would emerge.[8]

So today, as in the 1940s, the international community could forge a new

7 International Monetary Fund, "The Liberalization and Management of Capital Flows: An Institutional View" (International Monetary Fund, Washington, DC, November 14, 2012).

8 John B. Taylor, "A Rules-Based Cooperatively-Managed International Monetary System for the Future," in *International Monetary Cooperation: Lessons from the Plaza Accord after Thirty Years*, edited by C. Fred Bergsten and Russell Green (Washington, DC: Peterson Institute for International Economics, 2016), 217–36.

agreement whereby each country would commit to its own rules for monetary policy. In keeping with today's integrated global economy, it would not be an adjustable peg system but, instead, a flexible system in which each country—each central bank—describes and commits to a monetary policy rule or a strategy for setting its monetary policy instruments. The strategy could include a specific inflation target, some notion of the long-run interest rate, and a list of key variables and ways to react to them. Such a system would provide each central bank with a transparent tool kit to deal with the real economy. Experience shows the importance of making sure the process does not impinge on other countries' monetary strategies nor focus on sterilized currency intervention.[9] The rules-based commitments would reduce the volatility of both capital flows and exchange rates, while also removing some of the reasons that central banks have followed each other in recent years.

Such a process would pose no threat to either the national or the international independence of central banks. It would be the job of each central bank to formulate and describe its strategy. Participants in the process would not have a say in the strategies of other central banks, other than that the strategies be reported. And the strategies could be changed or deviated from if the world changed or if there were an emergency. A procedure for describing the change and the reasons for it would be in the agreement.

The IMF would have an important role in maintaining this international agreement to state and follow a monetary rule or strategy. First, it would naturally take a monitoring role by providing a common format for describing each country's strategy in a transparent way, as well as keeping track of and reporting on each country's strategy. Second, it would provide guidance to countries and central banks, and share procedures to help them to communicate their strategies internationally. The policy rules or strategies would likely be different for small open economies than for large economies, and the IMF would allow for such differences. Other than ensuring transparency and clear reporting, the IMF would not have to stipulate that countries follow specific rules, but only that they follow some rule.

Note that this strategy is not just for the G7 or the G20 or some regional grouping. It is completely global—something for all the members of the IMF. As in the 1940s, the process could begin informally with a small group and then spread out, perhaps through circulating markups of the relevant sections of the agreement.

This reform is by far the most important ingredient needed for re-creating a rules-based international financial system. It will be difficult to carry out because there is still disagreement about

9 That is a lesson from the Plaza Accord of 1985, as explained in Taylor, "A Rules-Based Cooperatively-Managed International Monetary System for the Future."

the diagnosis and the remedy, though disagreement and debate were features of the period leading up to the Bretton Woods Agreement in the 1940s too.[10] Some argue, for example, that the competitive depreciations of the 1930s and those of the past few years are simply part of the process of world monetary policy easing.[11]

Though many countries are still in the midst of unconventional monetary policies, the US Federal Reserve is now in the process of normalizing its balance sheet and its interest rate policy. It appears to be moving onto a path to bring monetary policy back to a rules-based framework. Many of the changes have occurred recently, even as, in reports and speeches, the Federal Reserve has been emphasizing its monetary strategy and the use of monetary policy rules.[12]

The Fed's approach paves the way to an international monetary normalization and reform of the kind proposed here. Such a reform is attractive because each country can choose its own strategy and still contribute to global stability. And the time may be ripe, as witnessed by many recent calls for international monetary reform. The former head of the Reserve Bank of India, Raghu Rajan, emphasized that "what we need are monetary rules."[13] The European Central Bank president, Mario Draghi, argued that "we would all clearly benefit from . . . improving communication over our reaction functions."[14]

Other related reforms would also be important, such as setting a long-term goal of open capital markets and a corresponding sequenced removal of capital controls. Currently, 36 countries have open capital accounts, but another

10 Benn Stiel, *The Battle of Bretton Woods: John Maynard Keynes, Harry Dexter White, and the Making of a New World Order* (Princeton, NJ: Princeton University Press, 2013) describes the contentious disagreements back then, especially in the battle between John Maynard Keynes and Harry Dexter White, some of which continued at the 1944 conference, as may be seen in the recently published transcripts: Kurt Schuler and Andrew Rosenberg, eds., *The Bretton Woods Transcripts* (New York: Center for Financial Stability, 2015).

11 See, for example, Ben S. Bernanke, "Monetary Policy and the Global Economy" (Speech at Department of Economics and Suntory and Toyota International Centres for Economics and Related Disciplines Public Discussion in Association with the Bank of England, London School of Economics, London, March 25, 2013).

12 See, for example, Jerome H. Powell, "Semiannual Monetary Policy Report to the Congress" (Given before the Committee on Financial Services, US House of Representatives, Washington, DC, February 27, 2018) and Board of Governors of the Federal Reserve System, *Monetary Policy Report* (Federal Reserve System, Washington, DC, July 13, 2018).

13 Raghuram Rajan, "Why the World Needs New Monetary Policy Rules," *World Economic Forum*, March 22, 2016, www.weforum.org/agenda/2016/03/why-the-world-needs-new-monetary-policy-rules/.

14 Mario Draghi, "The International Dimension of Monetary Policy" (speech, ECB Forum on Central Banking, Sintra, Portugal, June 28, 2016).

48 are classified as "gate" countries and 16 as "wall" countries, with varying degrees of capital controls.[15] The reform would involve a change in the IMF's Institutional View, and it should occur with a transition period, accompanied by measures to improve market resiliency in individual countries, along with adequate enforcement of safety and soundness regulations on financial institutions. Though controversial, the reform would be conceptually the same as the 1944 agreement to remove exchange controls.

CONCLUSION

This clear commitment to a strategy of counteracting "economic evils," as described 75 years ago by Secretary Morgenthau, could be part of an overall international economic reform. The specific reforms of the international monetary institutions that I have outlined here could form the basis of a broader strategy of economic growth, stability, and development that includes the World Bank, other international financial institutions, and the World Trade Organization. In that way, I believe we can reset the international economic system for another 75 years of progress and accomplishments. Such a reform would be a way of recommitting to the spirit of Bretton Woods and to the benefits of a rules-based international economic system as a key force for global peace and prosperity.

15 Andres Fernández, Michael W. Klein, Alessandro Rebucci, Martin Schindler, and Martín Uribe, "Capital Control Measures: A New Dataset" (IMF Working Paper No. 15/80, International Monetary Fund, Washington, DC, April 2015).

THE FUTURE OF THE EUROZONE

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AN UNPRECEDENTED PROJECT

The creation of the euro in 1999 was one of the most influential changes in the international monetary system since the Bretton Woods agreements. Although many countries were bound by a fixed exchange rate system during the first two decades after World War II, never before had so many advanced economies—initially 11, grown currently to 19—decided to share their monetary sovereignty to give birth to a monetary union with a single currency, managed by a single central bank. The creation of the euro is no doubt a unique project in modern monetary history.

The project was nevertheless controversial from the start, being criticized by many academics on the basis that the European Union did not qualify as an optimal currency area. It was rejected by some member states, in particular the United Kingdom and Denmark, which obtained opt-out clauses. It experienced several shortcomings, in particular as a result of the great financial crisis that erupted in 2008 and lasted longer in Europe than elsewhere. The eurozone slid into a second recession in 2012/13, while the international economy was continuing its recovery. The International Monetary Fund (IMF) was asked to intervene on several occasions, in particular to contribute to the design and financing of the adjustment programs of countries such as Greece, Ireland, and Portugal, which had lost access to financial markets.

The request to access IMF resources was difficult to understand, especially for less-developed constituencies, since the eurozone is one of the world's most advanced economic areas and should, in principle, be able to deal with its internal problems. As Jean-Claude Juncker, president of the European Commission, recently stated in front of the European Parliament, US authorities would certainly not request the help of the IMF

if California had budgetary problems! Rather than asking for external help, shouldn't European countries fix those parts of the monetary union that do not work properly? For how long can the eurozone rely on external help to address its internal problems, and for how long will other constituencies be willing to provide such help? Given the size of the eurozone, these questions are of interest to the whole international monetary system.

The future of the eurozone will depend on three main capabilities. The first is the ability to complete the necessary monetary and financial architecture to ensure that the union is capable of countering major shocks, such as that experienced during the Great Recession of 2008. The second is the ability to restore strong and sustainable growth so as to address the consequences of globalization, in particular on the inequalities that are fueling a widespread dissatisfaction with European institutions. The third is the ability to contribute to a more stable international financial and economic order.

STRENGTHENING THE EURO ARCHITECTURE

It is widely recognized that the eurozone has been built on the assumptions that there would be no crises and that if all the members behaved properly, there would be no need for major policy adjustments. These ideas were the basis for inserting provisions such as the no-bailout clause, which prohibits governments from supporting each other's debt, and for preventing the central bank from purchasing public debt on the primary markets. The assumption of a crisis-free world was obviously an illusion. Crises do happen and policy makers do make mistakes.

During the 2012/13 crisis, the eurozone took measures to improve the institutional architecture of the monetary union and make the system more resilient. To cite just a few of these measures, the European Stability Mechanism was created to help finance countries that lose access to capital markets. The European Central Bank adopted the Outright Monetary Transactions program to protect countries that abide by adjustment programs from speculative attacks in the financial markets, which can drive borrowing costs to unsustainable levels. The banking union was created, and the European Central Bank was given responsibility for supervising the EU financial system under the Single Supervisory Mechanism. The Single Resolution Fund was set up to resolve failed banks.

These changes have strengthened the eurozone and enabled it to recover after the second recession, in 2012/13. However, they are not sufficient to ensure that the union would not be severely hit in the face of a new crisis. Further strengthening is required. The key problem is the ability of the monetary union to face a shock, either symmetric or asymmetric, the latter of

which may produce a different impact across countries. The different room for maneuvering that each country may have in addressing the shock, as a result of a different budgetary or cyclical position, may tend to widen divergences and fuel snowball effects as well as self-fulfilling expectations that can destabilize financial markets.

Improving the eurozone's resilience requires action in various areas. The first is to complete the union's capacity to absorb shocks through the financial markets, which in turn requires completion of the banking union. Building a true pan-European banking system would ensure that regions or countries that are hit by a shock can continue to be financed thanks to the geographic diversification of banks' balance sheets. The biggest obstacles to a full-fledged banking union are the persistence of national exceptions in European regulation, which allow national authorities to require banks to maintain national liquidity and capital constraints, and the lack of a common deposit insurance scheme.

Another requirement is the creation of a true capital market in the eurozone that can distribute the effects of shocks evenly throughout the area. The project that has been launched by the European Commission falls short of ambition and has been implemented in relatively small part. A revitalized approach is needed. A more integrated financial market also requires the availability of a truly European "safe asset," denominated in euros, that can be used by market participants to manage their liquidity and to serve as a benchmark for pricing risky assets.

There is also a need to create the foundations of a more coherent policy response to shocks, based on a common instrument. This step would require a European budget to finance interventions across the union so as not to overburden national budgets. Such a budget could initially finance specific policies, such as unemployment compensation, subject to adherence to common standards. The issue is not simple politically, however, because of the reluctance to create mechanisms that could lead to the permanent transfer of resources across countries, potentially fueling moral hazard. Nevertheless, several proposals have been put on the table that could be experimented with and broadened over time.

RESTORING SUSTAINABLE GROWTH

The second factor that will determine the future of the eurozone is its ability to generate policies to foster sustainable growth and reduce unemployment, especially youth unemployment, which is one of the main reasons for the disaffection people express toward European institutions. During its first 20 years, the eurozone largely relied on world trade as the main engine for growth, in particular after the second recession, in 2012/13. The eurozone's current account moved from an overall balance at the start of the

euro to a surplus of around 4 percent of GDP. Most eurozone countries are actually in surplus, with the exceptions of France, Greece, and Cyprus.

International trade might not continue to be as dynamic as in the past, especially if protectionist pressures continue to mount and retaliations between major trade blocs escalate. If Europe wants to strengthen its growth performance in a sustainable way, it needs to rely more on domestic demand. Such reliance requires a rebalancing in the growth model, with greater emphasis on consumption and investment, both public and private.

Consumption can be boosted through faster increases in purchasing power, in particular real wages. Such increases can be achieved only through higher productivity growth, which in turn requires stronger investments in technology and innovation. Making the European economy more attractive for investment is the key challenge in the years ahead, and it will require a stronger effort in research and development to create a more stimulating environment for entrepreneurship. It will also require structural reforms in the product and labor markets to allow new companies to emerge and develop without being hampered by barriers to entry.

The excess of savings over investment in Europe also needs to be channeled through a better-functioning capital market. The implementation of a capital market union is aimed not only at better absorbing shocks that affect the eurozone but also at financing a more dynamic economy.

To implement these policies, the eurozone largely relies on policies enacted at the national level. The budget available at the EU level is limited. The new budget for the 2020–2027 phase needs to stand up to the challenges faced by the world economy. To do so requires a stronger capacity to invest in research and development, as well as in common defense and security. Negotiation on a new financial plan should start following the May 2019 European elections, with a view to being completed by the end of 2019.

THE EURO AS A GLOBAL PLAYER

The third factor that will determine the future of the eurozone is the role that the EU will want, and be able, to play at the global level. The rebalancing of power, in economic and political terms, has accelerated in recent years. China is emerging as the world's largest economy, with growing political influence not only in Asia but also in Africa and Europe, notably through the Belt and Road Initiative. The United States is trying to fight the trend of a decreasing market share, with initiatives aimed at boosting military spending while at the same time reducing military presence abroad.

The issue of migration is affecting all developed areas of the world. The EU, which has limited powers in foreign and security policy because its member states retain most of those capacities, does not seem to have adapted to the new environment. Its process remains

paralyzed by the need to make decisions by consensus, with any country capable of blocking a decision. These constraints explain the difficulty of effectively addressing the challenge of migration, which is particularly burdening some EU members and fueling negative feelings in large parts of the population. They also explain the rising tensions within the transatlantic military alliance, with European countries continuing to limit their budgetary spending on defense, relying instead on US financing.

In the economic sphere, the international representation of European interests remains fragmented. For instance, in the IMF, the Eurozone is represented not by a single chair, which would give it a weight comparable to that of the United States, but by several chairs, some in constituencies containing emerging markets. The European influence is thus diluted and not capable of promoting common interests. The same fragmentation prevails in other international forums, such as the G20 and the Basel Committee on Banking Supervision, the latter of which defines the regulatory framework for global financial markets.

Overall, what seems to be lacking, be it from the European Commission, the European Council, or the European Parliament, is a coherent view of the role that Europe should play in the world and in the economic and political dimensions of international relations, and what measures it should promote to achieve such a role.

An interesting case relates to the role of the euro as one of the major international currencies. Although the euro is currently the second most important currency in the world, after the US dollar, there is no policy to extract from it any key strategic advantages. The international use of the euro is left to free market choice, not encouraged, nor even required in international transactions. This is a very different attitude from that of the United States and possibly China. The United States, in particular, is taking huge advantage of the role of the dollar in international markets, in many different respects. For instance, the extraterritoriality of US legislation is claimed to apply whenever the dollar is used in transactions, even outside the United States and between non–US citizens.

The complexity of the EU decision-making process has prevented Europe from being more assertive in the international environment and made it defensive with respect to the reform of the international financial system, starting with the governance of the IMF and World Bank. This situation has created an imbalance between the economic size of the union and its effective ability to influence global issues. Such an imbalance may become more apparent over time, in particular with the emergence of China and other economic powers that may have different principles and policy objectives from those of the EU. The ability of EU member states to understand that their relative power has decreased and will continue to do so over time, to the point of their becoming irrelevant,

will be a key factor in determining their desire to share sovereignty in these areas. The European institutions, including the Council of Ministers (i.e., the Council of the European Union), the European Commission, and the European Central Bank, should be proactive in promoting a single representation within international bodies, with a view to making the latter more effective and accountable.

It is not clear what will trigger such a change. However, experience shows that Europe tends to move only in reaction to crises. Only in crises do governments realize that the prevailing institutional system does not allow them to make efficient decisions. Only in crises do citizens realize that more rather than less Europe is needed. This has been the case, for instance, with the monetary union, which was implemented after the currency crises of the 1970s and 1980s, and with the banking union, which came after the 2011 crisis.

Jean Monnet's prediction that "Europe will be forged in crises and will be the sum of the solutions adopted for those crises" remains valid. Incidentally, it applies not only to Europe. Most of what the United States is today is the result of decisions made during crises. It is thus an illusion to think that the future of Europe can be drawn in the abstract, based on some theoretical model or copying an existing one. It will be the way in which the people of Europe react to events, including crises, that will affect the world around Europe.

THE LONG MARCH OF CHINA'S EXCHANGE RATE REGIME REFORM

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The reform of China's exchange rate regime has dragged on for some 40 years, since the early 1980s. Currently, China is one of the very few countries in the world that is still reluctant to adopt a floating exchange rate regime.

THE WINDING ROAD TO TODAY'S EXCHANGE RATE REGIME

Since the founding of the People's Republic of China, the renminbi has been basically pegged to the US dollar, though with frequent adjustments. In 1979, when China launched its reform and economic opening, the exchange rate was settled at 1.49 yuan (Y) to US$1.

At the beginning of 1985, a new exchange rate regime was introduced, consisting of an official exchange rate coexisting with a swap rate, the latter decided in the interconnected swap centers across the country, where companies traded foreign exchanges. At these swap centers, the exchange rate was determined on the basis of demand for and supply of foreign exchanges. On January 1, 1994, the swap rate and the official rate were merged. A unified exchange rate was set at Y8.7/US$1, and the renminbi exchange rate started to appreciate slowly.

During the 1997 Asian financial crisis, China adopted a policy of no devaluation under any circumstances. As a result, the country's exchange rate regime shifted to a de facto peg to the US dollar. Then, on July 21, 2005, the renminbi depegged from the US dollar and was revalued from Y8.28/US$1 to Y8.11/US$1. The renminbi exchange rate thereafter was supposed to be based on market demand and supply, with reference to a currency basket.

In August 2008, in response to the Global Financial Crisis, China repegged

the renminbi to the dollar until June 2010. On August 11, 2015, the People's Bank of China (PBOC) announced that the determination of the renminbi exchange rate against the US dollar would be based on the closing rate on the previous trading day. The reform shocked the market, and panic selling of the renminbi ensued. Two days later, on August 13, the PBOC brought the reform to an abrupt end.

In January 2016, the PBOC introduced a new rule for setting the renminbi exchange rate. The rule set today's central parity rate of the renminbi as equal to yesterday's central parity rate plus the change in the renminbi exchange rate against the US dollar that the Chinese monetary authority had to make over the past 24 hours to keep stable the index of a given basket of currencies. This index is known as the China Foreign Exchange Trade System (CFETS) index.

After having risen for some six months, in April 2017 the US dollar index started to fall. According to the central parity-setting rule as well as economic fundamentals, the renminbi exchange rate against the dollar should have risen. However, because of renminbi devaluation expectations, it fell continuously. The PBOC, unhappy with this result, introduced a so-called countercyclical factor into the central parity-setting rule in May 2017, with the aim of weakening the impact of market sentiment on the determination of the central parity rate.

MORE RECENT POLICY DEVELOPMENTS

Today, officially, the renminbi exchange rate against the US dollar is determined by three elements: yesterday's closing price, the needed change in the renminbi exchange rate to keep the CFETS index stable, and the countercyclical factor. The problem is that outsiders do not clearly understand how the countercyclical factor is calculated, and therefore the central parity rate-setting rule is also less than transparent.

Under certain circumstances, a stable exchange rate is conducive to China's export drive as well as its financial stability. However, when the renminbi is under appreciation pressure, an inflexible exchange rate encourages inflows of hot money, which contribute to the creation of asset bubbles. On the other hand, depreciation pressure on the renminbi facilitates the unwinding of carry trade as well as capital flight, both contributing to the erosion of national wealth.

China ran twin surpluses (both current account and capital account surpluses) for more than two decades, until two years ago. While the country has accumulated a huge foreign exchange reserve in the form of low-yield US Treasuries, its foreign liabilities consist mainly of foreign direct investment with a very high return on investment. As a result, despite the holding of US$1.8 trillion in net foreign assets, China's investment incomes have been in deficit for more than a decade. Though the list of the specific causes of the twin surpluses is long, one of the necessary conditions for this irrational

international investment position to exist is the inflexibility of China's exchange rate. The existence of such twin surpluses, by definition, means that the renminbi is undervalued. If the currency were allowed to appreciate to reach an equilibrium level, regardless of by which particular channels, the current account and capital account would have to sum to zero. Hence, China would not need to accumulate such a large amount of low-yield US Treasuries, and it would be less likely to run an investment account deficit.

Since late 2014, capital outflows have surged, China's balance of payments has shifted from surplus to deficit, and the renminbi exchange rate has begun to be under devaluation pressure. Due to the deeply rooted fear of exchange rate instability, the PBOC's policy has shifted from containing renminbi appreciation to preventing renminbi depreciation. As a result of constant intervention, China's foreign exchange reserves fell by an astonishing US$1 trillion in less than two years. Many Chinese economists argue that the shift in policy is to keep foreign exchange in the hands of the people, and hence it represents an improvement in resource allocation. However, while China accumulated US$1.28 trillion of current account surplus from 2011 to the third quarter of 2016, its net foreign assets fell by US$12.4 billion over the same period of time. Nobody knows where the money has gone. If, in the past, the challenge facing China was how to stop importing "dark matter," now it is how to avoid "matter annihilation" as well.

A RECOMMENDED FUTURE PATH

After a temporary respite in 2017, the renminbi has been under depreciation pressure since the second quarter of 2018. Hopefully, having learned this costly lesson in the past, China's decision makers as well as the market participants will treat the current round of depreciation in a calm manner. Whichever the direction of the pressure, China should stop intervening in the foreign exchange market, so as to accomplish the long-overdue reform of the exchange rate regime as soon as possible.

Over the past four decades, the role of the Bretton Woods institutions, in particular the International Monetary Fund (IMF), in the evolution of China's exchange rate regime has been positive but limited. The country's exchange rate policy is not a pure economic issue, and hence how to adopt a fair and objective position for the well-being of the global economy as well as the parties involved is of utmost importance. In this regard, the IMF has done quite a good job. On the other hand, the IMF could be more straightforward and less diplomatic in discussing China's exchange rate policy with the Chinese monetary authority. With its rich experience and expertise, the IMF, as well as the other Bretton Woods institution, the World Bank, certainly can make greater contributions to the reform of China's exchange rate regime.

THE BRETTON WOODS ERA

The Hidden, Misunderstood Role of Debt

RICHARD VAGUE

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Spoiler alert: It was an era of very low debt.

Before we discuss the low debt profile of the Bretton Woods I era, however, a brief review. The Bretton Woods Agreement of 1944 is rightly credited with helping a war-ravaged world recover. It gave the world's currencies a starting point for trade and prevented the early devaluations that would have shattered that fragile start. It created the lending institutions that helped safeguard currencies and boost investment. It helped launch an era that, once past the aftershocks of war, posted the best sustained period of real GDP growth in the 20th century, which ended only with the skyrocketing oil prices of the early 1970s.

As shown in table 1, in the 1920s and 1930s the disparate and competitive trade policies of the industrial nations had created large out-of-balance export and current account positions in Britain, France, Germany, and Japan. Given the complexities of managing trade, any current account with a balance position under 1 percent can effectively be considered balanced, but the positions of Britain, France, Germany, and Japan were often well above this point. The architects of Bretton Woods I were concerned that trade imbalances would again bring the risk of a depression.

It was a testament to the value of their efforts that in the 1950s and 1960s both Britain and France showed much more balanced trade behavior than before. And although Germany and Japan continued to show large imbalances after 1950 as they rebuilt their economies, Germany showed much more balance in the 1960s. Notably, US

TABLE 1.
AVERAGE CURRENT ACCOUNT SURPLUS AND NET EXPORT POSITION, AS A PERCENTAGE OF GDP

	US		UK		GERMANY		FRANCE		JAPAN	
	CAB	NE	CAB	NE	CAB	NE	CAB	NE	CAB	NE
1920s	0.8%	0.8%	1.9%	-5.6%	-1.3%	-2.5%	4.1%	-0.2%	-1.7%	-2.9%
1930s	0.4%	0.5%	-1.0%	-5.6%	0.6%	1.2%	-1.1%	-3.5%	-0.1%	-0.5%
1940s	-0.1%	0.3%	0.8%	-1.2%	1.7%	1.3%	-0.1%	-0.6%	0.8%	-2.9%
1950s	0.5%	0.6%	-0.1%	-1.0%	0.6%	1.8%	0.3%	-0.4%	0.1%	-0.8%

SOURCE: Òscar Jordà, Moritz Schularick, and Alan M. Taylor, "Macrofinancial History and the New Business Cycle Facts," in *NBER Macroeconomics Annual 2016*, vol. 31, edited by Martin Eichenbaum and Jonathan A. Parker (Chicago: University of Chicago Press, 2017), 283–357.

exports and current account balances were in line during all four of these decades—the 1920s, 1930s, 1950s, and 1960s—though the US economy was so large that even small imbalances had a large impact on its trading partners.

In these circumstances, developed economies entered the golden age of growth noted above, though by the early 1970s the Bretton Woods currency parameters proved enough of a straitjacket that the United States, and thus much of the world, had to abandon the Bretton Woods standards.

A PERIOD OF LOW DEBT

What was largely unrecognized about the Bretton Woods I era, both then and now, was that it had an extraordinary boost that contributed significantly to its success: low levels of debt. Many wrongly recall this period as one of high debt, because of the high war-related government debt. But this view doesn't take into account private debt, that combination of business and individual debt that is usually a larger sum than government debt and has a more direct impact on private-sector trends.

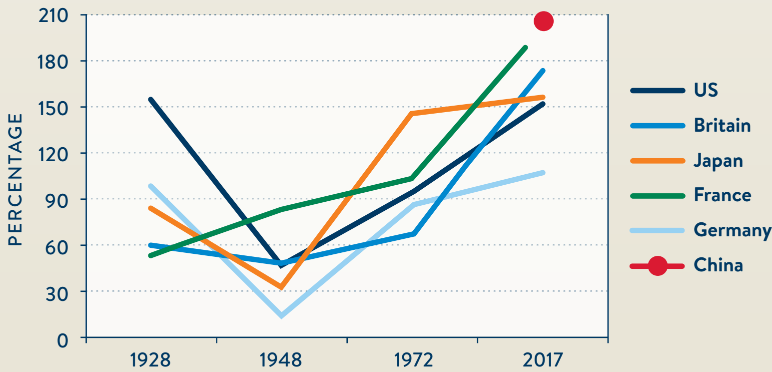
For the United States and the world, the ratio of *total* debt, public plus private, to GDP was lower in 1948 than it had been in 1928, and far below the record high of 1932. More notably, the ratio of private debt to GDP, considered by itself, was at an extraordinary, century-long low.

Why was private debt so low? In the United States, it started with lender curtailment—the disastrous policy of calling loans—that sent loan totals plummeting in the 1930s. Then, in the 1940s, it was a combination of individual austerity and the decision of the US government not to put the burden of financing war manufacturing on corporate America that resulted in a further

FIGURE 1.

RATIO OF PRIVATE DEBT TO GDP

For most of these key countries, private-sector debt was the lowest of the entire Federal Reserve era in the years immediately after World War II.



SOURCE: Data retrieved from https://www.cbo.gov/publication/21728; https://fraser.stlouisfed.org/files/docs/publications/SCB/1950-59/SCB_101950.pdf; https://datacatalog.worldbank.org/dataset/world-development-indicators; https://www.bis.org/statistics/totcredit.htm.

For 1928, Britain and France private debt is an estimate based on bank loan data.

For 1948, Britain, France, Germany, and Japan private debt is an estimate based on bank loan data.

lowering of private-sector debt. Add to this the fact that in Germany and Japan, government debt also reached very low levels. In Germany, this was because the Allied powers, determined not to repeat the mistakes of Versailles that had left that country strangled with reparations and debt, had enacted a program of outright government debt forgiveness in the London Debt Agreement of 1953. In Japan, it was due, at least in part, to the ravages of wartime inflation.

The result was that the late 1940s saw a Federal Reserve–era record low in total debt, as well as in private debt, for four of the five key countries—the United States, Britain, France, Germany, and Japan (see figures 1 and 2).

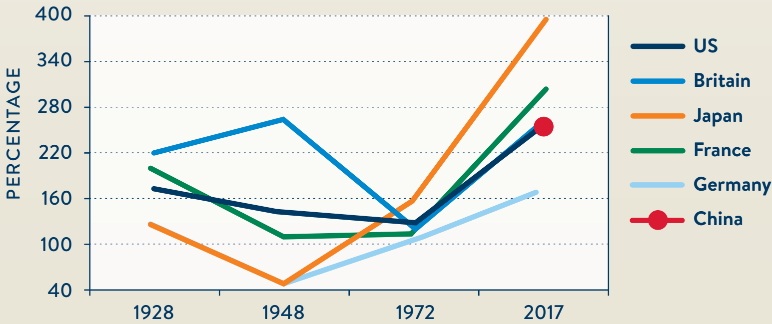
THE ADVANTAGES OF LOW PRIVATE DEBT

Why was low private debt in the Bretton Woods I era so advantageous? Because market-based economies are best positioned to grow when they have low levels of private debt. When a company has a low level of debt, it can more readily expand by using debt to build a new store or factory, and an individual with low debt can more readily take out a loan to, say, build a home addition or buy a new car. Since an economy is for the most part simply the sum of the financial activity of all its businesses and individuals, lower aggregate private debt means a higher growth opportunity for that economy.

FIGURE 2.

RATIO OF TOTAL DEBT TO GDP

For most of these key countries, the ratio of total debt to GDP was lower in 1948 than it had been at the height of the Roaring ’20s.



SOURCE: Data retrieved from sources cited in figure 1, https://www.treasurydirect.gov/govt/reports/pd/histdebt/histdebt.htm, and https://www.imf.org/external/pubs/ft/weo/2018/01/weodata/index.aspx.

For 1928, Britain and France private debt is an estimate based on bank loan data.

For 1948, Britain, France, Germany, and Japan private debt is an estimate based on bank loan data.

With the low private debt-to-GDP levels of the late 1940s, the world was extraordinarily well positioned for expansion. Even better (perversely enough), the devastation and deprivation of the war meant that the world had insufficient quantities of virtually everything—especially housing. It’s hard to imagine a better circumstance for a developed economy than low levels of private debt and widespread shortages—especially housing shortages. In that circumstance, rapid economic growth occurs simply by using debt to add to the needed supply of housing and other items. Mix in a baby boom, and the developed economies of the world soared from the mid-1950s to the early 1970s.

So why did strong growth help Bretton Woods? Because to succeed, Bretton Woods needed a world in which countries were inclined to be cooperative. Certainly, the bonds forged in World War II brought the goodwill that carried Bretton Woods in its early years. But as that source of goodwill faded, it was the world’s robust economic growth in the late 1950s and 1960s—growth boosted by the rapid loan growth that so easily came from this platform of low private debt—that brought a new wave of goodwill. It gave developed economies a strong tailwind and helped cover up a multitude of problems—there were simply plenty of good results to go around.

There was another really good thing about the low private debt of the period. As I have shown elsewhere, financial crises are much less likely when private-sector debt is low (since financial crises

are usually simply moments when far, far too many bad loans have been made), so with this very low private debt, there were no major financial crises in this period, and that fact alone brought advantage to the era.

One other really good thing about low private debt was that it allowed the United States to deleverage from its sky-high government debt. As the government debt-to-GDP ratio of the United States declined in the 1950s and 1960s, it was offset—and in effect made possible—by growth in the private debt-to-GDP ratio. If that had not been true, that government debt deleveraging would have brought a decades-long recession. In fact, a review of more than 40 countries since World War II shows that most instances of an improved government debt-to-GDP ratio have been possible because of offsetting growth in the private debt-to-GDP ratio.

WHAT WENT WRONG IN THE ROARING '20S

Back to Bretton Woods. The Bretton Woods Agreement had stemmed from an incomplete understanding of the factors that brought on the Depression and fascism and thus World War II. The Bretton Woods architects attached great importance to trade and currencies. They felt it was the mismanagement of those two things that had, in large part, brought on the Great Depression. To the extent they considered debt, it was government debt—not private-sector debt. They overlooked, however, that it was private debt that had been the biggest factor in bringing about the Great Depression.

In the $100 billion US economy alone, there was a massive, runaway $40 billion growth in private-sector debt between 1923 and 1928, largely comprised of speculative loans for ill-conceived real estate development that went awry and brought down the banking industry. To put that in perspective, US GDP growth during that period was only $12 billion. Total annual US exports averaged only $5 billion, and international debt owed to the country appears to have been less than that. Gold at the Federal Reserve was only $2.5 billion. Growth in US private debt was by far the largest factor in the development of the Depression. Note also that this private debt growth totaled an amount far larger than the $33 billion in German reparations, only $21 billion of which was paid.

That massive overextension of loans created a massive oversupply of buildings and housing. With that oversupply, sales plummeted, bank loans soured, and long lines of desperate depositors started pulling their deposits out of those banks. The bad debt decimated bank capital. It forced banks to prematurely call loans, resulting in a massive contraction of loans and thousands of bank failures. Loans shrank by $32 billion in a mere three years, on a percentage basis an amount inconceivable today, helping bring about a $45 billion decline in GDP.

As much as the crafters of Bretton Woods I focused on trade, it was a smaller factor than is generally recognized and appreciated, and it is therefore important to keep the trade imbalances of the 1920s in perspective. In the United States, which was the epicenter of the global Great Depression, exports were only 5 percent of GDP in 1926, as compared with 12 percent today. (Trade was a much smaller factor in France and Germany then as well.) As mentioned, US gross exports were only $5 billion annually in a $100 billion economy, and the year-to-year change in exports prior to the Depression was never more than $0.65 billion. Compare that with the plunge in GDP of $45 billion in three years. Trade was simply not large enough to be a major cause of the Depression.

THE PARADOX OF DEBT

Back to private debt. How could private debt be so good for one era, namely the Bretton Woods I era, and so bad for another, namely the rampant lending of the late 1920s? Because, importantly, private debt is a very sharp two-edged sword. When private debt is low and used prudently, it is very good indeed, poised to power growth. But when it grows too fast and gets too high it can be lethal, bringing oversupply, strangling those suddenly unable to pay, and crushing lenders. Real estate loans in both the United States and Germany had reached that lethal precipice in the late 1920s, and they brought a crushing collapse. Hitler's party gained most of its ground *after* the German people were suffering in the economic debris of that country's often ignored but all-too-real, debt-induced real estate collapse.

I call it the paradox of debt. Private debt is good and necessary but can bring calamity when it grows too fast. This was a hard lesson that had to be relearned in 2008.

The architects of Bretton Woods I ignored private debt and focused instead on currencies, trade, and gold. But they were lucky. Though they hadn't noticed, world circumstances had done the deleveraging work without them, bringing the low levels of private debt from which to launch this new era.

Low private debt was a hidden, but invaluable, boost to Bretton Woods.

AN INTERCONNECTED WORLD

Bolstering Financial Resilience through Insurance

WALTER B. KIELHOLZ
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Reading the news makes it seem as if we live in the riskiest of times. Rarely does a day go by without another crisis dominating the headlines—cyclones in Mozambique, dam failures in Brazil, extremism in New Zealand. The cost of these events is staggering. Economic losses from disasters have increased for decades and reached more than US$150 billion in 2018. Tragically, some 10,000 people lost their lives due to these same disasters.[1] The scale, complexity, and interconnectedness of risks have grown.

Yet we know that humans are better off and better protected than at any time in history, living wealthier, healthier, and safer lives. Part of this revolution is the trust and confidence that have come with the evolution of the private life and nonlife insurance markets. For example, we take it for granted that our homeowner's policy will reimburse our losses if our house burns down or that our health care coverage will finance our visit to the emergency room when needed. Only a few generations ago, our ancestors would never have dreamed of such protection.

However, as we look to the next phase of economic progress, we must confront a stark reality. We cannot rely on more capital alone to reduce risk in an increasingly complex and interconnected world. Our world may be wealthier and safer than in the past, but those benefits have been concentrated

1 Lucia Bevere, Anna Ehrler, Vineet Kumar, Roman Lechner, Alexandra Schelbert, Marla Schwartz, and Rajeev Sharan, "Natural Catastrophes and Man-Made Disasters in 2018: 'Secondary' Perils on the Frontline" (Swiss Re Sigma Report No. 2/2019, Swiss Re Institute, Zurich, Switzerland, 2019).

in a limited segment of the population. We must rethink the way we view the public-private compact established by Bretton Woods. Growing our global economy will no longer be enough. We must also strive for equitable and inclusive growth so that people in emerging markets can also share in the benefits of economic prosperity. Though we may be a ship with many decks, we share a common destination. We are now compelled to adjust our course as we face more turbulent seas.

TWIN PILLARS OF FINANCIAL SYSTEM STABILITY

In the 14th century, shippers in the northern Italian port city of Genoa invented insurance by separating mutual risk sharing from earlier bilateral credit contracts. Rather than use high interest rates to hedge against misfortune, these new contracts allowed for more accurate pricing of risk and created incentives to manage risks prudently. Since then, the techniques to protect human enterprise from misfortune have become increasingly sophisticated, gradually making ever more risks insurable.

Today the insurance industry, which includes reinsurance as its backstop, is a pillar of a stable financial system. It provides a financial safety net to protect assets and livelihoods, allowing people to take calculated risks and, in turn, to pursue economic enterprise.

The Bretton Woods institutions were created in the post–World War II era with goals for the macroeconomy very similar to those of the insurance industry: reconstruction, risk diversification, and economic stability. By creating a mutual lending system, coupled with analysis, capacity building, and access to markets, the World Bank and the International Monetary Fund (IMF) have served as part of the economic and political framework of assurance to emerging-market economies. Given such closely intertwined objectives, it is not surprising that over time, the Bretton Woods institutions and the (re)insurance sector came to appreciate and acknowledge their complementary roles.

During what the UN declared the "Decade of Development" of the 1960s, the UN Conference on Trade and Development identified a sound insurance and reinsurance market as an "essential characteristic of economic growth" in developing countries.[2] The insurance industry, in turn, looked to the World Bank to provide the regulatory frameworks that would enable the flow of capital and, later through the International Centre for Settlement of Investment Disputes, the legal processes to uphold the rule of law.

In the 1980s and 1990s, as international organizations sought alternatives to debt-creating loans, the World Bank

2 See UNCTAD Recommendation A.IV.23: "Proceedings of the United Nations Conference on Trade and Development" (E/CONF.46/141, Vol. 1, United Nations, New York, NY, 1964).

started to actively promote the liberalization of international reinsurance services to help developing countries place their risk in globally diversified risk pools. As a by-product, consumers in emerging-market economies began to see more insurance product innovation, such as annuities and business interruption policies. The World Bank and IMF have also been key advocates for the role of the (re)insurance sector as a long-term investor in local capital markets and infrastructure financing, bringing further depth and stability to domestic debt markets.

Today, the World Bank and IMF are increasingly focused on the impact of new risks on emerging economies, both natural ones such as climate risks and man-made ones such as cyber risks. The recognition of the detrimental impact of such exogenous risks on economic and human development, fiscal stability, and the broader social and political environment is forcing these institutions to provide new responses to their constituents.

In summary, over the last 80 years, the Bretton Woods institutions have acted as a stabilizer for the governments of emerging economies. In parallel, insurers and reinsurers have provided a similar service to the private sectors of those countries by pricing risk, encouraging enterprise, and speeding up recovery following catastrophes. Yet, as we reflect on three-quarters of a century of the Bretton Woods institutions, we must acknowledge that our tested tools will need to evolve to prepare us for the next 75 years.

PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS

In 1906, days after a massive earthquake (estimated at a moment magnitude of 7.9) and subsequent fire devastated the city of San Francisco, the first funds from insurers arrived in the city, providing weary residents strong signs that all was not lost. Most insurance contracts at the time excluded fire following an earthquake. Regardless, (re)insurers paid out, recognizing that without their contribution even a city as dynamic as San Francisco would face a slow recovery. In 2018, the global private insurance sector paid out US$4.6 *trillion* in total life, health, property, and other financial losses, according to Swiss Re Institute estimates. This amount, more than 5 percent of global GDP, reflects the importance of the industry in supporting financial resilience globally.

Yet the lack of insurance is a mounting challenge to economic development around the world, particularly in the fast-growing emerging markets, where growth has outpaced the take-up rate of insurance. The result is the growing exposure of uninsured capital stock and human lives.

The differences between actual losses and insured losses are called "protection gaps," and they are staggering in terms of both economic cost and human

suffering. The global protection gap to life and property amounts to US$500 billion in annual expected losses.[3] Over the past 10 years, more than 70 percent of losses from natural catastrophes went uninsured. In emerging markets, this ratio rises to more than 90 percent.[4]

The figures are even more alarming when expressed in human terms. Over 225 million people are impacted by earthquakes, droughts, floods, storms, and other natural catastrophes every year.[5] Between 2008 and 2017, an estimated 2 billion people worldwide were affected by natural hazards, the vast majority of which were weather related. Floods and storms alone accounted for almost two-thirds of all incidents.[6] Of particular concern, the absence of adequate risk prevention places a disproportionate burden on the most vulnerable, exacerbating economic inequalities and threatening years of development gains.

Protection gaps expose societies to massive financial, political, and social risks. In a 2016 working paper on the fiscal costs of contingent liabilities, the IMF noted that while contingent liability risk arises primarily from the financial sector in advanced economies, for emerging markets, natural disasters stand out as one of the leading historical contributors to contingent liabilities on government balance sheets.[7]

CLOSING PROTECTION GAPS ENHANCES OUR FINANCIAL RESILIENCE

One approach developed in recent years to face this financial resilience challenge head on is to tackle the protection gap at the macro level. Governments are increasingly looking for ways to pre-finance catastrophic events using financial risk management tools. These ex ante financing solutions range from risk retention and contingent credit lines to innovative public-private transactions, whereby risk is transferred to third parties such as capital markets or (re)insurers. Beyond simply reducing budget volatility,

3 Fernando Casanova Aizpun, Caroline De Souza Rodrigues Cabral, Irina Fan, Astrid Frey, Jessie Guo, Thomas Holzheu, Finn Krueger, Roman Lechner, Mayank Raturi, Maurus Rischatsch, Patrick Saner, Daniel Staib, Kulli Tamm, and Clarence Wong, "Global Economic and Insurance Outlook 2020" (Swiss Re Sigma Report No. 5/2018, Swiss Re Institute, Zurich, Switzerland, 2018).

4 Bevere et al., "Natural Catastrophes and Man-Made Disasters in 2018."

5 Debarati Guha-Sapir, Philippe Hoyois, Pasacline Wallemacq, and Regina Below, *Annual Disaster Statistical Review 2016: The Numbers and Trends* (Brussels: Centre for Research on the Epidemiology of Disasters, Université Catholique de Louvain, 2017), https://reliefweb.int/sites/reliefweb.int/files/resources/adsr_2016.pdf.

6 David Fisher, Kirsten Hagon, Charlotte Lattimer, Sorcha O'Callaghan, Sophia Swithern, and Lisa Walmsley, *World Disasters Report 2018: Leaving No One Behind* (Geneva, Switzerland: International Federation of Red Cross and Red Crescent Societies, 2018), http://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2018/10/B-WDR-2018-EN-LR.pdf.

7 Elva Bova, Marta Ruiz-Arranz, Frederik Toscani, and H. Elif Ture, "The Fiscal Costs of Contingent Liabilities: A New Dataset" (IMF Working Paper 16/14, International Monetary Fund, Washington, DC, 2016).

these proactive measures accelerate post-disaster recovery and make a country more attractive to investors.

In its landmark 2015 report on the relationship between natural disasters and sovereign ratings, the rating agency S&P Global suggested that in the case of a major earthquake or hurricane, several emerging-market nations were exposed to, on average, a one- to two-notch sovereign downgrade, with more pronounced impacts for small island states and less-diversified economies.[8] In contrast, governments that embrace a preemptive risk management approach will succeed in attracting funds for resilient infrastructure development, which will spur entrepreneurship and innovation, enabling these governments to direct resources toward protecting the lives and livelihoods of their most vulnerable constituents.

Helping people, businesses, and indeed entire communities cope with the financial consequences of catastrophes—human-caused and natural—has been the core function of the (re)insurance industry from its early beginnings. In their search for ways to improve the capitalization and financial resilience of the emerging markets, the Bretton Woods institutions have discovered new forms of collaboration with the (re)insurance sector. Consider the World Bank's leading role in advising sovereign governments on climate resilience. Under its guidance, Caribbean nations formed the world's first regional sovereign risk pool so that the fiscal shocks of natural disasters could be borne by the broader shoulders of the reinsurance market. Similar schemes have been piloted in other regions of the planet. In a recent case, four Latin American governments jointly placed more than US$1 billion in seismic risk in the capital markets with the World Bank's assistance.

To consistently improve financial resilience, partnerships between the (re)insurance sector and the Bretton Woods institutions will play a key role in contributing toward the long-term capitalization, development, and stability of the global economy. Most importantly, by collectively derisking the economy, we can better secure the livelihoods of the most vulnerable.

CLOSING PROTECTION GAPS ENHANCES OUR SOCIAL FABRIC

Closing the protection gap, however, is ultimately about more than just creating financial resilience. Resilience is created when benefits and protections are shared in an equitable and inclusive manner.

The World Bank Group and IMF were established in the post–World War II era to channel financing to reconstruct a devastated Europe, and they were later tasked with funding the development of newly independent states of the Global South. In these situations, they were

8 Moritz Kraemer, Marko Mrsnik, Alexander Petrov, and Boris Glass, "Storm Alert: Natural Disasters Can Damage Sovereign Creditworthiness" (S&P Global Ratings, September 10, 2015).

by far the most important providers of affordable capital. Today, their collective means are dwarfed in volume by private financing flows to emerging markets.

However, in a world where crisis can be exported around the globe overnight through a contagious pathogen aboard an airplane, where nonstate actors manage to suspend economic activity through a single act of terror, and where entire regions are devastated by increasingly frequent storms, the role of the World Bank and the IMF as global risk managers may take on new significance.

To counter today's emerging-market risks, we require not just capital but also crisis response, agile support mechanisms, and tailored financing instruments. In this context, the (re)insurance tool kit can perhaps help strengthen the impact of the existing multilateral tools of policy-based lending—not just by providing more capital but by enhancing core principles of risk pricing, thereby creating incentives to improve behavior and promoting financial transparency.

In building out the environmental, social, and governance framework of its newly created Global Infrastructure Facility, the World Bank has actively sought the views of the (re)insurance sector. This collaboration is partly due to the Bank's recognition that (re)insurers have a unique insight into whether projects are "economically, technically, socially, environmentally, and fiscally viable to achieve value for money for governments and service users."[9]

Advancing these principles, innovations are making risk awareness and management a more practical reality to emerging-market consumers. Digital technology is helping streamline the sales process and reducing distribution and administrative costs. At the same time, developments in data analytics are broadening the scope of what can be insured. In short, managing risk is rapidly becoming more affordable, accessible, and relevant to all segments of the population.

In 2015, the government of Kenya and the World Bank developed a satellite-based insurance system that provides livestock farmers rapid insurance payments under accelerating drought conditions. The true value of the program, however, is in its ability to make payments in time to save livestock, in the transparency of its payment process, and in the forward-looking risk framework it provides to pastoralists. More important still, the insurance system represents an efficient and effective government program that increases inclusion and opportunity for a vulnerable segment of the population.

In the end, by applying the techniques used by insurers, such as risk identification, quantification, prevention, and mitigation, to topics as varied as infrastructure and agriculture, we can make the provision of public capital more efficient and public decision

9 *Global Infrastructure Facility* (brochure), https://www.globalinfrafacility.org/sites/gif/files/GIFBrochure.pdf.

making more transparent. Rebuilding trust and confidence in our public institutions is precisely what motivated the drafters of the Bretton Woods Agreement, even if they could not have imagined the technology that would bring these dreams to bear.

CONCLUSION

Looking over the changing skyline of New York City, American industrialist Henry Ford once remarked, "This has only been made possible by the insurers. They are the ones who really built this city. With no insurance, there would be no skyscrapers. No investor would finance buildings that one cigarette butt could burn to the ground."

Today, the role of insurance is as critical for economic development, innovation, and social cohesion as it was for investors in New York's economic development at the turn of the 20th century. Without the financial safety net, independent evaluation, and mutuality provided by insurance, no farmer can plant crops, no government can administer health services, and no contractor can guarantee construction of critical infrastructure. As political winds rattle the postwar agreements that have led to the greatest economic progress humankind has ever seen, it may be useful to remember that while no insurance policy can take away the pain and suffering of losing a loved one, insurance can provide some security in times of crisis.

After many years of partnership, it feels as if the Bretton Woods institutions and the (re)insurance sector are entering a new phase in their long journey together. In this sense, we can hope that our partnership will help our world continue to navigate away from rocky shoals while advocating for the essential characteristic of humanity—that we are indeed a ship sailing across uncharted waters, but that in our time of need, we have the capacity to come together across boundaries, across political affiliations, and across generations to sail forward as one.

THE GOVERNANCE OF THE INTERNATIONAL MONETARY SYSTEM

JOSÉ ANTONIO OCAMPO

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The governance of the international monetary system has been the subject of a heated debate for decades.[1] The fundamental issue is the need to develop a multilayered global financial safety net (GFSN), with a well-funded International Monetary Fund (IMF) at the center, working through a network of regional financial institutions under swap arrangements. A second set of major issues relates to the legacy of control of the Bretton Woods institutions (BWIs) by the major developed countries and the tendency for key decisions to be made by a group of major countries outside the framework of treaty-based organizations. Finally, major governance reports have recommended other internal reforms that have been only partly implemented.

A MULTILAYERED ARCHITECTURE FOR THE GFSN WITH A WELL-FUNDED IMF AT THE CENTER

The major needed institutional reform is a fully developed, *dense,* multilayered GFSN that relies more broadly on regional and interregional institutions' payments agreements, reserve pools, and emergency lending facilities, as well as central bank swap arrangements—the latter the major mechanism of cooperation among developed countries, now being actively promoted by China. Indeed, in a heterogeneous international community, the creation of *networks* of global, regional, and national institutions can provide a better system of governance

1 This paper draws from Ocampo's recent book on the international monetary system, *Resetting the International Monetary (Non)System* (New York: Oxford University Press, 2017).

than arrangements based on single, global organizations. What this means is that the IMF of the future should be conceived of as the apex of a *network* of regional and interregional monetary agreements. The IMF has accepted the need to cooperate actively via regional arrangements,[2] and this principle is reflected in the memorandums of understanding it has signed with regional institutions in recent years.

A system such as this would be closer in design to that of the multilateral development banks, whereby the World Bank coexists with several regional development banks and, in some parts of the world, with several subregional institutions and some interregional banks. In contrast to the network described above, the considerable regional gaps that characterize the present international monetary system indicate the need to actively promote the creation of regional monetary arrangements.

The best arguments in favor of regional and subregional institutions are of a political economy character: the strong sense of ownership of these institutions by member countries, especially small and medium-sized ones. Given the incomplete nature of the existing GFSN, these institutions can also contribute toward filling the gaps of the existing architecture[3] in many ways, including promoting a stronger dialogue on macroeconomic and financial policies, and possibly conducting monitoring and coordination of these policies.

Regional and subregional institutions could also provide automatic credit facilities similar to the ones swap arrangements provide. In fact, one of the major drawbacks of the IMF credit facilities is the weakness of the Fund's contingency arrangements. In particular, beyond the Flexible Credit Line and other contingency arrangements that have been created, a more ambitious reform is needed, one that would design a credit facility that operates in a way similar to central banks' swap arrangements; such a mechanism would also help reduce the stigma associated with borrowing from the IMF.[4] An alternative would be for regional arrangements

2 International Monetary Fund, "Collaboration between Regional Financial Arrangements and the IMF" (IMF Policy Paper, International Monetary Fund, Washington, DC, July 2017).

3 In this regard, see G20 Eminent Persons Group on Global Financial Governance, *Making the Global Financial System Work for All* (n.p.: G20 EPG, 2018); Ilene Grabel, *When Things Don't Fall Apart: Global Financial Governance and Development Finance in an Age of Productive Incoherence* (Cambridge, MA: MIT Press, 2017), chap. 6; Julie McKay, Ulrich Volz, and Regine Wölfinger, "Regional Financing Arrangements and the Stability of the International Monetary System," *Journal of Globalization and Development* 2, no. 1 (2011): 5; José Antonio Ocampo, *Resetting the International Monetary (Non)System*, chap. 6.

4 See the IMF's proposal to create a new facility, the Short-Term Liquidity Swap (which was debated in December 2017 but not approved), as well as the views of the G20 Eminent Persons Group on the matter: International Monetary Fund, "Adequacy of the Global Financial Safety Net—Considerations for Fund Toolkit Reform" (IMF Policy Paper, International Monetary Fund, Washington, DC, December 2017); G20 Eminent Persons Group, *Making the Global Financial System Work for All.*

to create those swap facilities,[5] with the IMF operating as a sort of second-tier institution, through a rediscount facility for those arrangements.

The GFSN should, of course, have an adequately resourced IMF at its center, which requires regular increases in IMF quotas in accordance with the growth of the world economy and the risks it faces. If past practices continue, quota increases should be complemented by credit lines from member countries to the IMF, and eventually by allowing the Fund to access international capital markets. However, a more ambitious and desirable reform would be to make a more active issue of Special Drawing Rights (SDRs), not only through regular issuances of this reserve asset and exceptional ones during crises—as was done in 2009—but in fact by making *all* IMF lending with SDRs issued by the Fund, thus making global monetary creation similar to the way central banks create domestic money. This would require eliminating the division between the General Resources and the SDR accounts and allowing countries' unused SDRs to finance IMF programs. A simple way to do so would be to treat the SDRs that countries do not use as deposits in (or lending to) the IMF, which could then be used by the institution to lend to countries in need.[6]

Careful consideration should be given, however, to the links between the IMF and the various regional and interregional institutions. In the case of swap arrangements, for instance, it is essential that they have broader coverage than at present and that they be designed as multilateral mechanisms, thus avoiding their control by major countries. In relation to regional agreements, after the 2008/09 North Atlantic financial crisis,[7] Europeans chose rescue packages that mixed resources from the IMF and the European Financial Stability Facility (the predecessor of the European Stability Mechanism). In contrast, the rule requiring an IMF program to access Chiang Mai swap lines beyond a certain limit (now 30 percent) has prevented use of this mechanism because participant countries have been unwilling to agree on any such program due to the continued IMF stigma. Curiously, the Contingency Reserve Arrangement of the BRICS countries (Brazil, Russia, India, China, and South Africa) adopted a similar rule. On the other hand, the use of Latin American Reserve Fund (FLAR,

5 The swap arrangements among developed countries' central banks and the Contingency Reserve Arrangement of the BRICS countries (Brazil, Russia, India, China, and South Africa) could also be expanded to new members.

6 See a full discussion of this issue in Ocampo, *Resetting the International Monetary (Non)System,* chaps. 2 and 7, but the basic ideas go back to those of IMF economist Jacques J. Polak, "Thoughts on an International Monetary Fund Based Fully on SDR" (Pamphlet Series No. 28, International Monetary Fund, Washington, DC, 1979).

7 I refer to it in this way rather than as the "global financial crisis" because, although its effects were global, it was concentrated in the United States and Western Europe.

according to its Spanish acronym) facilities has traditionally been delinked from IMF programs—although in several cases the programs of the two institutions have complemented each other. The links between the IMF and regional arrangements must be subject, therefore, to flexible designs—based on a "variable geometry," to use a term that has become common in relation to the world trading system.

THE VOICE AND PARTICIPATION OF DEVELOPING COUNTRIES AND THE ELECTION OF THE HEADS OF THE BWIS

In relation to the second issue—the legacy of control of the BWIs by the major developed countries—the strongest statement was made by the United Nations Conference on Financing for Development in Monterrey, Mexico, in 2002, underscoring "the need to broaden and strengthen the participation of developing countries and countries with economies in transition in international economic decision-making and norm-setting."[8] In terms of governance, the issue of voice continues to be a major gap in the IMF, in contrast to advances in accountability over the past decade and its traditional efficiency in terms of crisis response.[9]

In 2006 and 2008, the IMF adopted modest agreements to reform quotas and votes on the IMF board, which entailed a redistribution of the quotas and a tripling of the basic votes—the first such increase since the Fund's inception. In 2010 it adopted a more ambitious reform, including the doubling of quotas, a revision in the way quotas and voting power are allocated, the reduction of European representation on the IMF board by two chairs, and the decision that all of its members should be elected. The capacity of the US Congress to block this reform for five years was, nonetheless, a major problem, and should be a concern of the international community in the future.

Relative to the pre-2006 situation, the increase in the quotas (3.9 percentage points) and voting power (5.3 points) of developing and transitional economies was less than these countries expected. Furthermore, some of them experienced large gains that were, by implication, partly at the expense of other developing countries. The protection of the voting power of the poorer and smaller developing countries thus relied on the increase in the number of basic votes that had been agreed upon in 2008.[10]

8 United Nations, "Monterrey Consensus on Financing for Development" (adopted at International Conference on Financing for Development, Monterrey, Mexico, March 2002), para. 62.

9 Independent Evaluation Office of the International Monetary Fund, "Governance of the IMF: Evaluation Update" (Independent Evaluation Office, IMF, Washington, DC, 2018).

10 See Ocampo, *Resetting the International Monetary (Non)System,* chap. 6.

The reforms related to the "voice and representation" of developing countries in the IMF should, therefore, continue. Such reforms should also be pursued in relation to financial regulatory bodies—the Financial Stability Board and the Basel Committee on Banking Supervision—an issue that I do not discuss here. The current basis for the discussion of IMF quotas is a formula based on a weighted average of GDP (weight of 50 percent, with a blend of GDPs estimated at market exchange rates and purchasing power parities), indicators of openness and economic variability (30 percent and 15 percent, respectively), and international reserves (5 percent).[11] This formula is still far from capturing the relative economic weight of countries today, leading in particular to overrepresentation of Western Europe and underrepresentation of emerging and developing countries, particularly those in Asia.

The major controversies relate to the use of economic variability and openness,[12] measures that favor the smaller European economies. There seems to be a broad agreement that the measure of economic variability should be dropped. There is also a strong view that the gross measures of trade and finance that are used in the formula tend to overestimate the relative openness of economies. The growing trade in intermediate goods would favor the use of export value added rather than gross trade, and indicators of financial openness tend to favor a few international financial centers and even tax havens. Controversies also rage about the possible inclusion of lending by countries to the IMF, but such a step would further favor developed countries. Furthermore, most gains under the current formula will go again to a few emerging economies, and notably to China, whereas many other developing countries, including low-income countries, will actually lose. This imbalance underscores the importance of increasing the share of basic votes—still only 5.5 percent of total voting power—in the next and subsequent reviews of quotas and voting power.

A crucial additional issue is guaranteeing a transparent and open process for selecting the heads of the BWIs, based on the merit of the candidates and *regardless of nationality*. Although in 2009 the G20 formally endorsed the principle that the heads of all international institutions "should be appointed through an open, transparent and merit-based process,"[13] the election of the IMF managing director in 2011

11 The formula also includes a "compression factor" that reduces the dispersion in calculated quota shares.

12 For more on these controversies, see International Monetary Fund, "Quota Formula: Data Update and Further Considerations" (IMF Policy Paper, International Monetary Fund, Washington, DC, August 2014). *Openness* is defined as the annual average of current receipts and payments (goods, services, income, and transfers) during the previous 5 years, and *variability* that of current receipts and net capital flows over a 13-year period.

13 G20, "Leaders' Statement, the Pittsburgh Summit" (adopted at G20 Summit, Pittsburgh, PA, September 24–25, 2009), para. 21.

and the World Bank president in 2012, their later reelections, and the election of the World Bank president in 2019 continued to be effectively closed processes. So there is a clear need to launch really open processes that break with the tradition of having the IMF headed by a Western European and the World Bank by a US citizen.

THE NATURE OF THE MAJOR FORUM FOR ECONOMIC DECISION MAKING

An important related issue is which governance body makes the major policy decisions. During the North Atlantic financial crisis, a major step in this regard was the G20's self-designation as "the premier forum for our international economic co-operation."[14] Although the G20 is, of course, a step forward compared with the G7 in terms of representation of developing countries, ad hoc, self-appointed bodies cannot replace representative institutions in a well-structured international governance architecture.

The basic issue is, of course, the tension between the legitimacy associated with representativeness and the true power structure. Problems are also associated with the ad hoc way in which the G20 membership was defined, implying exclusion of some large countries, lack of representation of small and medium-sized countries, and (once again) overrepresentation of Western Europe. Furthermore, this system erodes the governance structures of the BWIs, which are based on a system of constituencies, with most executive directors representing groups of countries. The major problem in this regard is that the IMF board has become merely a mechanism to rubber-stamp decisions already made by the G20, without taking into account the views of less powerful IMF members.

Therefore, although "Gs," including now notably the G20, can play an important role in placing new issues on the agenda and steering changes that generate a consensus among the most influential countries, no structure of governance can generate legitimacy as long as its decision-making processes are not inclusive.

For all of these reasons, the G20 should be transformed into a more representative mechanism of international economic cooperation. In this regard, the best proposal is that of the UN Commission of Experts on Reforms of the International Monetary and Financial System, to create a Global Economic Coordination Council.[15] According to the proposal, this council would be set in the framework of

14 G20, "Leaders' Statement, the Pittsburgh Summit," Preamble, para. 19.

15 United Nations, "Report of the Commission of Experts Convened by the President of the UN General Assembly on Reforms of the International Monetary and Financial System" (United Nations, New York, September 2009), chap. 4.

the UN *system*, to which the BWIs belong, and formed on the basis of constituencies elected through weighted votes.[16] The proposals by the Palais Royal Initiative[17] to create a top global monetary policy-making body have elements in common with those of the UN Commission of Experts, but they center on designing an apex organization for the international monetary system, and thus one with less scope than the proposed Global Economic Coordination Council.

OTHER GOVERNANCE REFORMS

Other issues of governance have yet to be addressed, such as those proposed by the 2009 Committee on IMF Governance Reform and by the IMF's Independent Evaluation Office,[18] including (1) the creation of a Council of Ministers, as envisioned by the IMF Articles of Agreement, with effective powers to adopt the most important policy decisions, thus replacing the International Monetary and Financial Committee; (2) a clear redefinition of the relations between this council, the board, and management, including reorienting the board toward formulating strategy and monitoring policy implementation, rather than performing the day-to-day executive functions it now exercises; and (3) reducing the threshold of votes needed to approve important IMF reforms from the current 85 percent to, for example, 70–75 percent, to keep individual countries—that is, the United States—from having veto power. All of these reforms should be adopted.

One issue underscored by the Committee on IMF Governance Reform relates to broadening the Fund's surveillance to cover macroeconomic policies, prudential issues, and financial spillovers.[19] This is an area in which there have been significant advances since the North Atlantic crisis, through such means as new instruments of multilateral surveillance, stronger and more candid assessments of systemically important economies, and a renewed recognition of the positive role that macroprudential policies affecting cross-border capital

16 So, although designed to mirror the framework of the UN system, its voting would be structured along the lines of the BWIs, correcting, of course, for the problems of representation that these organizations face today.

17 Palais Royal Initiative, "Reform of the International Monetary System: A Cooperative Approach for the 21st Century," in *Reform of the International Monetary System: The Palais Royal Initiative*, edited by Jack T. Boorman and André Icard (New Delhi: Sage Publications, 2011), 7–26.

18 Committee on IMF Governance Reform, "Final Report" (International Monetary Fund, Washington, DC, March 2009); Independent Evaluation Office of the International Monetary Fund, "Governance of the IMF: Evaluation Update"; Independent Evaluation Office of the International Monetary Fund, "Governance of the IMF: An Evaluation" (International Monetary Fund, Washington, DC, 2008); see also the more detailed studies for this report in Leonardo Martinez-Diaz, "Executive Boards in International Organizations," in *Studies of IMF Governance: A Compendium*, edited by Ruben Lamdany and Leonardo Martinez-Diaz (Washington, DC: International Monetary Fund, 2009), 82–126.

19 Committee on IMF Governance Reform, "Final Report."

flows can play in ensuring financial stability. This trend should continue.

A major additional issue is the representation of small and medium-sized countries, including how well the constituency system works. The major problem in this regard is that directors from constituencies characterized by strong imbalances in voting power tend to consult other members of their constituencies rather infrequently, whereas, in contrast, constituencies with a better power balance among their members function better. Beyond that, it is important to adopt a special mechanism to support small and medium-sized countries. Such a mechanism could include double-majority voting for certain purposes—such as credit lines for low-income countries and even the election of the IMF managing director. It could also include a special instrument to make these countries' voices heard, notably one that would allow weak IMF members to express what they perceive as unfair treatment by Fund staff in the design of programs and Article IV consultations.

An additional issue is whether the IMF should expand its mandate, in particular to include sovereign debt restructuring, following the failed attempt to do so in the early 21st century. The lack of a sovereign debt restructuring mechanism is indeed one of the major failures of the multilateral system, and the location of such a system in the IMF could have the advantage of generating greater confidence in the mechanism among developed countries. But if this step is taken, there should be guarantees that the mechanism will operate much as World Trade Organization dispute settlement does, with total independence from the governors, the IMF board, and IMF staff who do not work in the dispute settlement mechanism, and with fixed deadlines for voluntary negotiations, mediation, and eventual arbitration.

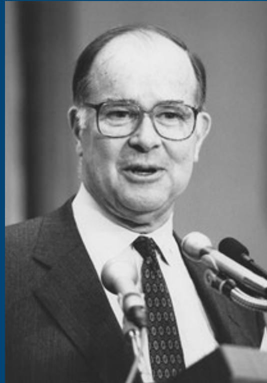
Finally, it should be said that one of the most important advances of the IMF has been the creation of the Independent Evaluation Office, perhaps the best institution of its kind in the multilateral system. This office should continue to be strongly supported. Advances have also been made in the area of transparency, through access to official IMF documents as well as publication of staff views that may in some ways express differences from or caveats with the official positions. This should also continue.

There must be a general realization that world prosperity, like world peace, is indivisible. Nations must act together to restore multilateral international trade, and to provide orderly procedure for the maintenance of balanced economic growth.

—Excerpt from a proposal for an
International Stabilization Fund
drafted at the 1944
Bretton Woods Conference

In 1983, former Treasury officials Henry Fowler and Charls Walker saw the need for an organized effort to ensure that leading citizens spoke out about the importance of the IFIs. Henry Owen, James Orr, and others took up the idea and created the Bretton Woods Committee.

World Bank President Barber Conable addresses the Bretton Woods Committee at the Annual Meeting soon after taking office in 1986.



Committee Co-chair Paul Volcker (left) confers with fellow founding member David Rockefeller on emerging-market debt issues in 1989.

In 1988, Treasury Secretary James A. Baker III describes his plans to help developing countries grow out of their debt as "the only viable long-term option."

Representative Richard Cheney tells seminar participants that an increase in World Bank funding is "doable in 1988, but it's not going to be easy."

IMF Managing Director Michel Camdessus (left), discusses the need to increase the Fund's available capital with Senator Charles Percy (right) and Margaret S. Wilson at the 1988 Annual Meeting.

Senators Paul Sarbanes (left) and Charles Mathias (center) speak with Washington Post columnist Colbert King between sessions at the 1989 Annual Meeting.

Jacob Frenkel (left), Alan Greenspan (center), and Michael Boskin discuss the pace of free market reforms at the 1991 Annual Meeting.

Stanley Fischer, First Deputy Manager of the IMF, chats with attendees at the reception of the 1998 Annual Meeting.

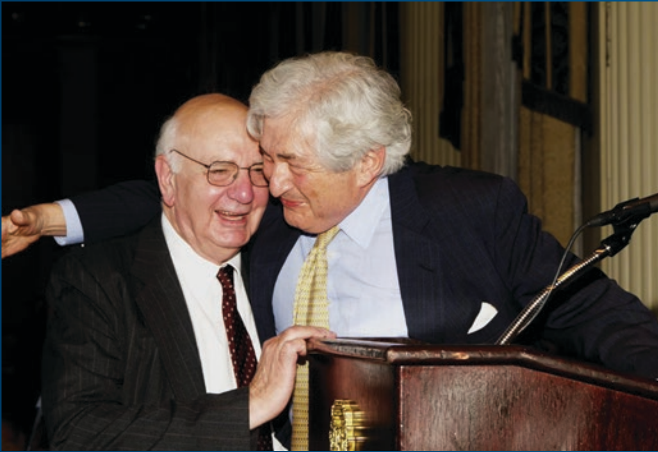
Michel Camdessus (left) and Bretton Woods Committee International Council Chair Richard Debs chat at the 1998 Annual Meeting before Camdessus takes the stage to caution against "large budget deficits and unproductive spending."

US Secretary of State Madeleine Albright outlines the Clinton Administration's second-term priorities and hopes for increased support of the IFIs by the United States.

US Treasury Secretary Robert Rubin (right) and Bretton Woods Committee Co-chair Henry Owen discuss the need for stronger IFIs and more open markets at the 1999 Annual Meeting.

Toyoo Gyohten (second from right) and other attendees stop for a photo during a 1999 luncheon.

Anne Krueger, First Deputy Managing Director of the IMF, addressing the Bretton Woods Committee in 2002.



Bretton Woods Committee Co-chair James Wolfensohn (right) awards the Global Leadership Award to longtime Committee Chair Paul Volcker in 2004.

US Secretary of State Colin Powell calls for greater multilateral engagement in the wake of the launch of the Iraq War in 2003.

From left to right, Bretton Woods Committee leaders and members gathered at Annual Meeting 2003: Richard Frank, Richard Debs, Bill Frenzel, Bill Rhodes, Jerry Corrigan, Tim Geithner, and James Orr.

Bretton Woods Committee Advisory Council member Jean-Claude Trichet addresses the Committee at the inaugural International Council meeting in 2005.

Randal Quarles (right) greets Committee Co-chair Bill Frenzel (left) at a Committee reception in 2005.

Bank of Mexico Governor Guillermo Ortiz Martínez (center) speaks at a Committee seminar on strengthening global financial system resilience in the aftermath of the global financial crisis in 2009.

At the 2010 International Council Meeting, bank regulators Mark Carney (left), Daniel Tarullo (center), and Jaime Caruana discuss the importance of the Basel III standards.

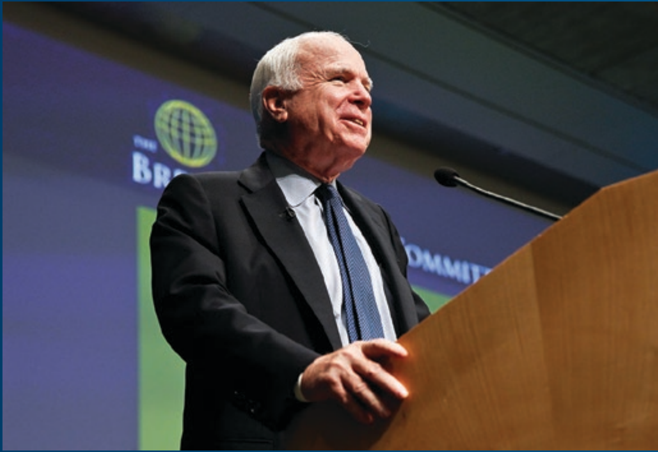
Bretton Woods Committee Executive Director Randy Rodgers (left) chats with Co-chair Henry Owen after the 2010 Annual Meeting.

Bill Dudley of the Federal Reserve describes how the United States is adjusting in the first year of the Dodd-Frank Act at the 2011 International Council meeting.

Christine Lagarde, Managing Director of the IMF, reflects on the Fund's response to the eurozone crisis.

Masaaki Shirakawa, Governor of the Bank of Japan (left); Choongsoo Kim, Governor of the Bank of Korea (center); and Kazuyuki Sugimoto, Chairman of the Mizuho Research Institute, at the 2012 International Council Meeting in Tokyo.

Jim Yong Kim (left), Christine Lagarde (center), and Paul Volcker at the 2014 Annual Meeting.



Senator John McCain discusses the importance of bolstering US leadership in the IFIs at the 2014 Annual Meeting.

George Soros addresses attendees in the World Bank's Wolfensohn Atrium at the 2015 Annual Meeting.

US Treasury Secretary Jacob Lew (right) gives his first public remarks in the aftermath of the Brexit vote to Committee guests at the 2016 Annual Meeting.

Bretton Woods Committee Advisory Council member Mohamed El-Erian (left) and Barclays Chair John McFarlane discuss how innovation and technology are disrupting the financial services sector at the 2017 International Council Meeting.

From left to right: John B. Taylor, Tharman Shanmugaratnam, Vanessa Rubio Márquez, and Clare Woodman at the 2017 Annual Meeting.

Bill Rhodes (left) and Vanessa Rubio Márquez (center) look on as Gail Kelly explains the importance of corporate governance and culture in building trust in the financial sector.

Bretton Woods@75 is launched at the 2018 International Council Meeting in Bali, Indonesia. From left to right: Thierry Déau, Thomas Bernes, Masood Ahmed, Christine Lagarde, Takatoshi Ito, and Ernesto Zedillo.

Bretton Woods Committee Co-chair Jim Kolbe (left) moderates a conversation at the 2019 Annual Meeting on WTO reform and the global trading system with Carla Hills (center) and James Bacchus.

From left to right: Larry Summers, Afsaneh Beschloss, Minouche Shafik, Nicholas Stern, and Sri Mulyani Indrawati participate in a 2019 panel discussion moderated by Josh Zumbrun on the future of the World Bank under its new president, David Malpass.

José Antonio Ocampo (left), Andrew Sheng (second from right), and Ceyla Pazarbasioglu (right) listen as former President of Liberia Ellen Johnson Sirleaf discusses the importance of participatory development programs at the 2019 Annual Meeting.

From left to right: Gillian Tett, Mark Carney, Axel Weber, and Clare Woodman discuss impacts of Brexit on the financial services sector.

US Treasury Secretary Steven Mnuchin (left) and Wall Street Journal commentator Greg Ip discuss the Trump Administration's priorities for the IFIs for 2019 and beyond.

US delegates at the Bretton Woods Conference. From left to right, standing: Assistant Secretary of the Treasury Harry Dexter White, Fred M. Vinson, Dean Acheson, Edward E. Brown, Marriner S. Eccles, and Michigan Congressman Jesse P. Wolcott. From left to right, seated: New York Senator Robert F. Wagner, Kentucky Congressman Brent Spence, Secretary of the Treasury Henry Morgenthau Jr., and New Hampshire Senator Charles W. Tobey.

Source: Bettmann/Getty Images

MULTILATERAL DEVELOPMENT BANKS IN THE NEW DEVELOPMENT LANDSCAPE

INSTITUTIONAL REFORM AT THE WORLD BANK GROUP

Staying Relevant in the Modern Era

SRI MULYANI INDRAWATI

Minister of Finance of Indonesia and former Managing Director and Chief Operating Officer, World Bank Group

Seventy-five years ago, the Bretton Woods institutions were founded with a pertinent mandate to rebuild a war-torn landscape and stabilize the financial system. It was a different world back then, and the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD)—the precursor of the World Bank Group—had specific tasks that fit with the times.

This commemoration of the 75th anniversary since the Bretton Woods Conference provides an opportune time for soul-searching. Since the establishment of the two institutions, billions have been lifted out of poverty, and economies have experienced rapid growth. These socioeconomic achievements made to date need to be safeguarded. To remain relevant in this ever-changing global environment, both the World Bank Group and the IMF need to evolve in order to deal with the new breed of development challenges of this generation.

In 2015, when all nations collectively came up with the Sustainable Development Goals (SDGs), the world was very optimistic that poverty can be reduced to almost zero in our lifetime and that all people can partake in the fruits of growth and prosperity. But given the current environment, such optimism is going to be very challenging to sustain.

Fast forward to 2019, a mere four years later, and the idea of the world speaking with one voice seems like ancient history. Cooperation seems to have been replaced by zero-sum unilateralism, and political leaders have

become increasingly preoccupied with myopic, procyclical, and populist policies at home.

After the relative peace and development progress following the end of the cold war and the fall of the Berlin Wall, the world has again descended into the geopolitical tension we see today. There is a worrying trend of nations resorting to unilateralism to advance their national interests, setting aside the rules-based multilateral system.

The foundation of international cooperation and multilateralism has been weakened and eroded so fast. Can we save the spirit of cooperation to achieve global peace and prosperity? What will the roles of the Bretton Woods institutions be going forward to stay relevant?

RECALIBRATING THE WORLD BANK GROUP, MAINTAINING THE SPIRIT OF MULTILATERALISM

As the world changes and development challenges evolve, the Bank Group needs to continuously recalibrate to stay relevant and take a leadership role in promoting development cooperation for its member countries. With globalization, economies are more interconnected, and any volatilities in the global economy will have spillover effects nationally. The world is changing rapidly in terms of its interconnectedness, economic structures, development models, technological advancement, and the role of the private sector in driving development. Cross-border issues and global public goods are fast becoming the Bank Group's bread and butter.

Flagship issues of our time, such as tackling climate change, immigration, pandemics, and global financial crises, are best addressed through a multilateral framework. On top of it all, the Bank Group needs to also assist governments in addressing within-country challenges, such as macrostability, governance, human capital, stunting, and infrastructure. Thus, the architecture of the organization needs to reflect these changing needs.

Ten years earlier, during the global financial crisis of 2008, policy makers from around the world—especially among G20 economies—had the political courage to pursue collective measures that staved off a global depression. There is no reason why the response should be any different now, and the Bretton Woods institutions should still play their role as effective interlocutors to reverse this worrying trend of unilateralism. The world needs leading global institutions to help address current and future development challenges.

For its part, as a responsible global player, Indonesia recently hosted the 2018 Annual Meetings of the International Monetary Fund and World Bank Group in Bali, where there was overwhelming agreement that the spirit of multilateralism must be kept alive. The speech of Indonesian president Joko Widodo at the opening reminded us of the danger of

unilateralism and the need to continue preserving global cooperation. The *Game of Thrones*–styled geopolitics should be avoided.

INSTITUTIONAL REFORMS, STAYING RELEVANT IN THE GLOBAL DEVELOPMENT LANDSCAPE

For one thing, the present economic landscape is no longer what it was when the Bank Group was established. The G20 nations, which represent around 80 percent of the global economy, also consist of emerging economies whose shares and voices at the Bank Group are not reflective of their current economic weight. The general composition of these shares tends to be skewed toward high-income members.

In 2010, under Bob Zoellick's presidency, the Bank Group launched a comprehensive reform package to make the institution move faster, act nimbler, and be more accountable. In addition to voice reform and capital increase, the bank sharpened its strategic focus where it can add most value, such as in targeting the poor and vulnerable and creating opportunities for growth. The institution also introduced operational reforms that included the bank's new Policy on Access to Information, the Open Data initiative, and more rigorous governance and anticorruption efforts. Zoellick also recruited a more diverse top management in the institution: three managing directors in charge of operations came from emerging and developing countries. He also mandated more gender balance by recruiting and appointing more women in the managerial and higher-level positions.

As part of the institution's voice reform, voting powers were amended to increase the voice of developing countries and emerging economies. This affects, to some extent, the decision-making process in the Bank Group's board with developing nations and emerging economies collectively owning 48 percent of the shares. Voice reform was also aimed at unlocking the financial potential and effectiveness of the Bank Group through an expansion in multilateral activity.

The Bank Group has strengthened its emphasis on tackling poverty in the world's poorest countries, especially in Africa, and in middle-income countries where many of the world's poor reside. Furthermore, with the capital increase, the Bank Group could do far more to support fragile states, highly indebted countries, and upper-middle-income nations. These reform efforts are designed to capitalize on the Bank Group's comparative advantage as a global institution.

New and improved policies with regard to environmental and social frameworks were also introduced to strengthen the Bank Group's operational safeguards. Furthermore, new lending instruments were devised in order to stay current with clients' needs. This includes the development policy operations, which take the form of loans,

grants, or credits that provide rapidly disbursing financing to help a borrower address its actual or anticipated development financing requirements. The innovative Program-for-Results, an instrument that links disbursement of funds directly to achievement of specific program results, was also launched.

In addition, the Bank Group took aim at boosting private-sector participation in development and adopted the cascade framework to maximize financing for development. The framework recommends that reforms be tried first, followed by subsidies, and then public investments to fill the investment gap. Internally, the Bank Group also instituted efficiency measures to reduce its operational budget and human resources costs.

Continuing these reforms, not long after his appointment as Bank Group president, Jim Yong Kim in 2013 introduced the institution's long-term global strategy for financing international development. The bank adopted two overarching goals as aspirational success metrics to be achieved by 2030: ending extreme poverty by bringing down the percentage of people living on less than US$1.25 a day to less than 3 percent globally and promoting shared prosperity by fostering income growth among the bottom 40 percent of the population in every country.

The Bank Group adopted a three-prong strategy to achieve these goals. First, it will support countries in delivering customized solutions by focusing on the most important challenges to alleviating poverty and vulnerability. Second, it has committed itself to work as "One World Bank Group" in order to make the most of combined resources. And third, it will maximize development impacts through developing and promoting partnerships.

As part of its institutional reform, the World Bank Group reorganized to include the creation of Global Practices (GPs) and Cross-Cutting Solution Areas (CCSAs) to promote the flow of knowledge on various sectors and thematic areas across the institution's sectors, regions, and Bank Group member countries. The strategy integrates and adds further momentum for improved extraction and curation of tacit knowledge within the institution. Furthermore, the creation of GPs and CCSAs was aimed to strengthen the Bank Group's ability to deliver integrated and evidence-based solutions to client countries based on tailoring global knowledge to local contexts. This reform created natural tensions between the need, on the one hand, to allocate staff to be closer to clients and focus on serving and understanding the client's political-economic environment better and deeper and the need, on the other, to be a global knowledge institution focusing on collecting data and knowledge across countries and have fast mobility of staff movement across regions or globally. A new country engagement model was introduced to increase selectivity of Bank Group country programs in addressing the client's development challenges by aligning the program across the Bank Group and

thus increasing efficiency and comparative advantage of Bank Group resources.

As a knowledge bank, the institution's body of work and research makes it the preeminent brain trust in development economics. Operationally, in addition to financing, the bank has provided the soft factor in terms of transferring the knowledge and management techniques critical to building any country's ability to access other sources of external financing.

A CLIENT'S VIEW OF THE WORLD BANK GROUP

I have a unique vantage point as both client and former senior management of the World Bank Group. My six-year tenure at the institution, under the presidencies of Bob Zoellick and Jim Yong Kim, convinced me that the institution needs to continuously reform in order to enhance the development impact of its work and continue to be relevant to its member countries. As part of the bank's senior management back then, I was fortunate to be involved in this organizational transformation.

As governor and chair of the Bank Group's Development Committee, I fully understood that some of these institutional reforms remain a work in progress. But as a client, I have seen how with these gradual improvements, we now have better access to global best practices and can extract their relevance in addressing our own development challenges. Indonesia could learn from Peru's successful approach in fighting stunting; at the same time the world could learn from Indonesia's accomplishments with its family planning program and also our robust macroeconomic stability and fiscal discipline. Regional and sectoral silos within the institutions were broken down in order to enhance knowledge flow and collaboration. Staff are encouraged and incentivized to work across organizational boundaries. Indeed, moving from a project mentality to a broader culture of delivering customized solutions for client countries requires a major change in mind-set. This way, the institution can bring the right global knowledge to the right clients, on the right issues, and at the right time.

My country, Indonesia, has engaged with the World Bank Group since the 1950s. Our socioeconomic history has seen us elevated from a poverty-stricken, low-income nation in the 1960s to become the confident middle--income nation we see today. Despite the slight setback experienced during the Asian financial crisis, Indonesia has now become a thriving economy with a rich development experience. Throughout our development phases, our policy makers have engaged with the international community and, at the same time, sought local wisdom to find the best solutions to our development challenges.

In 1968, the World Bank financed the first project in Indonesia and has played an important role in helping lay the foundation of the nation's economic development in the early decades of

cooperation. The bank supported the development of Indonesia's agricultural, transportation, telecommunications, power, education, health, and tourism sectors. At later stages, the cooperation expanded to sustainable development issues, such as forestry, land management, water and sanitation, and more. The World Bank also supported Indonesia's flagship community-driven development program.

With our own resources playing a more important role, the Bank Group's function as a development financier will become less. But as an emerging country with many development challenges—a young demographic population, fast urbanization, a growing middle class, and a rapidly increasing demand for energy—we need to continue improving our policy on human capital development and build efficient and clean infrastructure—including energy and designing and supporting urban development—in a more sustainable and efficient way. We also need to strengthen public–private partnerships and reform our economy to be more efficient and flexible, amidst rapid technological changes and the Industrial Revolution 4.0. Indonesia could and needs to learn from other countries as well as from multilateral development institutions, including on how to manage the transition from middle-income to high-income status and avoid the middle-income trap. These areas are where the Bank Group could offer more and better services to countries like us, beyond financial support.

Emerging economies, like Indonesia, have an important role to play in the global arena supporting, building the capacity of, and providing lessons learned to countries earlier in their development stage. As a responsible global player, Indonesia is keen to share its development experience with the world, and institutions such as the Bank Group can be an effective interlocutor in that endeavor. When our interests are aligned, there is no limit to where global cooperation can take us. Indonesia has the potential to be a development prototype that will resonate well among the developing world. Indonesia's development successes and lessons learned are worth extracting for the world.

SPIRIT OF BRETTON WOODS: THE WORLD BANK GROUP AND THE NEXT 75 YEARS

The World Bank Group should continue to serve the world as a global public good and an effective repository of development knowledge. One facet of the institution that has received scrutiny is the way in which it is governed. Although the Bank Group represents 189 member countries, economically powerful nations have greater influence within the governance structure, including in the selection of the bank's leadership, despite the fact that the main borrowers are developing countries. Going forward, this requires major soul-searching.

In the modern architecture of global finance, the World Bank Group needs to clearly define its niche due to the increasingly global nature of private capital flows and the ascendance of large emerging economies. The establishment by the BRICS countries of the New Development Bank and the China-led Asian Infrastructure Investment Bank has presented developing countries with alternative financial sources. The Bank Group continues to be the leading development institution with its comparative advantages over other institutions, such as its global presence, knowledge repository of best practices, financial acumen, leadership in global public goods, and role as a development catalyst globally. But the institution cannot afford to rest on its laurels; it needs to constantly reform and evolve with the times to continue to remain relevant.

More broadly, to unleash the full potential of the multilateral development bank (MDB) system, greater coherence and political commitment across shareholders will be required. The World Bank Group, along with other MDBs, is uniquely placed to play a central role in realizing the ambitions of the global development agenda. MDBs can support policy and institutional reforms, build institutional capacity, and enhance the quality of projects and programs, as well as scale up for transformative change.

MDBs individually and collectively need to become far more effective in improving their catalytic role and in unlocking private financing. The G20 Hamburg principles for MDB financing that were translated in the Bank Group's cascade approach form a good starting point. MDBs now need to improve their instruments and platforms for risk sharing and for mobilizing private investment and finance. Extra effort is necessary in order to bring the Billions to Trillions agenda to fruition.

The World Bank Group's real strength comes through leveraging its lending with ideas. Despite the capital increase, the Bank's resources still pale in comparison to the magnitude of funding needed by its clients. Thus, synergies with the private sector and other multilateral institutions will be key. I believe the talents within the Bank Group are ready to embrace a development solutions culture based on decades of experience and deliver evidence-based knowledge of what actually works in economic development.

To stay relevant in the next 75 years and remain the leading development institution, the Bank Group's future value may be in providing advisory assistance based on its long experience of past successes and failures. Emerging economies, such as Indonesia, have acquired their own development wisdom, and institutions like the Bank Group have the global radar to effectively use that tacit knowledge where it is needed the most.

At the same time, the Bank Group needs to have an effective antenna in addressing the new breed of development challenges. This includes addressing impacts of technological

disruptions, making human capital investments ready for the Industrial Revolution 4.0, tackling the climate change challenge, and ensuring fair taxation in the new digital economy.

The World Bank Group needs to be cognizant of global trend lines to stay relevant. Geopolitical dynamics constitute one important element; we hope leaders of tomorrow will believe in and be committed to working together to fight poverty and boost prosperity. Global demographic trends, such as aging populations in developed economies and demographic dividends in developing nations, will be important to watch. Furthermore, digital technology will further transform the world, and that transformation needs to lead to new pathways to prosperity.

When the global population reaches 10 billion, the issues of water, food, and energy security will be even more challenging. In addition, global governance of the future will be very different than what we see today, especially with the increased roles of nonstate actors and the private sector. In short, these are just glimpses of future trends; the world will be getting more complex, and the Bank Group needs to be equipped to deal with these future challenges. These global issues require global cooperation, and the spirit of multilateralism must be kept alive.

THE SPIRIT OF BRETTON WOODS, THE WORLD BANK AND THE NEXT 75 YEARS

From Where Within the Development Sphere Will Leadership on Bretton Woods Values Come?

AFSANEH M. BESCHLOSS
Founder and Chief Executive Officer, RockCreek Group, and former Treasurer and Chief Investment Officer, World Bank Group

MINA MASHAYEKHI
Senior Advisor, RockCreek Group, and former Head of Trade Negotiations and Commercial Diplomacy Branch, UNCTAD

The values of Bretton Woods were forged in the tragedy of World War II.

Humanity witnessed carnage and destruction on an unprecedented scale, and the leaders of the Allied nations were determined to never let such an atrocity happen again.

The blueprints for the International Bank for Reconstruction and Development (the core of what would become the World Bank Group) and the International Monetary Fund (IMF) were derived from several convictions.

The first was that extreme economic instability had been the tinderbox of conflict. It had given rise to the dislocation, dispossession, and grievances that led to popular resentment and a willingness to consider violence and war as solutions.

The second was a recognition of the shrinking nature of the postwar world. Technological revolutions in disparate sectors—transportation, communications, energy, and armaments, among others—had converged to make the world a smaller place. The economic fates of nations were more deeply intertwined than ever before.

The third conviction was that the good intentions and preparedness of individual nations could no longer be regarded as a sufficient safeguard against conflicts. Institutions that could bridge borders and generations were needed to serve as repositories of values, solutions, and resources. Global stability could not be derived entirely from the transient care of political leaders with fleeting mandates. It must be supported in part by independent, brick-and-mortar institutions run by public servants who could take a long view guided by dispassionate analysis.

The implication was clear: an orderly, well-financed system would be needed to deal with global economic issues ranging from development to liberalized trade to balance of payments to currency devaluations.

British economist John Maynard Keynes and Harry Dexter White, the emissary of US president Franklin Delano Roosevelt, were the intellectual architects of the new order. As White argued, "there is nothing that will serve to drive these countries into some kind of 'ism'—communism or something else—faster than having inadequate capital."

The result of their efforts, and those of countless others at Bretton Woods 75 years ago, became the World Bank and the IMF, two institutions that quickly became cornerstones of the post–World War II era.

Within years, both had established a level of proficiency that had simply not existed in any such institutions before the war. Perhaps the most vivid demonstration of their mastery of development and finance was the World Bank's financing in the late 1950s of the renowned Shinkansen project in Japan, which enabled high-speed "bullet trains" to travel between Tokyo and Osaka. The line established the global standard for rail excellence for years.

The missions of the two institutions soon expanded to encompass the developing world, a change driven in part by the cold war. But the fundamental values that have animated both have changed little since their founding. Economic stability is still regarded as a currency that purchases the opportunity for development; development is still regarded as a down payment on peace, prosperity, and the fulfillment of human potential. Indeed, development itself has come to be defined more broadly. It now includes not only growth in gross domestic product but also, as economist Amartya Sen and others have advocated for years,

broader measurements of economic performance and social progress.

THE EVOLUTION OF THE BRETTON WOODS INSTITUTIONS

The original Bretton Woods institutions have shown remarkable staying power through their ability to reinvent themselves for the prevailing needs of the times.

When the system of fixed exchange rates broke down in the early 1970s, the IMF adapted to a world in which major currencies floated against one another. During this era, the fund also started providing concessional financing to the world's poorest countries. The World Bank and IMF, meanwhile, came to recognize that macroeconomic structural adjustments—privatization, deregulation, smaller fiscal deficits, procompetition policies, and reduction of trade and foreign direct investment barriers—were necessary to buttress the effectiveness of their lending to nations.

When it was clear that massive infrastructure projects were insufficient to propel nations forward and, in some cases, were damaging to long-term value creation, the World Bank in the 1970s reoriented its mission to embrace more direct poverty alleviation. In the ensuing decades, this helped bring extreme poverty down from a global rate of roughly 50 percent in 1970 to just under 11 percent in 2018, even as world population more than doubled, from 3.7 billion to 7.6 billion. Despite this progress, of course, the ugly head of poverty and increasing inequality continues to contribute to much of the political tension we see globally. Moreover, the potential of technology to exacerbate inequality is increasing—another area in which the Bretton Woods institutions could play an invaluable role.

In the 1980s, as the complex interdependence between projects, communities, and institutions became more apparent, the World Bank gradually increased financing for environmental, social, health, and education projects.

When cross-border challenges such as environmental threats, refugee crises, and epidemics came to the fore, the World Bank devised new instruments and strategies to help preserve global public goods. While helpful, much more work needs to be done, given the increasing scale and near permanence of the refugee crisis.

As middle-income nations began to diminish their reliance on borrowing, both the World Bank and the IMF continued to engage with them by providing more technical assistance and advisory services designed to sustain their progress and concentrate on reducing poverty in lower-income nations.

Global and local capital markets have expanded dramatically in recent decades and show no signs of slowing down and increasingly are the main source of capital to emerging markets. The size of the Chinese market may soon result in China's having its own place in market indices. Developing

nations are now "leapfrogging" legacy infrastructure to adopt state-of-the-art technology. Emerging markets continue to post growth rates that are much faster than those of advanced economies. Their financial ecosystems, from mobile money platforms to sovereign wealth funds, get stronger with each passing year. Of course, despite these new capital sources, in 2008-2009 the role of the IMF and the World Bank again got enhanced as economic crises limited other sources of capital to emerging economies, reminding everyone of the critical role of these institutions. The World Bank and IMF are beginning to reorient themselves to such changes. However, greater responsiveness and faster adaptation will be necessary to carry Bretton Woods values forward on this front, including working on public goods as well as with lower-income countries on reducing poverty. They have been emphasizing efforts such as Billions to Trillions to better leverage public- and private-sector capital. There is still much work to be done in this area.

THE ROLE OF REGIONAL DEVELOPMENT BANKS

From where else will "Bretton Woods values" come in the next 75 years?

Regional multilateral development banks (MDBs) have assimilated Bretton Woods values. These MDBs—the European Bank for Reconstruction and Development, the Asian Development Bank, the Inter-American Development Bank, and the African Development Bank—have tried to serve their regions by providing capital and economic stability. They have the mandates and capacity to continue doing so. Collectively, they represent almost as much in annual financing as the World Bank. Moreover, the nations that are their major shareholders are the same nations that historically have been at the forefront of the World Bank Group's governance.

Cooperation among these institutions will be critical. Too many times in the past, the multilateral banks have competed for projects, policy mandates, or donor funding. The result has been redundancy, contradictory efforts, or dilution of impact. Fortunately, this seems to have improved in recent years.

The loosely organized Billions to Trillions movement, for example, was incubated in the World Bank Group in 2015 to mobilize more private-sector capital for development. In recent years, it has gathered steam and evolved into a formal collaboration among all MDBs to optimize resources, jointly report results, and share best practices. Cutting across a wide swath of activity, from infrastructure development to local currency financing to private equity, the initiative is already showing enormous promise, crowding ever more institutional investors into development finance. These institutions have enormous potential to leverage their resources to harness innovative applications of fintech and new financial tools and tap the new pool of capital

going into impact investing and socially responsible investing.

The regional MDBs are also increasingly providing financing for global public goods, an area in which the World Bank once operated nearly alone. The European Bank for Reconstruction and Development has made climate finance investments in 38 countries. The Asian Development Bank has a portfolio of $1.5 billion for projects and programs under its Climate Investment Funds windows. The Inter-American Development Bank recently announced a $1 billion program for climate-smart investments across the Caribbean region.

The African Development Bank is on the front line of global efforts to combat pandemics such as Ebola. It has provided $300 million for Ebola emergency and recovery programs in the affected nations and neighboring countries, and it will continue to be a key player in the campaign against HIV.

The newer MDBs—the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB), also known as the BRICS bank—are also beginning to pick up the mantle and methods of the Bretton Woods institutions. They have committed, at least in principle, to following in the World Bank's tradition of using rigorous analysis for evaluating risk and return, conducting independent evaluations to learn from experience, and sharing best practices. Of course, all these institutions, including the World Bank, could benefit from adopting broader measures of economic performance and impact. The World Bank's willingness to survey projects across disparate countries and sectors for the sake of institutional learning and knowledge-sharing has been a hallmark of its values. Starting with World Bank president Jim Wolfensohn and continuing to current leaders, the institutions have increasingly stressed transparency in the analysis and reporting of project and program outcomes, so lessons could be drawn from successes and failures.

Both the AIIB and the NDB have adopted environmental and social frameworks for their lending. The impact of climate change and pollution, among other issues, has become so pervasive that it can no longer be waved away in project planning and implementation. Moreover, both institutions have vowed to bring in private capital for co-investment, and private investors are no longer willing to assume the liabilities that accompany projects with negative environmental and social side effects.

Energy infrastructure is a case in point. The needs at the nexus of energy and the environment in the poorest nations continue to be staggering. More than 60 percent of the people in least-developed nations lack access to electricity. Four out of 10 businesses in such nations suffer from inadequate electricity. Thus, the combined forces of public, private, and MDB financing as well as public standards will continue to be critical. This is why the NDB, like others, has declared that it is an enthusiastic supporter for "sustainable infrastructure," as well as for the Paris Agreement on climate change.

THE ROLE OF DEVELOPMENT FINANCE INSTITUTIONS

Another set of institutions that could well carry the torch of Bretton Woods values is the development finance institutions (DFIs): CDC Group, Swedfund, FMO, and more than a dozen others. The Belt and Road Initiative has provided a new source of capital and, in some cases, controversy.

DFIs have a mandate to provide development lending to the private sector in the developing world. They are now coming to the fore in scale and breadth.

In October 2018, for example, the United States passed legislation to replace its DFI, the Overseas Private Investment Corporation (OPIC), with a dramatically larger agency. The new entity, the US International Development Finance Corporation, will inherit the broad mandate, portfolio, and team of OPIC. It will have double the lending authority (up to $60 billion) of OPIC as well as the ability to take equity investments and provide guarantees and loans in local currencies.

The reasons for the recent growth of DFIs are grounded in both technology and economics. Many sectors that were once the nearly exclusive domain of the public sector and MDBs—transportation, telecommunications, energy, water, consumer finance, and education, among others—are increasingly, and in some cases largely, the domain of private-sector finance.

Investor demand is another reason. Foreign direct investment and portfolio flows, in a significant and growing number of developing countries, outstrip the volume of official development assistance. DFIs, by design, catalyze these flows and seek to ensure and enhance their development impact.

By providing risk guarantees, insurance, and co-investment (equity and debt), DFIs have come to play an ever-larger role. Collectively they are growing at a faster rate than the World Bank Group and may come to rival the World Bank's lending in the 75 years ahead. By drawing on the expertise of their co-investors in the private sector, DFIs have the added advantage of being able to invest only when the market is ready.

DFIs find themselves heirs to all the aspirations and pressures that the Bretton Woods institutions have assumed for years, especially with respect to job creation in low-income countries, environmental and social concerns, and transnational impacts of investments.

CHAMPIONING THE SPIRIT OF BRETTON WOODS INTO THE FUTURE

In 1944, two institutions were imbued with Bretton Woods values. Today, dozens of institutions all over the world carry on the legacy of the founding conference. Each, in its own way, also confronts the massive, unfolding challenges of global development: the

protection of global public goods; the evolution toward a low-carbon energy regime; and the needs of the poorest nations, especially those facing crises or rebuilding after a conflict. Technology is proving to be a dual-edged sword. The phenomenal growth of the Web has enriched thousands of lives and created new economic opportunities. But roughly half the world's population remains disconnected, another source of growing inequality, particularly for women and the poor. Payment systems and financial startups are going to play an increasingly important role in some developing economies but remain beyond the reach of too many. Inclusion, especially for the products and services being generated by the dynamic startup community in emerging markets, needs to be the watchword of the Bretton Woods values.

One test of the durability of Bretton Woods values will be the degree of institutional commitment to geopolitical stability, job creation, multilateralism, transparency, and environmental and social standards. Collaboration between public sources of finance and the private sector will increasingly be the key to leveraging resources and achieving success. Further, there should be no doubt by now that Bretton Woods values have become inextricably linked with the Sustainable Development Goals (SDGs). The success of the SDGs will be a metric of success for the Bretton Woods mission. Nowhere is this clearer than with respect to SDG 10, which aims to reduce inequality, and SDG 5, which aims to eliminate gender inequality. They cut across the entire global development agenda.

Something more prosaic may be the ultimate litmus test of durability: financial and credit discipline. Whenever the importance of the Bretton Woods institutions seems to wane, a crisis comes along to prove again their unique role in the world. This was demonstrated vividly with the role of the IMF during the global financial crisis of 2007–2008. The Bretton Woods institutions have managed their balance sheets to weather tough economic times, and that has allowed them to stay true to their mission and values over the years. All those who would carry forth the Bretton Woods legacy should do likewise.

Indeed, as competition for public resources grows via the appeals of smaller development banks, sovereign wealth funds, and strategic investment funds, the Bretton Woods institutions will face a higher bar for capital replenishments. They will be obliged to make an even more compelling case for their roles. They will have to demonstrate there is more coherence and coordination to their collective efforts. A sharp pencil on the bottom line—in black ink, not red—will be a requirement. Their future and success will depend on it.

Decades ago, leaders of the Bretton Woods institutions scarcely could have imagined that regions of the developing world would exist where cellular telephones and mobile banking were more pervasive than schools or wastewater facilities. Big data, CRISPR genetic technology, artificial intelligence,

nanotechnology, telemedicine, and remote sensing have arrived. Who knows which of these technologies, or perhaps an entirely new one, will revolutionize some part of the developing world, even before the G7?

What we do know is that Bretton Woods institutions and values will need to adapt to change in every sector: infrastructure, energy, finance, natural resources, health care, and others. To be successful, the heirs of the Bretton Woods values must hew to the foundational vision for these institutions' success—capital dedicated with discipline toward the purpose of stability, peace, economic performance, social progress, and development—even as that vision is revitalized for generations to come to reduce poverty.

THE MDBs
How Governance Matters

NANCY BIRDSALL
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The founders of the World Bank at Bretton Woods created a cooperative model—the multilateral development bank (MDB)—that has proven its worth in raising resources to support development and in deploying resources, if not always ideally, then well enough.[1] Today's development challenges, captured well by the Sustainable Development Goals, include deploying billions of dollars of public capital to mobilize trillions of dollars of private capital for clean infrastructure, especially in Africa, and far greater public spending to combat the global public bad and looming development catastrophe of unchecked climate change. These challenges alone justify more capital at the MDBs as a group well into the rest of this century, as well as attention to the optimal deployment of scarce public capital among the MDBs.

A central feature of MDB governance is the system of weighted voting, in which country members' votes are closely related to their shares in the capital of the banks. Weighted voting related to capital contributions is peculiar to the MDB model compared with that of the United Nations and other international institutions; there is little doubt that the ability to borrow on the capital market backed by rich-country shareholders is what has secured the MBDs' financial sustainability compared with the non-bank institutions dependent largely on periodic voluntary contributions.

Weighted voting (and sometimes other aspects of governance, such as selection of presidents) has in that sense been key to sustaining creditors' confidence in the financial soundness of the banks, encouraging their periodic participation in new infusions of capital. At

1 For references, data sources, and additional tables go to "The Dilemma of the African Development Bank: Does Governance Matter for the Long-Run Financing of the MDBs?" available at https://www.cgdev.org/publication/dilemma-afdb-does-governance-matter-long-run-financing-mdbs.

the same time, the long-run effectiveness of the MDBs (compared especially with bilateral aid) depends as well on their effectiveness in the use of scarce capital, and therefore on the borrowing shareholders' sense of ownership, legitimacy, and trust in the institutions—something fundamental to the MDB cooperative model, if hard to measure.

In this note I explore how the shareholders of the major MDBs have, in effect, "managed" the resulting tradeoff between creditor confidence versus borrowers' sense of ownership and legitimacy. Are there lessons for shareholders about future governance?

THREE TYPES OF MDB

Table 1 characterizes six major MDBs (and, for comparison, several others) operating in developing countries as creditor-dominant, borrower-dominant, or mixed/cooperative, based on their governance structures. Of the six, three including the World Bank are creditor banks (using these simple indicators, which are not independent of each other but in these banks highly correlated). One, the African Development Bank, is borrower-dominant. The Inter-American Development Bank (IADB) is a mixed creditor-borrower bank. It is difficult to pigeonhole the Asian Infrastructure Investment Bank (AIIB). Though it looks like a mixed bank, China is its single biggest creditor, with a lower vote share than capital share, and is potentially a borrower. Assuming the government of China retains the presidency and remains the largest creditor, as does the United States at the World Bank, it will evolve more clearly as a creditor bank, with the levers and influence the United States still has at the World Bank.[2]

The mixed-governance model at the IADB has the benefit of minimizing the tradeoff between creditor confidence and borrower ownership and legitimacy, but is also the outcome of history, luck, and cooperation among all its shareholders. The United States has been the single largest shareholder since the founding of the bank and still is. At its founding, the allocation of board chairs and a system of double-majority voting ensured that the president would come from the borrowing region. In 1994 the United States sold enough shares as part of a recapitalization to allow for an increase in the shares of borrowers to 50 percent, responding not only to its own fiscal constraints but to the readiness and eagerness of the region's middle-income borrowers to increase their capital shares and thus their influence. The IADB's mixed nature has emerged as a response in part to growth of its large, middle-income borrowers and their interest in having "their" regional bank be larger.

2 Or China's strategic interest may be in attracting other middle-income borrowers to increase their capital sufficiently over time so that it becomes a global counterpoint as a model mixed bank to the creditor-dominated World Bank.

TABLE 1.
WHAT TYPE OF MDB?
CREDITOR- OR BORROWER-DOMINANT, OR "MIXED" OR CO-OP?

BANK	CREDITOR-DOMINANT			BORROWER-DOMINANT			CREDITOR, BORROWER, MIXED, OR CO-OP
	WEIGHTED SHARES	BOARD CHAIRS	PRESIDENCY	WEIGHTED SHARES	BOARD CHAIRS	PRESIDENCY	
IBRD	✓	✓	✓				Creditor
IADB	50			50	✓	✓	Mixed
AfDB				✓	✓	✓	Borrower
AsDB	✓	✓	✓				Creditor
EBRD	✓	✓	✓				Creditor
AIIB	✓		✓		✓		?[a]
EIB	✓	✓	✓				Co-op[b]
NewDB				✓	✓	✓	Co-op
IsDB			✓	✓	✓		Mixed
CAF				✓	✓	✓	Co-op

a Counting China as a creditor. See text.
b The EIB is a co-op among its European members and a creditor for countries outside of the European Union.
IBRD = International Bank for Reconstruction and Development; IADB = Inter-American Development Bank; AfDB = African Development Bank; AsDB = Asian Development Bank; EBRD = European Bank for Reconstruction and Development; AIIB = Asian Infrastructure Investment Bank; EIB = European Investment Bank; NewDB = New Development Bank; IsDB = Islamic Development Bank; CAF = Corporación Andina de Fomento.

GOVERNANCE AND LONG-RUN FINANCIAL STRENGTH: CREDITWORTHINESS AND COLLECTIVE ACTION CAPABILITY

Governance reflects and affects the MDBs' long-run financial strength in at least two ways. One is the weighted creditworthiness of each bank, shown in table 2. The "score" for each bank is the sum of individual members' sovereign credit scores weighted by their (differing) proportions of voting shares in each bank, permitting a comparison among them beyond their common AAA ratings.[3]

The African Development Bank ranks at the bottom of all six banks and, in cardinal terms, notably below the other legacy banks essentially because

3 Rating agencies still rely heavily on the high-income countries' commitments but are also aware of borrowers' ability to service MDB debt.

TABLE 2.
AVERAGE CREDIT SCORE, WEIGHTED BY VOTE SHARE

BANK	AVERAGE CREDIT SCORE, WEIGHTED BY VOTE SHARE	RANKING OF THE SIX MDBS
IBRD	72.6	3
IADB	70.5	4
AfDB	55.2	6
AsDB	73.6	2
EBRD	78.5	1
AIIB	64.4	5
EIB	83.8	
NewDB	59.0	
IsDB	54.1	
CAF	48.1	

SOURCES: Sovereign credit ratings from publicly available credit scores, and annual reports.

borrowers hold about 60 percent of all shares and almost by definition have lower scores. The AIIB's score is particularly sensitive to China's credit rating and its relatively young age as an institution; at the moment it ranks below all of the older legacy banks. The other regional banks' scores are in the same range as that of the World Bank.

A second measure of long-run financial size and strength bears on the ability of creditors and borrowers to cooperate with each other and within their groups, such as, for example, in agreeing on a recapitalization.

Table 3 shows an index of concentration of shares[4] of borrowers and of creditors in the six banks. A higher concentration of shares enhances cooperation because it encourages smaller players to free-ride, reducing the transaction costs of developing a common coalition view.

Collective action capability is particularly important in getting to "yes" on a new initiative such as increasing a bank's capital or agreeing on major new contributions. One reason MDB presidents are powerful is that once in office they have immense "yes" power in shaping and leading initiatives, including the decision to obtain new financing, compared with shareholders represented by large boards where the transaction

4 Using the Herfindahl–Hirschman index. For the MDBs, we take the sum of squares of each creditor member's and each borrower member's voting shares, in the order of shares held.

TABLE 3.
COLLECTIVE ACTION RANKINGS

BANK	RANK BY CONCENTRATION INDEX FOR BORROWERS	RANK BY CONCENTRATION INDEX FOR CREDITORS
IBRD	5	5
IADB	1	1
AfDB	2	6
AsDB	4	4
EBRD	6	3
AIIB	3	2

[a] Counting China as a creditor.

cost of getting to agreement on a new initiative is high.

Like high concentration indexes, double-majority voting for presidents of the banks is a feature of governance that encourages long-run cooperation between creditors and shareholders. Its use in some form in the regional banks compared with the World Bank does so by increasing borrower influence on the decision because regional borrowers tend to have a simple majority of unweighted country votes and can block a candidate the creditors might otherwise approve—so that such candidates are less likely to be nominated in the first place than they are at the World Bank and the International Monetary Fund with only weighted voting.[5]

Among the six banks, the IADB does particularly well on the concentration indexes in part because of the balance of weighted votes between creditors and borrowers in this "mixed" bank. It also has the advantage of a single large creditor, the United States, holding 30 percent of all shares and several large borrowers—Brazil, Argentina, and Mexico—together holding just over 30 percent of vote shares.

The African Development Bank has the lowest concentration of creditor vote shares in part because it is a borrower-dominant bank. Its top creditor, the United States, has only 6.6 percent of all shares, and its top four creditors, adding Japan, Germany, and Canada, in that order, together have less than 25 percent.

5 For example, if a majority of votes of all member countries had been required (in addition to a majority of weighted votes), Paul Wolfowitz would probably not have been nominated to be World Bank president in 2005 as borrowing members might have joined in resisting his election because of his association with the US intervention in Iraq, and so the US would have nominated someone else.

The African Development Bank's low rank among the major MDBs on the collective action indicators for creditors reflects its history as the only one of the legacy banks founded and originally owned solely by its African shareholders. A borrower, Nigeria, holds the highest percentage of shares (only 9.3 percent). Only two creditors, the United States and Japan, are among its top five shareholders, and the former colonial powers, the United Kingdom and France, have only 1.8 and 3.8 percent of votes. There is no natural creditor "champion" for the African Development Bank; its European shareholders have concentrated their financing for Africa in their own bilateral donor institutions and at the World Bank.

Except for the African Development Bank, the regional banks all do better on the creditor side than the World Bank. The World Bank's disadvantage in collective action capability is offset by the "ownership" the United States has historically taken in it since its founding at Bretton Woods, its long history, and the eagerness of its creditors for presence in the global forum on development it provides.

These two simple indicators suggest that in the medium term,[6] the structure of governance matters for the absolute and relative financial strength of the six MDBs. The borrower-dominant African Development Bank is handicapped on both market and collective action capability. The "mixed" IADB's relative weakness in market credibility is offset by its strength in collective action capability. A more general point also emerges: regional banks "compete" well compared with the older and larger World Bank in both domains but particularly in regard to the collective action indicators. The World Bank has the confidence of its major creditors; the regional banks have a greater sense of ownership on the part of their borrowers.

THE DILEMMA FOR SHAREHOLDERS OF THE AFRICAN DEVELOPMENT BANK

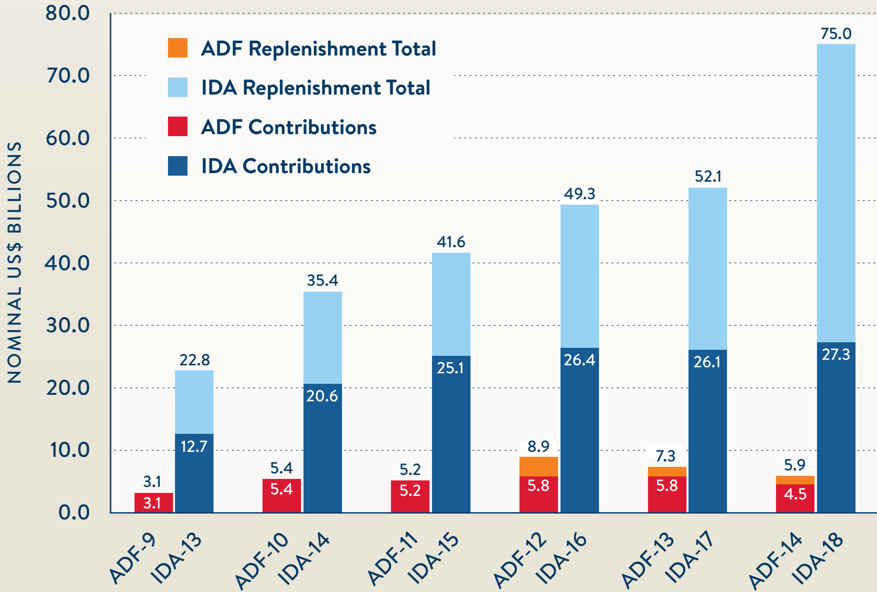
The simple measures above suggest that the African Development Bank is handicapped, particularly compared with the World Bank, in raising financial resources. The handicap is best illustrated by the situation of its concessional window, the African Development Fund (ADF), compared with the World Bank's International Development Association (IDA). The IDA currently has six to seven times more resources designated for support to African countries than the ADF has. Donor contributions (primarily from creditor countries) to the much smaller ADF have declined in absolute terms for

6 In the short term, views of the current performance of an MDB, and in particular of its leadership, also matter; in the long term the argument here is that performance and leadership are a function in part of governance structure itself.

FIGURE 1.

IDA AND ADF REPLENISHMENTS IN COMPARATIVE PERSPECTIVE

New contributions are shown in a darker color.



SOURCES: Replenishment data from IDA and ADF reports and press releases, converted using historic exchange rates data from IMF and AfDB. Replenishments occur every three years.

IDA = International Development Association; ADF = African Development Fund.

the last two replenishments (covering six years), while contributions to the IDA have grown, even as the IDA for the most recent replenishment obtained an AAA rating against its own expected future reflows and contributions (see figure 1).

Why? Donors want substantial control over the use of their contributions. But in the borrower-dominant African Development Bank, they have less influence on management, staffing, policy, and other decisions associated with day-to-day operations than at the creditor-dominant World Bank. Moreover, because their ownership is highly fragmented, they face high transaction costs when taking initiatives to raise new financing or to address internal concerns,[7] with no single or even small number of them having much skin in the game. They have sufficient

7 Creditors have concerns about such issues as attracting world-class staff following the bank's move back to Abidjan from Tunis (as do, no doubt, some borrowers) but have minimal incentives and no mechanism to take the initiative and work with the president on this kind of management challenge.

influence to say "no" to poor use of the African Development Bank resources, but they lack incentives to push for "yes" on additional resources—particularly given that they have other avenues for support to Africa as a region. In the absence of incentives to push for major changes—and in Europe perhaps aware of their colonial era misdeeds—the creditors have been content to go along and get along.

Yet without adequate financing and incentives for creditors, not just borrowers, to focus on effectiveness, the African Development Bank cannot realize fully its long-run potential comparative advantage as a regional bank in advocating for and supporting major investments in regional transport and energy infrastructure; nor can it realize its comparative advantage as the "African" bank in working with borrowers on regional programs involving several borrowers and associated risks and on the politically tough reforms central to attracting investment support and to growth and poverty reduction more generally.

CONCLUDING REFLECTIONS AND IMPLICATIONS FOR MDB SHAREHOLDERS

First, among governance models, the mixed model of the IADB has the benefit of minimizing the tradeoff between creditor confidence and borrower ownership. The mixed model is close to the original cooperative model of the founders, at the time when most of the big borrowers were in Western Europe. It encourages borrowers to maintain their own capital ownership, leveraging creditors' willingness to do the same to avoid losing influence. From the point of view of raising new capital, it has a distinct advantage: creditors have enough "yes" as well as "no" power to maintain or increase their financial support, and borrowers have sufficient influence to take initiative (and make deals) in pushing for additional financing.

The World Bank is likely to remain creditor-dominant (as is the AIIB over the long run, with China as the leading creditor). But its major creditor shareholders, including the United States, should consider the benefits of changes in the direction of the mixed model, both for raising new capital and increasing legitimacy. One step would be moving quickly to 50:50 voting (the World Bank is already close to that). More important in terms of increasing its legitimacy, *the shareholders of the World Bank should agree on double-majority voting for the election of new presidents.*

Second, aside from differences in the balance of creditor/borrower ownership, the reality is that the regional banks (the European Bank for Reconstruction and Development is an exception) tend to have more borrower ownership than the World Bank, if only because borrowers share geographic and other forms of proximity. In maintaining the basic cooperative model, their "ownership"

and legitimacy advantage will grow more important in this century assuming continued convergence of emerging-market economies toward rich-country per capita income. It is not surprising that it was the borrowers that drove the relatively larger recapitalizations at the major regional banks compared with the World Bank following the global financial crisis.[8] Also not surprising has been the creation of the AIIB and the New Development Bank in this century, and the success of the Corporación Andina de Fomento (formerly the Andean Development Corporation, now renamed the Development Bank of Latin America) in Latin America. Each of these has been driven by developing-country initiatives.

With this in mind, *the major creditor shareholders should welcome and encourage growth of capital at the regional banks for country-based lending and important regional initiatives and focus on building the financial and technical capacity of the World Bank in raising and deploying concessional resources, including to its sister MDBs, for major investments in carbon-neutral growth and other truly global public goods central to the development challenges the world faces.*[9]

Third, *the African shareholders should agree among themselves on how to reduce their formal "ownership" from 60 percent to just over 50 percent of shares—with leadership from one or two African shareholders and/or the African Development Bank president.* There would be no cost in their "yes" or "no" power, and a potential major benefit in increasing the bank's capital, in selling close to 10 percent of its shares as part of a major recapitalization to China and other nonregional current or new members. Greater consolidation of shares could be part of a bargain in which *the Europeans would agree to buying some of the additional shares, sufficient to create a creditor champion for the African Development Bank* as the United States and Japan have been historically for the IADB and the Asian banks. An initiative would have to come from the European Union, or from the United Kingdom, France, or Germany, perhaps with Canada.

8 Scott Morris and Madeleine Gleave, "The World Bank at 75" (CGD Policy Paper, No. 58, Center for Global Development, Washington, DC, 2015); Nancy Birdsall and Scott Morris, *Multilateral Development Banking for this Century's Development Challenges* (Washington, DC: Center for Global Development, 2016).

9 This is a central recommendation of the high-level panel convened by the Center for Global Development in 2016. See Birdsall and Morris, *Multilateral Development Banking,* including Appendix A and references there. That report also recommends that the common shareholders of the World Bank and the African Development Bank gradually shift IDA resources to the African Development Bank and find other ways to rebalance the role of the two banks in the short run.

DRAWING LESSONS FOR AN EVOLVING MULTILATERAL SYSTEM

JOACHIM VON AMSBERG
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For a world facing many emerging challenges amidst a changed global geopolitical reality, an expanded and improved multilateral system is needed to ensure continued cooperation between countries, contribute to global economic growth, and deliver global public goods.

The Bretton Woods institutions have for the past 75 years shown the best side of multilateralism. Their success is the result of their strong governance; their financial and business models; and importantly, the history that gave birth to them. Today, there are concerns that the same institutions have not fully adapted to the changes of the world, including the increased role and expectations of rising developing countries and the emergence of new global challenges. With an uncertain position of the United States, the key architect and backer of the Bretton Woods system of international governance, there is also a deep sense of unease that the postwar consensus to build a multilateral and rules-based order is fraying.

The establishment of the Asian Infrastructure Investment Bank (AIIB) is an effort (and by no means the only one) toward complementing and adjusting the existing system. The AIIB alone is not a panacea to cure all ills. By drawing lessons from 75 years of multilateral development bank (MDB) experience, the AIIB was founded with a different shareholder composition and a focused mandate and business model. It will play a constructive role to improve upon the existing multilateral system.

MULTILATERALISM HAS WORKED

The World Bank, founded in the mid-1940s, was the first MDB set up to

address the needs for investment and reconstruction. Since then, many regional development banks have also been set up, including the Asian Development Bank, the Inter-American Development Bank, the African Development Bank, and the European Bank for Reconstruction and Development.

Critics might argue that the loans MDBs provide are still small relative to the needs of developing countries. Yet that overlooks the fact that the loans the MDBs provide are many times the actual paid-in capital of member countries, and that is the result of a highly efficient model of financial leverage. With their strong governance, MDBs have achieved credit ratings that are higher than their borrowing members, and can thus finance their member countries at interest rates that are typically far lower than financing costs of these individual members on their own.

Beyond the financial model, the MDBs' success can be attributed to two other important factors. One, the governance model is one where multilateral political oversight is coupled with technical day-to-day management. Shareholder countries provide the broad political leadership, but day-to-day decision making is depoliticized and left to the technical experts. In the absence of a world government, this is as close to a cadre of international civil servants as one can get. Last, the Bretton Woods institutions have also become a significant source of global knowledge and expertise. The World Bank plays the role of a knowledge bank.[1] Even after the currencies' peg to gold was officially ended in 1971, the International Monetary Fund continued to play a highly important role in ensuring global financial stability.

The combination of multilateral governance, finance, and knowledge has served the world well. Notwithstanding this positive assessment, it is also clear that the Bretton Woods institutions are facing a profoundly changed world, and the system of multilateral cooperation will need to be refreshed. The remainder of the essay lays out four key challenges, possible solutions, and how the AIIB will play its constructive part.

MULTILATERALISM NEEDS TO CONTINUOUSLY ADAPT

First, *the agenda needs to move beyond poverty reduction and toward economic development and economic security.* The World Bank estimates that in 2013, 11 percent of the world's population lived below US$1.90 per day, down from 35 percent in 1990. More than a billion people had moved out of extreme poverty in the past 25 years. To be sure, the battle

1 See Martin Ravillion, "The World Bank: Why It Is Still Needed and Why It Still Disappoints," *Journal of Economic Perspectives* 30, no. 1 (2016): 77–94. The author argues that even though past efforts to create the knowledge bank had disappointed, the knowledge role of the World Bank is now in fact more important than the finances it provides to developing countries.

against poverty is not yet won (not by a long shot), but the statistics do show that not only have extreme poverty rates declined, but half of those extreme poor live in sub-Saharan African—in other words, poverty has turned into a geographically more concentrated problem. On the other hand, the lack of broad-based economic growth and economic insecurity has become a key driver of global instability. The polities of developed countries will find it increasingly difficult to support multilateral efforts to promote development in lower-income countries or to deliver global public goods when incomes in the broad middle class of advanced economies are stagnating. The irony is thus that the withdrawal of political support from developed economies could become a graver challenge to multilateralism than the inadequate representation of developing economies (the next point). Just as the Bretton Woods founders debated over the mandates of the then new institutions, we need a debate on whether multilateral institutions should reorient and play a role in promoting broad-based economic development, even for advanced middle- or high-income countries.

Second, *the political governance of institutions should reflect the changes in economic weight.* This is not a new point, and it has been obvious for some time already that today's economic realities are very different compared with those of 1944. However, voting rights adjustments have been extremely difficult to negotiate and agree on. Indeed, records of Bretton Woods discussions show that its founders too spent much time debating on the quotas each country should receive.[2] The conversation is as difficult today as it was back in 1944. As a result, the governance model of Bretton Woods institutions still lags current distribution of economic power. This has meant less political ownership by emerging economies.

Related to this is the lack of financial ownership and capital to address the many emerging challenges. "Broader MDB mandates are not matched by increasing support from shareholders" is the well-argued assessment made by a United Kingdom–based think tank.[3]

Third, *multilateral institutions need to deal with emerging global threats with an expansion of definition and focus on global public goods.* Climate change is clearly an area of global public concern and one that multilateral institutions have already devoted many resources to. MDBs have led since the early days in promoting green investments and green finance. However, there are other emerging global challenges. A list of such critical issues would include crises that result from food or water shortages, economic dislocations caused by cyber warfare or digital failures, shortages or

2 See Kurt Schuler and Andrew Rosenberg, eds., *The Bretton Woods Transcripts* (New York: Center for Financial Stability, 2012).

3 See Lars Engen and Annalisa Prizzon, eds., *A Guide to Multilateral Development Banks, 2018 Edition* (London: Overseas Development Institute, 2018).

unavailability of key medical supplies, desertification, threats to the health of oceans, and natural disasters, to name just a few. These are all potentially large, cross-border, and systemic destabilizers. Today, many of these issues are still in the domain of the private sector or individual governments. But increasingly, many of these risks need systemic multilateral solutions. It is time to rethink what global public goods are and how to bring multilateral resources to bear on addressing them.

Finally, and recognizing the very real tension between this and the previous point, there are concerns that present Bretton Woods institutions have become overly ambitious, overburdened with multiple mandates, and overstretched in their ability to deliver on these mandates. *There should be reforms toward a more focused business model.* The World Bank, for example, was formed at a time little capacity existed in many of the client governments, the private sector, and civil societies toward addressing developmental needs. As a result, the World Bank's business model is one that has multiple roles—such as providing finance, giving policy advice, building capacity, and even implementation. Today, this model risks crowding out other players. Fairly or not, the business model is also seen by some as bureaucratic and overly imposing on clients who today have much higher capacities than in the early days of the Bretton Woods institutions.

THE AIIB WILL CONTRIBUTE TO STRENGTHEN THE MULTILATERAL SYSTEM

The creation of the AIIB was informed by the 75-year experience of Bretton Woods and other MDBs. The AIIB builds on the fundamental strength of the MDB governance, finance, and business model but introduces some differences in governance, mandate, and business approach to address some of the existing weaknesses.

On mandate, the AIIB focuses on economic development by investing in infrastructure and other productive sectors. The negotiators deliberately allowed the bank a wide latitude to achieve this mandate. The bank does not have a graduation policy and can continue to finance projects in middle- or even high-income countries. This does not just allow the AIIB to serve a greater number of member countries; it also has the benefit of allowing it to enjoy project diversification (and hence reduced risk) even though it focuses on fewer sectors than do existing MDBs. In the initial years, the AIIB will focus more on core infrastructure. Over time, it is expected that other productive sectors will feature more prominently in its portfolio. This will help the AIIB support economic development of all member countries, in line with its mandate. The AIIB has also established cross-border connectivity and sustainable infrastructure as two important priorities. For financing of projects in nonregional countries, the

provision of global public goods (such as renewable energy to mitigate against climate change) will be a priority area.

Turning to the issue of governance, the AIIB's shareholder composition reflects the regional nature of the bank, with 75 percent of shares allocated to regional members. Within the regional and nonregional blocks, shares were offered to founding members according to their relative economic weight. The resulting shareholding composition is therefore reflective of current economic realities. The bank has a nonresident board that provides strategic oversight and guidance but has delegated routine project approval within specified risk limits to the president and management. The benefits are threefold: (1) it allows for a nimbler project approval process to benefit clients; (2) it allows management to be held fully accountable for the approved financings, just like in most private-sector organizations; and (3) it allows the board not to be tied down by routine project approval processes but to focus on strategic issues.

The AIIB's articles of agreement also emphasize the importance of sound banking and financial sustainability. Many implications arise from this. First, the AIIB will have to ensure that the projects it finances on balance achieve a rate of return that would not require it to seek shareholder recapitalization (that is, not result in unintended shareholder fatigue over the long run). This would mean having more financially viable projects in its portfolio, including having a sizable share of private-sector projects with commercial rates of return. Second, and related to the first implication, this would mean that the AIIB will collaborate actively with the private sector to provide a range of financing solutions. This would include providing refinancing to existing projects and investing in funds or other financial instruments, as long as it can be demonstrated that the AIIB's financing helps mobilize private capital toward economic development. Third, the AIIB will not provide concessionary finance. The bank has a special fund to help countries prepare projects, but this will be overseen by the same board and management and subjected to the same policies as the rest of the bank's financing. This will avoid the fragmentation of governance and decision making and also avoid the need for continuous fund-raising.

Finally, and not the least, the AIIB has adopted a lean business model to serve its clients. The bank serves all its clients (sovereign and nonsovereign) with one balance sheet and one staff. The AIIB will finance clients across the entire public-to-private spectrum. The AIIB has adopted and requires adherence to international environmental, social, and governance standards. By design, the AIIB's operational policies support a partnership model in project preparation and implementation. Rather than duplicating the capacity of existing institutions, the AIIB aims to work with a smaller in-house staff and establish partnerships with the public, private, and nongovernment sectors across a range of

activities from knowledge creation and business development to project preparation and implementation. It is still early in the AIIB's institution building for the effect of this model to be seen, but this leaner business and nimbler governance model is expected to bring benefits to the clients it serves.

The establishment of the AIIB provided an opportunity to reflect on the lessons of 75 years of MDB experience. The AIIB has made innovations on mandate, governance, and business model. The first three years of the bank's operations have been a very positive experience. The commitment to transparent multilateral governance and high project standards is very strong across all stakeholders. Agreement on these principles has allowed management to focus on building a "clean, green, and lean" MDB that serves the vast needs of and strong demand from its clients. The support the AIIB received from the World Bank and other MDBs and its cofinancing with existing institutions have helped greatly to establish the AIIB as a constructive partner of and complement to existing institutions. Despite some initial skepticism, there is now good reason to expect that the evolution of the multilateral system through additions such as the AIIB will strengthen the robustness and effectiveness of the multilateral system as a whole. In time, the lessons learned from the AIIB's establishment may also help inform the reform agenda of existing MDBs.

A FINAL REFLECTION

As imperfect as multilateral institutions may seem, there is no better way for countries to come together to meet common challenges. The early founders of Bretton Woods institutions keenly understood this and made the necessary compromises that set the stage for decades of postwar success. To abuse Churchill, multilateralism is the worst form of global governance, except for any other form. The uncoordinated, nationalistic, and retaliatory approaches of the 1930s are a fading but somber reminder of this. As we commemorate the 75 years of success for Bretton Woods institutions, we also have the responsibility of constantly improving on the existing system, explaining its virtues, and making the multilateral case to all its stakeholders.

EFFICIENCY DOES MATTER IN DEVELOPMENT

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In this essay I hope to bring to the subject the perspective of a development practitioner who has been fortunate to have been on both the global institutional and the domestic policy-making ends (although far more on the latter) and who is familiar with all the trials and tribulations that come with having to deal with the consequences of one's decisions years after the decisions were taken.

From 2011 to 2014, we in Saudi Arabia dealt with reforms that were somewhat typical for a developing country (labor market reform, subsidy reform, a major restructuring of the economy) but in conditions that were not necessarily typical: a long, stable political environment; decades of almost uninterrupted positive growth; and strong economic tailwinds (the luxury of being able to take a long-term view of policy, favorable world oil prices, substantial foreign exchange reserves, and a positive potential demographic window). That experience allowed me to reflect a bit more deeply about development in general and the paradigms we tend to use as development practitioners.

From that I drew two particular lessons over the years: one is the importance of institutions in devising an adequate framework for policy making and implementation, and the other is the importance of efficiency in development and the need to give it more prominence in our discourse. The first lesson is clearly the subject of this forum, and no doubt some other participants will address that lesson; so I will not dwell on it in this essay. I will, however, address the second lesson because I believe that it has been relatively neglected recently.

Let me start by giving a couple of examples, one from my own country and one from another. In Saudi Arabia,

despite a modern road network only a few decades old, the country has the unfortunate distinction of having one of the highest road fatality rates in the world. And this is not a consequence of scarce, ancient, narrow rural roads as in some of the least developed countries of Africa or Asia. Instead, it takes place within and between cities possessing modern highways built and equipped with the latest technologies. Why? Because the country lacks an efficient traffic management and enforcement system that forces safe driving behavior. This could easily be addressed by introducing such a system and improving enforcement of existing rules.

In India, I was told by a friend a few years ago, it was cheaper to import a product from another country by sea to Chennai than to get it from Delhi only about 2,000 kilometers away. Why? Because a product has to clear about 50 inspection stations on its way from Delhi to Chennai, imposing extra costs in time and money. Here again, this could be solved easily with less red tape and better logistics so that transport costs do not represent the largest cost component of the price of a product in Chennai but rather simply the same fraction of cost as in other countries.

These are just two examples of gross inefficiencies that impose significant costs on the economies of these two countries. Imagine the added growth the Indian economy would have benefited from had logistics costs been brought down to average, let alone best, international practice. And imagine the number of lives spared, health and other costs saved, and additional economic and social benefits Saudi Arabia would have enjoyed had it instituted a more efficient traffic management system.

Examples such as these abound globally. Yet developing countries seem to continue to focus primarily on a traditional development model: competing on low wages, importing technology, and trying to gradually move up the existing value chain. This model, pioneered by Japan after the Second World War, was followed with great success by the Asian Tigers and their successors, and the most recent global giant, China. While it is difficult to argue with such phenomenal successes, I would make the case that following such a model is no longer a recipe for success for developing countries for two major reasons.

The first is that such a model lacks a focus on efficiency. Getting into the value chain was traditionally done based on cheap labor. That certainly helped countries get their foot in the door, develop physical products, increase the ranks of their educated populace, and build their physical infrastructure. But cheap labor can carry you only so far. Until a country starts weighing efficiency considerations equally, by emphasizing quality as much as quantity and by moving from technology acquisition to technology generation, its advance will always be limited. It may not even be able to survive competition from a new entrant into the value chain

with cheaper labor. It will certainly not be able to innovate.

The second reason that following the traditional development model is no longer a recipe for success for developing countries is that the telecommunications revolution we have seen in the past decade, coupled with the increasingly, indeed brutally, competitive global economy, has shortened product cycles considerably. What is state of the art today becomes old in only a couple of years and obsolete after about five years. So the existing value chains may no longer exist half a decade from now. Just think of Nokia's overwhelming (and seemingly impossible to dislodge at the time) dominance of the global cell phone market and what happened to it when Apple introduced the iPhone. A country (or a company) that planned on moving up Nokia's value chain would have found itself going nowhere. The key to surviving in such an environment is to innovate—to develop new products and new value chains.

I believe that we need a shift in paradigm from our traditional economics of development to a stronger focus on the economics of efficiency. Developed countries have largely espoused this for some time, but unfortunately thinking in developing countries remains focused mainly on traditional economics of development. Efficiency is key to competitiveness and advancement for developed countries. I see no reason why it should play a less prominent role in developing countries.

At its core, efficiency is nothing but constrained optimization. As one of the basic principles of our economic thinking, it permeates almost every area we study, whether it is a particular market (labor, capital, input, output, or any other) or a particular flow (e.g., trade, credit) or even a particular cross-cutting dimension (e.g., environment, income distribution). Yet in development practice, it somehow seems to have been neglected in the past few decades. Why? I can think of a couple of reasons, although there may be others.

One reason could be that the field of development has lacked adequate data. As a policy maker, I have quite often encountered such a convenient but superficial excuse. I have always found that justification unconvincing because the people advancing it would generally not push for the logical solution in this case—namely, investing in more adequate data. Rather, their usual solution was simply to ignore the issue. Another reason for why efficiency has been neglected may be that we simply have been intellectually too lazy, opting to import facile solutions from developed-country experiences rather than develop more appropriate models emanating from conditions prevailing in developing countries.

Neither explanation means that we should continue on our path of neglecting to give proper consideration to efficiency issues. Where earlier efforts failed us, as the experience of the Washington Consensus of the 1990s taught us, was perhaps in carrying

too far a theoretically reasonable concept such as liberalization, making it a one-size-fits-all model without due emphasis on individual-country conditions or, more importantly, showing little concern for the possibility of serious conceptual flaws in that model.

When the field of economics faced major theoretical challenges in the 1930s and 1940s, it rose to the occasion by devising concepts and measurements that helped propel the phenomenal successes of the following decades. Mechanisms such as the system of national accounts and measurements of physical output, prices, and employment/unemployment all were geared toward accounting for the major economic activities of the times: agriculture and manufacturing. In my opinion, we are at a similar crossroads in development today. To understand today's economies, both developed and developing, we need systems, measurements, and data that go beyond the physical and the focus on agriculture and manufacturing. The past decade has seen significant developments in economics in this direction. This essay argues that in our attempt to come up with appropriate concepts and measurements in development we should not ignore the issue of efficiency. Rather it should be embedded in our thinking, and serious efforts should be made to come up with appropriate measurements.

In sum, what experience suggests to date is that institutions, both domestic and global (such as the Bretton Woods institutions), *do matter.* But just as important is that such institutions use a good economic framework. And a good economic framework needs to ensure that the issue of efficiency is given serious consideration, not swept under the rug because of conceptual or practical inconvenience and not pushed aside blindly as dogma. Saudi Arabia's Vision 2030 is but one recent attempt to address the weaknesses of the old model and to give efficiency its proper place in our recent design for our economic development model.

A CALL FOR A PARADIGM SHIFT IN APPROACHING SUSTAINABLE INVESTMENT

THIERRY DÉAU

Founder, Chair and Chief Executive Officer, Meridiam

How must the infrastructure investment tool kit of the multilateral development bank (MDB) system be re-envisioned to meet the vast global need to achieve the 2030 Agenda for Sustainable Development?

Infrastructure is a pillar of the MDB system, if not its historic raison d'être. One anecdote symbolizes this focus: the very first loan of the World Bank, signed in May 1947, was a $250 million loan to France to rebuild its rail sector. Financing infrastructure has of course remained a hot topic. To the pure economic development dimension, several other aspects have been added over time, ending with one of the most dramatic challenges of human history, climate change.

Achieving the Sustainable Development Goals (SDGs) by 2030 will require about US$5–7 trillion of *annual* investment across sectors and industries. However, only US$1.4 trillion is invested annually in developing countries. The annual investment gap in major SDG-related sectors in developing countries alone has been estimated at around US$2.5 trillion per year. The Organisation for Economic Co-operation and Development (OECD) estimates that for infrastructure to be aligned with a 2°C scenario, investment needs amount to US$6.9 trillion per year in the next 15 years, an increase of about 10 percent in total infrastructure investment from the reference estimate of US$6.3 trillion.

The infrastructure-financing industry, of which MDBs are a cornerstone, must adapt to these challenges. The challenge is to channel capital, that is, savings, that is primarily collected by institutional investors (e.g., life insurers and pension funds) to infrastructure investment *everywhere*.

To leverage the appetite of institutional investors for sustainable investment in infrastructure, MDBs have a critical role to play in this respect by building an ecosystem that enables mobilizing the vast amounts available for long-term investment in infrastructure with scarce public resources.

We will first draw lessons from actual projects involving MDBs and private investors across the globe and show how the MDBs' tool kit has already been partly adapted to face the infrastructure investment challenge. We will then focus on a concrete proposal to bridge the climate finance gap in developing and emerging markets. We will finally analyze what is probably the biggest hurdle in infrastructure investment—that is, lack of infrastructure development capacity—and discuss how MDBs, governments, and private players can contribute to overcome it.

LESSONS LEARNED FROM INNOVATIVE BLENDED FINANCE SOLUTIONS

"Blended finance" has become a key term in modern development finance. The concept is central in the revisiting of the MDB infrastructure investment tool kit. Blending corresponds to a strategic use of public development finance to catalyze private finance and meet policy objectives, such the United Nations SDGs, without over-relying on scarce public financial resources.

Such blending can take various forms ranging from a mix of donor funding with public and private finance to guarantees provided by development finance institutions, typically MDBs, that help to attract private investors or lenders that would have potentially shied away from much-needed infrastructure investments in, for instance, a developing country or from a project with a certain level of economic risks. Blending entails risk mitigation strategies as well as mobilization of private–capital objectives.

The fact that MDBs play a significant role in deploying infrastructure in both developed and developing countries is not novel, but discussions and debates are ongoing about which instruments to use and the best ways to leverage their resources.

This blending debate is truly a global one; it is not limited to developing and emerging markets. In Europe, an example is how the Juncker Plan has transformed the approach to the mobilization of European Union financing instruments. The setting up of the European Fund for Strategic Investments (EFSI), initiated in 2016, is an unprecedented effort in crowding in private-sector money by leveraging the EU budget and the European Investment Bank's (EIB's) financial

strength with more than €344 billion of investments triggered by the plan as of October 2018.

But more fundamentally, this plan represents a major cultural shift toward a broader de-risking philosophy. As an illustration, the European Commission used to spend its financial resources through direct subsidies to large-scale trans-European transport and energy projects. Since 2017, the Connecting Europe Facility (CEF)[1] can be deployed partly through so-called "blending calls" under which applicants can benefit from EU funding if and only if such funding is matched with private infrastructure financing.

The 2017 blending call organized by the European Commission could support new technologies and innovation projects such as electric-vehicle-charging infrastructure development, a key bottleneck to the European energy transition. Against this background, €29 million was granted to the so-called MEGA-E project. The European MEGA-E (Metropolitan Greater Areas Electrified) project is an initiative aimed at deploying 322 ultrafast charging locations including 39 multimodal charging hubs in at least 10 European metropolitan areas.

Blending also can play a key role in helping to reduce the political risk perceptions of investors and to stimulate capital market solutions in regions where such markets are still insufficiently developed to provide long-term infrastructure finance.

This is particularly critical for social infrastructure projects whose financial strength relies primarily on the capacity of the public sector to honor its commitments over the long term. In Turkey, the €360 million Elazig project comprises the design, build, finance, and maintenance of an integrated health campus with 1,038 beds for an operation period of 25 years following a construction period of 3 years. This project benefited from broad public-sector and multilateral support as part of a flagship program by the Turkish government to develop 38 new health care campuses nationwide. It has strong social rationale in a region with limited access to high-quality health care services. It included a strong focus on ESG (environmental, social, and governance) aspects and greater global sustainability throughout development. This formed the basis for the project bond's certification by the specialized rating agency Vigeo as "green and social."

Meridiam, the European Bank for Reconstruction and Development (EBRD), and the Multilateral Investment Guarantee Agency (MIGA) of the World Bank Group jointly structured a unique credit enhancement structure, enabling Moody's to assign a Baa2 rating (two notches above the rating of Turkey at the

1 The €27.4 billion CEF is a key EU funding instrument to promote growth, jobs, and competitiveness through targeted infrastructure investment at the European level. It supports the development of high-performing, sustainable, and efficiently interconnected trans-European networks in the fields of transport, energy, and digital services. CEF investments fill the missing links in Europe's energy, transport, and digital backbone.

time). The structure entailed a combination of political and contractual breach cover from MIGA with construction and operation liquidity facilities provided by the EBRD in order for the bond to remain current under extreme circumstances. Elazig is Turkey's first "green and social" project bond, aligning with the COP21 global commitment to support emerging countries' SDGs. The World Bank Group's International Finance Corporation (IFC) and Proparco supported the bond as anchor investors, further mobilizing investors from Europe, Japan, and China. The ambition is to replicate this experience of cooperation between the government, leading development institutions, and private investors in many other jurisdictions, including in Africa.

A last example of innovative blended finance corresponds to the development of solar off-grid solutions in Africa, a key contributor to access to clean electricity across the continent. Electricité de France, Mitsubishi Corporation, and Meridiam have joined forces to set up, together with French start-up NEoT Capital, a platform to finance solar home systems and microgrids for the provision of electricity to African households and small businesses.

In Côte d'Ivoire, this consortium has put together a senior debt financing package whereby a local commercial bank will finance the rollout of these assets across the country (with a target of providing access to electricity to two million people) but will share the credit risk with an international commercial lender and the African Development Bank (AfDB) under a financial guarantee scheme developed specifically for this project and to be replicated across the continent.

These examples pave the way for similar arrangements to be implemented across the globe across the infrastructure sector, broadly defined as including large-scale projects such as the Elazig health care complex as well as decentralized assets, whose financing is one of the bottlenecks constraining the much-needed global shift to low carbon. The challenge is to scale up and replicate.

REVISITING THE LUCAS PARADOX: IN DEFENSE OF AN ENHANCED GREEN MIGA OR GREEN RISK MITIGATION INSTRUMENT[2]

As explained in Lucas's seminal paper,[3] capital does not flow from developed countries to developing countries. The reality is the opposite. This macrofinancial

2 This section is to a large extent an update of an article co-authored by Thierry Déau and Julien Touati, "Financing Sustainable Infrastructure," published in 2018 in *Coping with the Climate Crisis,* edited by Rabah Arezki, Patrick Bolton, Karim El Aynaoui, and Maurice Obstfeld (New York: Columbia University Press).

3 Robert Lucas, "Why Doesn't Capital Flow from Rich to Poor Countries?" *American Economic Review* 80, no. 2 (1990): 92–96.

reality has been verified many times on the ground. Whereas raising capital to finance the low-carbon transition in Europe is relatively easy, it remains extremely difficult in Africa. How many African investors have we met who are willing to invest in the OECD only, but not in their region? We have come across a well-managed African sovereign wealth fund fully invested in listed OECD assets.

This reluctance has many roots but probably not a pure risk analysis rationale. We have observed assets offering 10 additional percentage points of return on equity—post–political risk insurance coverage costs—for a photovoltaic project compared with the same project in the North. Africa is, according to Moody's, the continent where the average default rate on project finance transactions is, by far, the lowest. In spite of that, global investors still prefer in general to pour capital into the same projects located in a few OECD countries globally. Financial regulations could be blamed for encouraging bubbles. Actually, being an OECD country opens huge pools of capital as most regulations almost systematically associate OECD countries with "low"-risk countries.[4]

This is particularly problematic when considering a global challenge such as the fight against climate change. Climate preservation is a global public good. Avoiding a ton of carbon dioxide emission in Burkina Faso should have the same collective value as doing so in Texas. But the counterparty risk is considered as being so high that investors would prefer to invest in Texas even if the premium for investing in Burkina Faso is 10 percentage points and well above the extra quantifiable risk for investing in such a country.

To a large extent, to solve that perception gap an investor willing to invest in a project located in Burkina Faso combatting climate change should face a counterparty/country risk identical to that of a Texan project. If that could be achieved through a risk mitigation instrument, it would potentially close the gap between the Paris goal to attract $100 billion a year from the North to the South and the reality of the budgetary constraints of the developed world.

Assuming that good projects exist in Burkina Faso, how can this be achieved? By creating a global risk mitigation product, easy mobilized and understood by investors, focusing on counterparty risk. Such a product could build on existing instruments that are already actionable.

This is, in particular, the case of MIGA, a World Bank Group entity that offers a long-term political risk insurance product that significantly mitigates the risk of loss of capital should a government decide not to honor a financial obligation in relation to a given contract. The Overseas Private Investment Corporation, the US development finance institution, offers similar instruments.

4 As a recent example, the Solvency II European framework for insurers evolved to introduce a specific favorable treatment for infrastructure investments, but only for assets located in OECD countries.

This works particularly well for an infrastructure project structured as a public–private partnership (which could be, for instance, the case of a wind farm receiving a tariff from a national utility over the long term). Today MIGA supplies $2.8 billion of such political risk insurance *across all sectors*. This is significant but by far lower than what is needed for the low-carbon transition in emerging markets. And the enhanced green MIGA product needs to blend both the political risk insurance with highly rated (e.g., above AA) liquidity instruments to really meet the objective of fully aligning the perception of counterparty risks in the South and the North and finally be positively rated by the main rating agencies. A first example is the above-mentioned EBRD/MIGA enhancement product offered to the Elazig green and social bond.

MCCP (Managed Co-Lending Portfolio Program) Infrastructure is another successful climate-change-driven product. Designed by the IFC, AXA, and Allianz, it has allowed the two investors to mobilize significant capital to co-invest alongside the IFC across its portfolio while benefiting from a first-loss protection of 10 percent provided by the IFC and Sida (the Swedish International Development Cooperation Agency).

Building on this risk mitigation instrument could allow significant scale-up and provide access to institutional investors with limited capacity to manage developing-country risk.

TACKLING THE REAL ISSUE: CAPACITY BUILDING TO SUPPORT INFRASTRUCTURE DEVELOPMENT

Even if risk mitigation is crucial, nothing will happen on the ground if the infrastructure development capacity gap is not bridged. Such a concept corresponds to the lack of capacity to develop complex infrastructure projects globally. This gap is one of the main reasons behind the apparent paradox of a lack of investable projects, often denounced by investors, and the huge unserved infrastructure needs.

The gap is universal and not specific to public authorities in developing economies. In developed countries, it is to a large extent the consequence of budgetary constraints that limit the capacity of governments to train and retain infrastructure specialists. This situation is even more critical in developing markets for obvious reasons.

MDBs have long spotted this issue and have helped launch several initiatives over the last decade from project preparation facilities, such as the EBRD's Infrastructure Project Preparation Facility initiated in 2015, to the launch of platforms aimed at identifying and nurturing pipelines of infrastructure investment opportunities across Europe. The Sustainable Development Investment Partnership (SDIP) platform launched in 2015 in Addis Ababa is an example of such a contribution. Its secretariat is housed by

the OECD and the World Economic Forum. Several MDBs (the IFC, the Inter-American Development Bank, the EIB, the EBRD, the AfDB, and MIGA) are members of SDIP alongside other development finance institutions and private investors and commercial lenders. It offers, in particular, project investment review by specialists whose expertise can help to improve terms for projects mobilizing blended finance.

These initiatives provide a robust base from which to unlock concrete project opportunities and are excellent examples of "soft" actions from MDBs with potentially huge impact. They are currently being complemented by other human-capital-focused initiatives. One the most recent is the Africa Infrastructure Fellowship Program (AIFP), whose objective is to bring governments and the private sector together to support an innovative capability-building program for public-sector infrastructure professionals. Supported by the French Ministry of Foreign Affairs and several MDBs, the AIFP initiative focuses on delivering practical training and support that helps facilitate better infrastructure procurement across Africa. The AIFP will deliver a program of tailored education and training for civil servants responsible for infrastructure procurement and delivery that will help drive much-needed reforms and increase the willingness and ability of the private sector to help deliver infrastructure projects.

CONCLUDING REMARKS

MDBs will not be able to bridge the infrastructure financing gap alone but can play a crucial role by putting together innovative financial schemes that leverage existing concrete experiences and have the goal of attracting private investors. Solutions exist and need to be replicated and adapted to each specific situation.

This requires expertise and persistence but also requires MDBs to undergo a profound reform to report transparently on private capital mobilized through their investments in order to adequately measure the impact of their investments according to the standards set by the UN SDGs; the banks need to tie such objectives clearly to their loan officers' rewards in order to trigger a significant culture change away from the deployment of their balance sheet as the sole key performance indicator. The shareholders of the MDBs also have a great responsibility to define their mandate toward delivering the SDGs. Coherence and determination are required from them.

We firmly believe that the most critical gap is the above-described infrastructure development capacity gap. Unless our industry mobilizes more human capital we will continue to see a large constraint on financial capital deployment.

These solutions can look anecdotal to those hoping for a magic wand or "grand soir" revolution as part of a grand vision. It is, however, our conviction that

addressing contemporary challenges such as climate change and, more widely, meeting the UN SDGs will be possible only if we keep in mind that, as the French proverb puts it, little streams make mighty rivers.

REVIVING THE SPIRIT OF BRETTON WOODS

A Development Perspective

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As the world is commemorating the 75th anniversary of the Bretton Woods institutions (BWIs), it is opportune to assess the challenges faced by the current global economic system in order to glean some guidance for reviving the spirit of Bretton Woods and harnessing international coordination of economic policy for global peace and stability. The Bretton Woods system as a platform to coordinate global economic policy has had the tremendous merit of founding a rules-based global governance system in finance and trade. This system has been for decades a driver of global growth and stability for industrial, as well as developing, nations.

Global economic crises have historically driven reforms in the global governance system. However, the 2008 world financial crisis marked the climax of doubt regarding the capacity of the current system to provide adequate governance for global markets. This crisis led to distrust in markets and raised serious questions about the role of international financial institutions, credit rating agencies, and regulators. This wake-up call has led many prominent intellectuals and world leaders to call for a serious rethinking of the current international financial system.

Skepticism about the role of international economic cooperation through the BWIs has been exacerbated by globalization, which brought opportunities especially to the developed countries but, for many developing nations, resulted in more income disparity, accentuated uncertainty, and eroded policy autonomy. Significant concerns have also been raised as to whether development aid has achieved its objectives in developing countries.

While some of the skepticism is exaggerated and may be ill founded, other concerns are legitimate. International institutions have recognized the

challenges they face and have taken significant steps toward changing their modus operandi and the ways in which they extend their assistance. Recently, the internal governance structures of the BWIs evolved to allow more voice for developing nations. However, despite these evolutionary steps, a lot more needs to be done to dissipate skepticism regarding the fairness and durability of the global governance system and to strengthen the ability of the BWIs to coordinate international economic policy.

This essay will not examine the challenges facing the current international framework for coordinating policy. Instead, it will focus on how to revive the spirit of Bretton Woods from the perspective of developing countries. In this respect, it does not claim to break new ground. I will distill my views, drawing insights from the accumulated lessons of experience as well as the contributions of prominent writers.

REVIVING THE SPIRIT OF BRETTON WOODS

The Bretton Woods Agreement was premised on the collective commitment of the global community to design a multilateral framework for international economic and financial cooperation that is sustainable and development friendly. The spirit of Bretton Woods is best exemplified by the British economist John Maynard Keynes, one of the principal architects of the Bretton Woods Agreement. During the closing session of the Bretton Woods Conference, he stressed that "it has been our task to find a common measure, a common standard, a common rule applicable to each and not irksome to any."[1] US Treasury Secretary Henry Morgenthau also stressed the cooperative spirit and public good nature of the agreements at the inaugural session of the Bretton Woods Conference: "prosperity, like peace, is indivisible. We cannot afford to have it scattered here or there among the fortunate or to enjoy it at the expense of others."[2]

From this premise, we find that the Bretton Woods spirit is about the common good and prosperity that should be enjoyed by all. The first foundation underlying this spirit is the balance between the domestic priorities of each nation and the commitment to abide by common global rules. Countries were left to march at their own pace, with ample room for policy autonomy. The global rules were not greatly discordant with domestic policies.

The paradigm shift toward "market fundamentalism" during the 1980s and 1990s, and the ensuing deep economic and financial integration, broke the

1 Keynes speech at closing plenary session of the Bretton Woods Conference, July 22, 1944, in D. E. Moggridge, ed., *Collected Writings of Keynes* (Cambridge, UK: Royal Economic Society, 1978), 26:101, 103.

2 Quoted in Harold James, "New Concept, Old Reality," *Finance & Development* 53, no. 4 (2016): 21.

delicate balance between global rules and domestic autonomy.[3] The new international financial regulations and trade rules have increasingly encroached on domestic policy autonomy.

However, implicit in the statement of Morgenthau is the responsibility of the global community to see to it that the less fortunate countries are not disadvantaged in the process. This development perspective represents the second foundation of the Bretton Woods spirit.

Today the world is evolving into a new multipolar international system. Many centrifugal forces are pushing the world away from a unified global governance system. Policies and trade arrangements have increasingly been coordinated in the context of regional integration schemes, periodic forums, and accords outside the realm of the BWIs.

Multilateral trade negotiations under the World Trade Organization have reached a deadlock, and protectionism is rising. Donor countries have been distracted by urgent problems and priorities of their own, which have affected their commitment to participating in the global efforts to provide aid to developing nations and countries in transition.

Countries have to rise above their narrow interests to revive the spirit of Bretton Woods. They need to focus on the pursuit of shared strategies and concerted actions to tackle many crucial development issues, including the negative implications of increased global interlinkages and common vulnerabilities, higher inequality of income and wealth within nations, secular stagnation and financial crises, international debt, food insecurity, barriers to labor migration, groundwater depletion, and climate change. Some of these issues may act as triggers for violent conflicts and thus represent serious threats to global peace and stability.

In the pursuit of such strategies, the international framework for coordinating policy should be more mindful of the concerns of developing countries. They should be given more voice in global decisions and better assistance in mitigating the negative impacts of globalization and international shocks. Existing mechanisms to help poor nations mitigate the effects of international shocks should be strengthened and made more systematic and transparent.

Addressing these issues requires boosting the resources and capacity of the BWIs to manage global risks. The institutions should also correct the actual imbalances, as well as help developing countries eliminate trade protection and launch innovative fresh initiatives to reduce their debt. Development aid and assistance to developing countries should be channeled where and when they are needed.

There have been numerous efforts to galvanize international policy coordination on major global issues and thereby

3 Dani Rodrik, *The Globalization Paradox: Why Global Markets, States, and Democracy Can't Coexist* (Oxford, UK: Oxford University Press, 2011).

address many of the development constraints in developing countries. The three United Nations–sponsored International Conferences on Financing for Development—in Monterrey, Mexico, in 2002; Doha, Qatar, in 2008; and Addis-Ababa, Ethiopia, in 2015—have been essential occasions to take cognizance of the challenges and delineate the required actions to meet them.

While it is crucial to bring countries together to agree on universal values and shared commitments, such efforts have to be structured in the framework of institutional arrangements whereby pledges are met and commitments are implemented. Progress should be judged by the capacity of these arrangements to provide suitable solutions to the real problems, especially in developing countries.

Reviving the spirit of Bretton Woods should involve addressing some discomforting trends about development aid. Many developed countries still fail to reach the annual target of providing 0.70 percent of their gross national income (GNI) to developing countries in the form of official development assistance (ODA), as agreed to in a 1970 UN General Assembly resolution. In 2017, net ODA provided by the members of the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD) represented only 0.31 percent of their combined GNI.[4]

Often, ODA flows reflect more the strategic interests and preferences of donor countries than the interests of the recipients. In fact, concessional aid is inefficiently allocated, in that the share dedicated to the poorest among developing nations represented, on average, only about 30 percent of total ODA provided to developing countries during the period 2010–2016.[5]

Development aid should not be used as a financial lever to open up developing countries' markets and access their resources, nor should it be tied to the promotion of donors' products and services. Aid figures that include artificially inflated technical assistance and administrative cost components are often misleading indicators of the contribution of such aid to development.

There is a need to step up efforts to reach the ODA target and to make meaningful changes in the ways in which donors' contribution to development is measured. Aid should be refocused to meet the interests and address the real needs of the recipient countries. Funds should be earmarked for the poorest nations, which are underserved by international aid and global private flows.

4 OECD, "Net Official Development Assistance from DAC and Other Countries in 2017" (Organisation for Economic Co-operation and Development, Paris, April 9, 2018), https://www.oecd.org/development/financing-sustainable-development/development-finance-data/ODA-2017-complete-data-tables.pdf.

5 OECD, *Geographical Distribution of Financial Flows to Developing Countries: Disbursements, Commitments, Country Indicators* (Paris: Organisation for Economic Co-operation and Development, 2018).

Moreover, further efforts are needed to find suitable frameworks to better coordinate aid in support of reconstruction in postconflict countries.

More serious thought should be given to automatic aid mechanisms for developing countries. Some of these mechanisms, such as remittances of tariffs levied on imports from developing countries, taxes on "brain drain" for using skilled labor from these countries, charges for the use of international flight and sea lanes, taxes on foreign currency transactions, and reduced prices, as well as more flexible patent rules for using industrial countries' technology, were suggested a long time ago but have not received sufficient credence.[6]

Nonetheless, recipient countries should be responsible for setting their development agendas and priorities. While aid can play a catalytic role, recipient countries are still responsible for mobilizing domestic resources to finance their own development. Aid should not be dispensed into a perverse institutional environment marked by lack of transparency and accountability.

In this respect, the efforts of the international donor community over the past 15 years, notably the implementation of the 2005 Paris Declaration commitments to improve aid effectiveness, are highly commended. In particular, the concerted efforts of multilateral institutions and donor countries to encourage more transparent, efficient, and accountable public sectors in recipient countries should be pursued.

HOW COULD THE BWIS HELP IMPROVE GROWTH IN DEVELOPING COUNTRIES?

Physical and human capital accumulation, as well as adoption of new technologies and better ways of organizing and combining factors of production, are essential for economic growth. However, the fundamental source of sustainable growth is institutions: their formal rules, such as regulations and laws, and their informal rules, such as customs and social norms. Historical evidence shows countries that develop inclusive economic and political institutions, and avoid the concentration of economic and political power in the hands of a few, tend to create more wealth and grow faster.[7] While institutional reform is paramount for sustainable growth, to be successful, it has to be homegrown, based on the historical and social contexts in each country.

The BWIs should make more effort to help countries adopt homegrown reforms while maintaining their respective social and political order. The

6 See, for instance, William R. Cline, *Policy Alternatives for a New International Economic Order: An Economic Analysis* (Santa Barbara, CA: Praeger, 1979); and Commission on Global Governance, *Our Global Neighbourhood: The Report of the Commission on Global Governance* (Oxford, UK: Oxford University Press, 1995).

7 Daron Acemoglu and James A. Robinson, *Why Nations Fail* (New York: Crown Publishers, 2012).

institutions should continuously strive to refine their modus operandi, adapting it to changing circumstances and aligning it with the new international development agenda for meeting the Sustainable Development Goals (SDGs). The BWIs should leave no room for determinism or single-mindedness in prescribing policies or reform agendas.

Based on this premise, a more effective way for the BWIs to help developing countries would be to strengthen their capacity to pursue reforms such as protection of property rights; reduction of transaction costs; and adoption of transparency, accountability, reasonable fiscal and monetary discipline, and adequate incentive mechanisms.[8] The BWIs should make a greater effort to help countries more effectively diagnose their economic and social challenges, identify the binding development constraints they face, and strengthen their resilience to internal and external shocks. However, countries should own and exercise leadership over their reforms, as stipulated in the 2005 Paris Declaration on Aid Effectiveness, without being burdened by stringent conditionality.

The BWIs should help developing countries create a strong base for more inclusive and sustainable growth through the mobilization of long-term funding for crucial economic and social infrastructure. They should also see to it that decisions made by developed countries and global agreements do not cause destabilizing shocks that are inimical to growth, hence reducing investments in much-needed infrastructure, education, health, and social safety nets.

IMPROVING ECONOMIC AND SOCIAL INFRASTRUCTURE

Economic and social infrastructure is recognized as key to promoting economic growth, reducing poverty, and achieving the objectives of the SDGs. Investments in the energy, transport, and telecommunications sectors are also vital to improving competitiveness in global markets.

Given the high youth unemployment rates and increasing poverty and income disparity in many developing countries, large infrastructure projects are urgently needed to generate new dynamics and economic opportunities on a massive scale. Roads, railroads, ports, and dams often generate large positive externalities to the rest of the economy and lead to the creation of many new activities and a great many new sources of income. Also, the creation of large-scale industrial and agricultural projects is an essential vehicle for achieving significant leaps in terms of economic transformation, which is an important lever for sustainable growth.

However, despite the positive impacts of infrastructure and large-scale projects, and the efforts by many international

8 Dani Rodrik, *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth* (Princeton, NJ: Princeton University Press, 2007).

institutions and development banks to mobilize financial resources, there remains an enormous financing gap for this type of project. Global investment needs for infrastructure are colossal. Recent estimates put global infrastructure needs at about US$94 billion by 2040, half of which is needed in Asia and more than 20 percent in Africa.[9] Based on current trends, global investment in infrastructure is expected to fall short of meeting the SDGs by 2030. While most of the expected gaps are in the areas of roads and electricity, the needs cut across the whole range of economic and social infrastructure. Although the investment needs of the least developed countries represent only a fraction of global needs, if adequately addressed they could have a much higher impact on the lives of millions of people.

Further investments should be encouraged in affordable basic social infrastructure services such as education, health, clean water, and sanitation. This type of investment is paramount to secure inclusiveness and meet the SDGs. In particular, investment in quality education is crucial for making a decisive leap forward and for overcoming the formidable impediments to becoming more productive and competitive in the global economy. Further investments in social infrastructure are also crucial for sociopolitical stability.

Deficient social infrastructure services are often compounded by high population growth, which leads to excess demand over limited resources. Many populous poor nations receive less than their proportionate share of concessional aid for developing social services. The needs are particularly urgent in rural areas, where the majority of the population in developing countries lives. More investment in the agricultural sector will help countries tackle many of the endemic development problems, such as rising poverty, unemployment, and inequality. Among the issues that development aid may help address in this sector are the lack of rural roads, water shortages, increasing land salinity, and declining agricultural productivity.

Over the recent past, numerous initiatives have been launched to identify financing needs and promote infrastructure investments to potential investors, especially in support of the SDGs, in addition to encouraging joint and innovative financing mechanisms.[10] However, further collaboration is needed in the area of mobilizing concessional financing. Coordination among donors and multilateral financial institutions could help countries achieve inclusive and sustainable development if sufficient

9 Based on estimates from G20, Global Infrastructure Hub (accessed Feb. 2019), https://outlook.gihub.org/.

10 These initiatives include, among others, the Global Infrastructure Forum, launched during the 2015 International Conference on Financing for Development, held in Addis Ababa, Ethiopia; the World Bank Group's initiative Maximizing Finance for Development, started in 2017; and the G20's Global Infrastructure Hub database, created in 2014.

development aid, in the form of concessional loans and grants, is allocated to support the efforts of developing countries to step up investments in economic and social infrastructure.

Multilateral development banks could deploy their financial resources to mobilize long-term concessional funds from other donors. The sectors targeted for intervention in beneficiary countries should be systematically coordinated and synchronized. This coordination also entails further efforts by multilateral development banks to reduce differences in their operating models, to streamline and harmonize their procedures, and to promote common standards for evaluating the risks and returns of large-scale projects.

CONCLUDING REMARKS

Developing countries are facing risks due to the major technological shifts and greater economic and financial integration brought about by globalization. The current global governance system is insufficiently developed to help these countries avoid crises and cope with the increased uncertainties and risks they face. Without concerted effort and collaboration on the part of the global community, these risks are likely to grow more dangerous, affecting peace and stability in the whole world.

New international cooperation and initiatives should be launched to favor the developing countries. In this regard, fresh initiatives for debt reduction and mobilization of long-term funding, especially for large-scale projects and crucial economic and social infrastructure, are needed. The BWIs are qualified to help mitigate risks and implement reforms in these countries. The spirit of Bretton Woods should call for the creation of a new global governance system that enables every country to prosper. The Commission on Global Governance stressed the importance of establishing a widely representative Economic Security Council, which would deliberate systemic global economic, social, and environmental issues.[11]

However, regardless of the form of the new global governance system, individual countries should look beyond their narrow interests and accept reasonable sacrifices in order for this system to function properly. Every country must have a voice, and no country should shrink from doing its part. This system can be viable only if it is based on a strong commitment and provides suitable solutions to the real problems of all countries.

11 Commission on Global Governance, *Our Global Neighbourhood.*

RISING ROLE OF PREFERRED CREDITOR STATUS IN RATINGS OF MULTILATERAL DEVELOPMENT BANKS

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Unlike commercial banks, multilateral development banks (MDBs) are non-depository financial institutions that rely on funding from the international capital markets.[1] As a result, they pay great attention to their credit ratings, which now increasingly depend on their preferred creditor status (PCS), also called preferred creditor treatment (PCT), without which their ratings could suffer downgrades.

PCS is accorded the MDBs by their member countries. Moody's 1991 publication *Global Credit Analysis* defines PCS as follows: "the condition of preferred creditor is an implicit accord between borrowers and lenders that loans made by these institutions receive preferential servicing and repayment treatment above other borrowing-member liabilities such as commercial bank debt."[2]

1 The author would like to acknowledge with gratitude the inputs of SCIC colleagues Roger P. Nye (who worked formerly at Moody's), Donna Davis (who worked formerly at Standard & Poor's), and Urmila Malvadkar. In addition, he would like to thank David Levey (retired Moody's sovereign and supranational analyst) and Eric Paget-Blanc, a longtime supranational analyst at Fitch, for their kind inputs. Any errors or omissions remain the author's responsibility.

2 David Stimpson, *Global Credit Analysis*, (London: Moody's Investors Service, 1991), 188.

The concept of PCS or PCT goes back to the League of Nations. However, the modern use of the term for MDBs, alternatively termed international financial institutions (IFIs) or multilateral lending institutions (MLIs), stems from the Paris Club renegotiations[3] treatment of sovereign debt obligations to IFIs as exempt from rescheduling or default. This preferred creditor status or treatment for MDBs has now taken center stage in their top credit ratings as rating agencies assess their capital adequacy in relation to their risks of credit losses. Other rating factors include the MDBs' liquidity risk and shareholder support.

At the 70th anniversary of the Bretton Woods institutions, the author was shown an early draft of the World Bank's charter, which *lacked* a key provision limiting the bank's lending and guarantees to the sum of its paid-in capital plus callable capital plus unimpaired reserves (the "one-to-one gearing" limit). Without this statutory limit, the author told the person who shared the early draft with the author (the son of the Mexican Minister of Finance in 1944) that the bank would not in his view have merited a top rating as PCS had yet to be established for MDBs. *The gearing limit was in fact inserted in the final agreement,* which enabled the bank to obtain a single-A rating in 1947 and its upgrades to double-A in 1950 and triple-A in 1959 from Standard & Poor's (S&P), before any lender had a significant PCS track record.

The World Bank's top credit ratings allowed it market access to become a major lender and guarantor. The regional and subregional development banks established since then have similarly sought high credit ratings, often with the same one-to-one gearing limit (e.g., for the African Development Bank (AfDB), the Asian Development Bank (ADB), the Inter-American Development Bank (IADB), the European Bank for Reconstruction and Development). But some MDBs do not have such limits (e.g., the International Finance Corporation (IFC), which makes loans exclusively to private corporations in developing countries, and the Council of Europe Development Bank).

The backing of callable capital on which the one-to-one gearing and hence the top ratings relied in the early days of MDBs has eroded as a foundation of their credit ratings with the widening of MDBs' member states with no or low ratings. The weight of paid-in capital and reserves (which can bear potential losses) and of liquidity as rating factors has risen, and metrics to assess asset quality—such as PCT or PCS and nonperforming loans (NPLs)—are now more critical in assessing capital adequacy.

MDBs have experienced relatively low loan losses compared to commercial banks because of their de facto PCS.

3 The Paris Club is an informal group of creditor nations whose objective is to find workable solutions to payment problems debtor nations face. As an informal group, it has no official statutes and no formal inception date, although its first meeting with a debtor nation was in 1956, with Argentina.

Accordingly, rating agencies have long recognized the importance of PCS or PCT in protecting the MDBs' asset quality. The approaches of all three agencies on PCS were broadly similar until the last decade. PCT has, particularly since 2012, taken a more critical role for MDB ratings for each agency, though in different ways. MDBs must understand these rating agency differences to maintain their credit ratings and their capital markets access.

STANDARD & POOR'S

The author wrote the agency's rating criteria for supranationals in 1980. S&P applied them to a dozen MDBs including the International Bank for Reconstruction and Development (IBRD), the IADB, the ADB, the European Investment Bank (EIB), the European Coal and Steel Community (ECSC), Eurofima, Euratom, the European Economic Community (EEC), the Nordic Investment Bank, the AfDB, and the Council of Europe Resettlement Fund, which was renamed Council of Europe Development Bank in 1999. The term "preferred creditor" first appeared in two published reports from S&P: one in April 1984 for the AfDB and the second a year later for the World Bank.[4] The term was first enshrined in S&P's supranationals rating criteria in October 1985, which the author also wrote.

PCS in S&P Criteria of 2008

The 2008 S&P rating criteria continued the agency's focus on financial performance and shareholder support. But 2008 witnessed the first S&P warning on PCS:

> Much of the good performance of the MLIs' sovereign loan portfolios is the result of the preferred creditor treatment generally accorded them….This has taken on a broader meaning and is now misunderstood by some to mean that MLIs with preferred creditor status will not suffer defaults on sovereign and sovereign-guaranteed loans.[5]

2012 S&P Criteria: PCT and Single-Name Concentration Drive Capital Ratio Model

In 2012, S&P introduced an MDB economic capital model for supranationals, called the risk-adjusted capital (RAC) ratio, which placed PCT and single-name concentration (SNC) assessments at its center. The model incorporated

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4 The 1984 S&P report on the AfDB was authored by Mahesh K. Kotecha and Barbara Nunemaker, and the 1985 S&P World Bank report was authored by Mahesh K. Kotecha.

5 S&P Global Ratings' Credit Research, *Supranationals Special Edition 2008*, https://www.standardandpoors.com. We note here the artful use of the word "treatment" in place of "status" as the former appears discretionary and thus capable of being different for different institutions at different times whereas the latter can connote a sense of immutability.

probabilities of default (PDs) by rating, loss-given default, and risk weights (RWs) by rating—all driven by PCT—in a Basel-inspired quantitative model, using granular MDB financial data.

PCT Adjustment

S&P 2012 criteria assessed PCT in two parts: (1) qualitatively, based on the repayment record of each lender by the borrowing countries dating back indefinitely (as far back as the beginning of the institution), and (2) quantitatively, based on a multilateral debt ratio, defined as the share of multilateral debt in total external debt of each borrowing country (a method it rightly discontinued in December 2018). If very strong, PCT led to a sovereign rating uplift of the sovereign borrower by up to three notches, reducing its RWs. But this effect was often insufficient to offset the increased risk-weighted assets from the SNC adjustment plus the high risk weights, even after PCT adjustments.

SNC Adjustment Is Another Critical Factor

The 2012 RAC model included SNC adjustments based on a Basel formula devised for large commercial banks and attributed to Michael Gordy and Eva Lütkebohmert.[6] These authors warned that their formula overstates concentration risks in small portfolios (typical of MDBs). S&P's SNC adjustments were as high as 100 percent or higher for some AAA-rated MLIs, compared to the maximum cited by Gordy[7] of 3.81 percent of the exposure for banks with portfolios of 250 to 499 obligors.

Impact of PCT in S&P's 2012 Criteria

The 2012 S&P criteria led to 12 MDB rating changes (of 32 MDBs it rates) within about a year, a very rapid pace for supranationals.[8]

Some analysts compared S&P's 2012 economic capital model against a traditional Monte Carlo simulation–driven economic capital model and found S&P's RAC model more conservative.[9]

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6 Michael Gordy and Eva Lütkebohmert, "Granularity Adjustment for Basel II" (Discussion paper, Series 2: Banking and Financial Studies, No. 01/2007, Deutsche Bundesbank, Frankfurt, January 2007), table 3.

7 Michael Gordy and Eva Lütkebohmert, "Granularity Adjustment for Regulatory Capital Assessment," *International Journal of Central Banking*, (September 2013) 58, table 3.

8 S&P Global Ratings' Credit Research, "Supranationals Special Edition 2013" (New York: March 11, 2014), 7–9. Report describes the rating changes: "despite six ratings changes following our updated (2012) MLI criteria, four additional ratings changes in the last three quarters of 2013, and two rating changes during the first half of 2014, supranationals' credit quality has remained broadly stable over the longer term."

9 See William Perraudin, Andrew Powell, and Peng Yang, "Multilateral Development Bank Ratings and Preferred Creditor Status" (Inter-American Development Bank Working Paper, No. 697, July 2016).

To relieve RAC pressures, the AfDB, the World Bank, and the IADB undertook a sovereign exposure exchange for diversification benefits. The AfDB followed up with its pioneering Room2Run transaction, synthetically transferring a part of the risk of its private-sector loans to investors. S&P's RAC model facilitated quantification of the balance sheet benefits. The benefits were also recognized qualitatively by Moody's and Fitch.

PCT in 2018 S&P Criteria

Based on market feedback, S&P reduced the severity of both its PCT and SNC adjustments in December 2018. But S&P continues to use the problematic Gordy formula for SNC, on the basis that other methods (e.g., Herfindahl–Hirschman index or Monte Carlo simulations) are no better for its purposes.

Under its 2018 criteria, S&P determines PCT primarily on the basis of the MDB's 10-year average arrears on sovereign loans (principal or interest past due more than 180 days as a percentage of the total of such loans),[10] adjusted by S&P expectations, including for the net flows of funds to the country from the lender.[11] It has dropped the use of its multilateral debt ratio.

The market has welcomed S&P's new criteria, including its cap on the PCT-adjusted PDs used for SNC adjustment, with a floor of a B− rating for the lowest-rated countries, intended to limit RAC ratio volatility. Only about a third of the MDBs' S&P rates have been reviewed under the new criteria (as of mid-March 2019).[12]

10 S&P's decision to use both principal and interest past due in measuring arrears penalizes institutions that have chronic sovereign arrears from fragile states (like Zimbabwe) whose payment problems reflect political instability or prolonged economic mismanagement or both and thus an inability to pay rather than a lack of willingness to accord preferred creditor treatment. Using arrears data assesses both PCT and PD together, with the interaction between the two and the unique impact of PCT separate from PD not specifically addressed.

11 "Net flow" reflects the net of financial inflows and outflows between a sovereign and an institution. A positive net flow in this instance means the sovereign is receiving more funding from the institution than it is paying out to service debt to the same institution. Net flows were not considered explicitly in the old criteria.

12 As of March 9, 2019, nine MDBs are rated triple-A by each agency and two are rated double-A plus (or Aa1, the Moody's equivalent). Of five other MDBs rated by all three agencies, Moody's and Fitch rate two higher by two notches (EU and Corporación Andina de Fomento [CAF]), two by one notch (the European Financial Stability Facility and IFFIm), and Moody's rates IDB Invest higher by one notch and Fitch by two notches than S&P. Of 16 MDBs rated by only two agencies, Moody's does not rate one, Fitch does not rate eight, and S&P does not rate seven.

MOODY'S HISTORICAL APPROACH TO PCS

According to a former rating executive of Moody's, PCS was a key factor in MDB ratings from 1985 onward. But the process of evaluating the degree of confidence in the strength of PCS in any particular case was one of discussion within rating committees. There were no specific targets or thresholds for NPLs or other quantitative indicators. It was a more qualitative, judgmental process than in recent times. Moody's certainly looked then as well at the long-term averages of NPLs and saw lending to private borrowers (as, for example, for the IFC) as riskier than lending to public entities, but it also took into account the political stability of the relationships between major borrowers and the MDB in question.[13]

PCS in Moody's 2011 Criteria

Though PCS was thus considered earlier by Moody's, an unpublished Moody's PowerPoint presentation to Structured Credit International Corp. and a mutual client in September 2011 refers to PCS as follows:

- As supranational institutions, they benefit from unusual privileges and immunities:
- [Their] rating [is] not necessarily bound by the country ceiling of the country in which they are headquartered [absence of interference]
- Preferred creditor status results in a demonstrated enhancement of their asset quality

PCS in Moody's 2013 and 2018 Criteria

Moody's criteria from 2013[14] provide the following rationale for PCS:

> One reason that governments treat these entities as their most senior creditors is that these institutions are not just another source of finance for them. In a situation of sovereign stress or general credit market disruption, an MDB or other supranational may be the only available source of external finance. Even though some governments have defaulted on payments to supranational organizations, preferred creditor status is a proven enhancement to supranational asset quality. (p. 6)

While paying heed to PCS as a market practice, Moody's hastens to add in the 2013 criteria that a seven-year

13 From a recent email to the author from David Levey, a former managing director of Moody's for sovereign and supranational ratings.

14 Moody's, *MLI Rating Criteria for Multilateral Development Banks and Other Supranational Entities* (December 16, 2013), https://www.moodys.com/research/Multilateral-Development-Banks-and-Other-Supranational-Entities--PBC_161372.

average NPL ratio best captures the benefits of PCS:

> Assessing potential losses entails evaluating the track-record of asset performance. A commonly used ratio, non-performing assets as a percentage of total loans illustrates historical loan portfolio performance.... We do not consider the performance of equity investments in this measure. Given that the ratio provides a static, point-in-time description of loan performance, we use a seven-year average of the ratio such that we look beyond a particular cycle (whether positive or negative). (pp. 11–12)

It uses the following key criteria language in 2013 on NPLs and PCS:

> Rather than make possibly inaccurate assumptions regarding the benefits of PCS on asset quality, we choose to include the NPL indicator, which captures the reality of the benefit on asset quality. PCS has a varying impact on an MDB's asset quality based on which sector it lends to, with public sector loans benefitting more significantly than private sector loans. As a result, it is common to see MDBs that lend to the private sector with higher NPL levels while many institutions that lend to the public sector have zero or very low NPLs. (p. 12)

Moody's September 2018 criteria repeat the above 2013 language verbatim, continuing the practice of using the NPL ratio averaged over the last seven years to measure PCS.[15]

Moody's 2019 Request for Comment

Moody's January 4, 2019, request for comment (RFC) proposes to depart from this practice, dropping the 2013 language cited in the last but one paragraph above and proposing to provide, based on PCS, an uplift of three notches in the MDB's "estimated borrower quality," like Fitch.

Specifically, Moody's proposes that for MDBs with operations heavily geared toward sovereigns (typically more than 75 percent of total development assets) it should use a PCS uplift to its estimate of average borrower credit quality. If (1) the MDB has a track record of no arrears or (2) the supranational is being paid despite the borrower's defaulting on other creditors, Moody's proposes typically to incorporate some uplift, by one "alpha score maximum (e.g., from

15 Moody's, *MLI Rating Criteria for Multilateral Development Banks and Other Supranational Entities* (September 17, 2018) p. 12, http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_1137185.

B to Ba)"[16]—that is, three notches—to its estimate of borrower credit quality.

The RFC also proposes to include as nonperforming assets impairments or losses on equity investments and called guarantees.[17] Furthermore, Moody's proposes to shift from the seven-year average to the weaker of (1) the NPL ratio based on the most recently reported annual period and (2) the average ratio for the three most recently reported annual periods.

Moody's has yet to finalize and publish its new criteria after the RFC as of this writing.

FITCH CRITERIA—2005 TO PRESENT

Fitch Cites PCS as Far Back as in Its 2005 Criteria

Per Fitch's 2005 supranationals criteria (p. 1), "Fitch uses the ratio of usable capital to required capital" for MDBs, where (1) "usable capital is defined as shareholders' equity plus callable capital of non-borrowing member countries and countries rated 'AA–' or higher" and (2) "required capital is equal to the expected loss of an MDB's entire portfolio. To compute this figure, Fitch uses the default probabilities associated with the ratings of the Banks' assets, with a credit uplift to reflect the MDB's preferred creditor status." This is done, as the report notes on page 7, "by adding three notches to the rating of sovereign exposures," with the uplift assessed on a country-by-country basis.[18]

The use of the three-notch upgrade for PCS by Fitch is thought to have originated as early as 2000 and continues to be used today. The ratio of "usable capital" to "required capital" initiated then had continued until about five years ago. In May 2012, Fitch introduced a scoring model for the first time when it also moved the term "required capital" and the synonymous term "expected loss" outside the scoring model to Appendix 2, a practice it continued until 2015, after which it dropped all three terms. Instead, the scorecard used the ratios of (1) "shareholders' equity" (newly defined to exclude callable capital entirely) to total assets and (2) paid-in capital to subscribed capital. Fitch intended this change to signal its greater focus on paid-in capital at a time of an increasing reliance by MDBs on callable capital, with less and less being paid in.[19]

16 Moody's, *Request for Comment on Proposed Update: Multilateral Development Banks and Other Supranational Entities* (January 4, 2019), 9, https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_1147817.

17 Under the September 2018 Moody's criteria, the numerator includes loans and loan guarantees with interest or principal payments overdue by 90-plus days to ensure comparability across entities, excluding the performance of equity investments, which the RFC proposes to include.

18 FitchRatings, *Multilateral Development Banks: Rating Criteria and Industry Review* (June 2005), http://globalclearinghouse.org/infradev/assets/10/documents/Fitch%20-%20Mutlilateral%20Development%20Banks%20Rating%20Citeria%20and%20Industry%20Review%20(2005).pdf.

19 Based on a recent conversation with Eric Paget-Blanc, a Fitch executive.

The terms "expected loss" and "required capital" when used (roughly from 2005 to 2015) were justified by Fitch as follows: "the MDB sector is increasingly using the term 'required capital' to monitor and report the level of capital relative to risks. For loans, guarantees and debt securities, the required capital is expected credit loss (ECL) defined as the exposure at risk (EAD) times the default probability (PD) times the loss-given default (LGD). *To take into account preferred-creditor status, Fitch notches up the ratings of loans to or guaranteed by sovereigns by three notches.* The rationale for the three-notch uplift rests on a statistical analysis on sovereign defaults to supranational institutions conducted by Fitch"[20] (emphasis added).

The required capital-to-expected loss ratio was in effect a simple capital model but did not take account of correlations or unexpected losses and did not use Monte Carlo simulations, which are widely used in economic capital models but are computationally difficult. The ratio was dropped after 2015 when the agency moved to a regulatory-style building block method for what it calls the intrinsic rating of an MDB, based on the lower of its solvency assessment (as adjusted for operating environment) and liquidity assessment, with a possible uplift for shareholder support.

Fitch's latest supranationals criteria—published in May 2018—continue the maximum three-notch uplift for the average rating of sovereign loans and guarantees.[21] But Fitch for the first time bases the uplift on a four-point assessment of the MDB's PCS: an excellent PCS merits a three-notch uplift, a strong PCS a two-notch uplift, a moderate PCS a one-notch uplift, and a weak PCS no uplift.

The agency notes in the 2018 criteria that a three-notch uplift would typically be assigned to those MDBs having not only a strong record of low relative default rates on sovereign loans but also a very low share of nonsovereign exposure in their portfolios.

Fitch Study on Preferred Creditor Status (October 2018)

In October 2018, Fitch published a report surveying the PCS for selected MDBs. It plans to update its MDB criteria in 2019 and could apply more specific metrics to PCS assessments by country and/or MDB based on the study.

The study finds that the strength of PCS "varies across MDBs, and also

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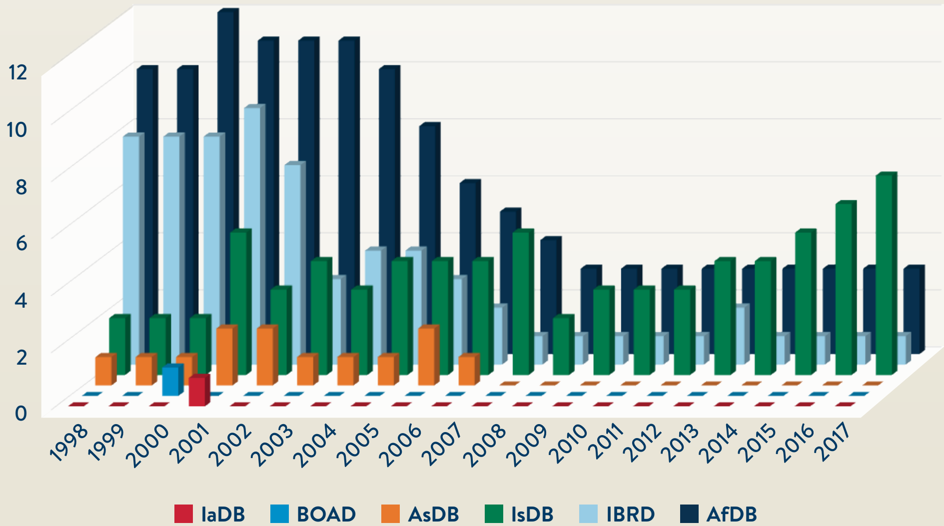
20 FitchRatings, *Supranationals Rating Criteria* (May 22, 2014), 12, https://www.fitchratings.com/site/re/748877. This period also reflected a subtle shift from an uplift of the rating of "sovereign exposures" on a country-by-country basis to an uplift of the "ratings of loans to or guaranteed by sovereigns by three notches" on a portfolio basis, partly for computation ease.

21 FitchRatings, *Supranationals Rating Criteria* (May 24, 2018), https://www.fitchratings.com/site/re/10031448.

FIGURE 1.
SOVEREIGN DEFAULTS TO MDBS, 1998 TO 2017



SOURCE: Reproduced from FitchRatings, *Preferred Creditor Status* (October 11, 2018), 9, https://www.fitchratings.com/site/re/10048061.

AfDB = African Development Bank; IBRD = International Bank for Reconstruction and Development; IsDB = Islamic Development Bank; AsDB = Asian Development Bank; BOAD = West African Development Bank; IaDB = Inter-American Development Bank.

evolves over time" (see the reproduced chart in figure 1).[22] Specifically:

- Fitch finds clear differences between MDBs in terms of repayment performance, with the AfDB and the Islamic Development Bank more exposed to sovereign defaults than their peers.
- It finds that PCS depends in part on the credit quality of the borrower.
- It notes that sovereign defaults depend also on funds received by a sovereign entity via the Heavily Indebted Poor Countries (HIPC) Initiative, the lender's soft loan window, or other sources to cure defaults.

To assess capital adequacy, Fitch looks not only at PCS but also at concentration risks, impaired loans, and the share of equity risks and compares asset quality to the level of capital.

22 Ibid. The variation in sovereign defaults shown in this figure could result from economic or political stress, volatility in ratings and their associated probabilities of default, or variation in PCS.

CONCLUSIONS ON THE IMPACT OF PCS/PCT ON RATINGS

PCT or PCS has been an established feature of supranational credit analysis, but its impact on ratings has grown for all three rating agencies. S&P's quantitative approach of 2012 was criticized as overly conservative. Its December 2018 criteria are less severe, but their impact has yet to be fully felt: S&P now may uplift an individual sovereign rating by up to four (rather than three in the past) notches to apply the PDs and RWs for the RAC ratio.

This compares with a PCS uplift of three notches for a long time by Fitch, first on a country-by-country basis and then for the average borrow rating. Moody's has proposed for the first time a similar uplift of an MDB's average borrower rating of up to three notches in its January 2019 RFC, departing from its use of a seven-year NPL ratio that it thought captured PCS.

With a modest easing of highly conservative rating criteria, S&P may attract new MDB rating mandates.[23] But the upgrade of the Central American Bank for Economic Integration (CABEI) from A+ to AA on account of improved PCT[24] and a downgrade of the Corporación Andina de Fomento (CAF) from AA− to A+ on account of deteriorating PCT[25] suggest that S&P ratings volatility for

23 The 2018 S&P criteria may lead African subregional MLIs (e.g., West African Development Bank, Afreximbank, and Trade and Development Bank) to consider S&P ratings, which they currently do not have. The PCT of such institutions can be strong because (1) the member states of the subregional MDBs typically have a larger percentage shareholding than they do in regional or global MDBs, (2) the share of multilateral debt of member states sourced from the subregional MLI they own is likely to be comparable to that from the regional or global MLIs, and (3) member states are likely to feel a greater degree of commitment to pay "our bank."

24 CABEI's S&P rating was upgraded by two notches from A+ Positive to AA Positive on account of "solid preferred creditor treatment" that is "reflected in an improved enterprise risk profile, which supports the bank's capital position." The bank has been successful in expanding its mandate and increasing its membership base with the most recent incorporation of the Republic of Korea. CABEI is now the highest-rated credit in Central and Latin America.

25 Reflecting the conditions in Venezuela, the S&P rating of CAF was one of the first to be reviewed under the new criteria and was downgraded to A+ Negative from AA−, reflecting S&P's revised criteria for rating multilaterals combined with its expectation of weakened PCT as conditions in Venezuela—one of CAF's largest borrowers—continue to deteriorate.

subregional MDBs may in the future be highly sensitive to changes in PCT.[26]

Implications for MDBs

The top credit ratings of MDBs are critical for their continued market access at low rates. Given the greater role of PCT and PCS now for all three rating agencies, MDBs need to pay more attention to safeguarding their preferred creditor status or treatment. So MDBs need to reduce chronic arrears from such countries as Zimbabwe, among others, as principal and interest past due may both be counted as arrears, as S&P does.

On the horizon also lurk shifts by all three rating agencies to more conservative metrics for liquidity risk assessments of MDBs.

A benefit of a granular capital adequacy assessment using PCT, SNC, and other quantitative measures has been the ability of some MDBs to engage in balance sheet management transactions, the role of which is likely to grow given a greater interest by major donors and shareholders in sustaining MDB lending for longer without the need for capital increases. But the cost is potentially higher MDB ratings volatility.

26 By April 12, 2019, S&P had applied its new criteria to all 32 supranationals it rates (see the S&P repost of April 12, 2019, "What Our New Criteria Has Meant for Multilateral Lending Institutions" at https://www.capitaliq.com/CIQDotNet/CreditResearch/RenderArticle.aspx?articleId=2195924&SctArtId=469879&from=CM&nsl_code=LIME&sourceObjectId=10944829&sourceRevId=1&fee_ind=N&exp_date=20290414-14:50:53). Rating upgrades or downgrades totaled seven (or 22 percent), and with three rating outlook changes, rating actions affected nearly a third of 32 S&P MDB ratings, mostly based on PCT. There were four upgrades of which three were largely from S&P's revised approach to PCT: CABEI was upgraded to AA Positive from A+ Positive, the Council of Europe Development Bank to AAA from AA+ Positive, and the Eurasian Development Bank to BBB Stable from BBB−. Only the International Investment Bank was upgraded to A− Stable from BBB+ on account of factors unrelated to PCT (better governance). There were three downgrades. CAF was downgraded from AA− Negative to A+ Negative on expectation of weakened PCT. The Islamic Corporation for the Development of the Private Sector was downgraded to A Negative from A+ Stable and the Arab Investment and Export Credit Guarantee Corporation, Dhaman, from AA to AA− Stable. Both actions were driven by issuer-specific reasons rather than PCT. S&P changed the outlooks on three supranationals; BSTDB was reaffirmed at A− with outlook upgraded to Positive from Stable on account of a potentially stronger policy role with a new expansion strategy. The outlook on FONPLATA was revised to Positive from Stable on its improving governance structure and strengthening enterprise risk profile, while the negative outlook on FLAR was related to the mounting credit risk from exposure to Venezuela and the implications for its PCT. The remaining S&P's MDB ratings (22 of 32) were reaffirmed.

I fancy that the underlying conception of a joint and several guarantee of all the member countries throughout the world, in virtue of which they share the risks of projects of common interest and advantage…may be a contribution of fundamental value and importance to those difficult, those almost overwhelming tasks which lie ahead of us, to rebuild the world…

—John Maynard Keynes
at the 1944 Bretton Woods Conference

John Maynard Keynes addressing the United Nations Monetary and Financial Conference, also known as the Bretton Woods Conference, in July 1944.

Source: Universal History Archive/UIG via Getty Images

GLOBAL TRADE AND THE FUTURE OF THE WORLD TRADE ORGANIZATION

WHITHER THE WORLD TRADE ORGANIZATION?

MARTIN WOLF
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"Protection will lead to great prosperity and strength."
—Donald Trump
Inaugural Address, January 20, 2017[1]

Has trade liberalization gone too far? Should the World Trade Organization be neutered? Donald Trump, US president, believes the answer to both these questions is yes. He believes in protection: it is the conviction, above all, on which he is to be taken both seriously and literally.[2] Trump also rejects the fundamental principles of the World Trade Organization (WTO)—the body established, with decisive US support, to oversee world trade—preferring bilateralism over multilateralism, and the rule of power over the power of rules.

The WTO was already in serious trouble before Trump arrived. The Doha Round, the most recent round of trade negotiations, launched in 2001 (shortly after the terrorist attacks on the United States of September 11, 2001), failed. The last important liberalizing event was China's accession to the WTO in 2001. But Trump has made the picture far darker. The United States has blocked the appointment of judges to the WTO's

1 Donald J. Trump, "Inaugural Address" (Remarks of President Donald J. Trump—as prepared for delivery, Washington, DC, January 20, 2017), https://www.whitehouse.gov/briefings-statements/the-inaugural-address/.

2 See, on this trope, Salena Zito, "Taking Tump Seriously, Not Literally," *The Atlantic*, September 23, 2016, https://www.theatlantic.com/politics/archive/2016/09/trump-makes-his-case-in-pittsburgh/501335/.

Appellate Body, thereby threatening to render it inquorate and thus ineffective.[3] It has also launched trade actions against its leading trade partners—China, above all. Arguably, both the US actions and (more understandably) the reactions of its trading partners contravene the letter of the WTO. Beyond doubt, they contravene its spirit. What makes these protectionist actions more menacing is that they have come after a period of sluggish growth of world trade since the financial crisis of 2008.

Those who believe in liberal trade and a rules-based order built on the principles of multilateralism, reciprocity, and nondiscrimination should not yet despair. The trading order has survived many threats and yet overseen an enormous rise in world trade: between 1950 and 2017, the volume of world trade increased 39 times, while that of output grew a very impressive 10 times.[4] The ratio of world trade to output is now the highest it has ever been.[5] This growth in trade has certainly been one of the causes of the exceptionally rapid growth of the world economy since the end of World War II.

Yet that success occurred despite many obstacles. The United States failed to ratify the International Trade Organization (ITO) agreed to in Havana in March 1948, which was the first attempt to create an international institution overseeing world trade, parallel to the International Monetary Fund's role in monetary affairs.[6] But the General Agreement on Tariffs and Trade (GATT), which had been agreed to in October 1947, took the ITO's place, even though it was merely an executive agreement provisionally applied. In all, eight rounds of trade negotiations were completed under this ramshackle arrangement, culminating in the Uruguay Round, the first to include emerging and developing countries as actively engaged partners. That negotiation ended in 1994 and was followed by the creation of the WTO in January 1995.[7]

The path of trade liberalization was also far from smooth. In the 1950s, 1960s, and 1970s, the high-income countries established a special set of quantitative restrictions on imports of textiles and clothing from emerging and

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3 See Bertelsmann Stiftung, *Revitalizing Multilateral Governance at the World Trade Organization: Report of the High-Level Board of Experts on the Future of Global Trade Governance, 2018* (Gütersloh, Germany: Bertelsmann Stiftung, 2018), https://www.wto.org/english/news_e/news18_e/bertelsmann_rpt_e.pdf; Tom Miles, "US Block WTO Judge Reappointment as Dispute Settlement Crisis Looms," Reuters, August 27, 2018, https://www.reuters.com/article/us-usa-trade-wto/us-blocks-wto-judge-reappointment-as-his-term-nears-an-end-idUSKCN1LC19O.

4 These data are from the WTO.

5 Esteban Ortiz-Ospina, Diana Beltekian, and Max Roser, "Trade and Globalization," *Our World in Data*, revised October 2018, https://ourworldindata.org/international-trade.

6 *Wikipedia*, s.v. "International Trade Organization," accessed May 3, 2019, https://en.wikipedia.org/wiki/International_Trade_Organization.

7 *Wikipedia*, s.v. "International Trade Organization."

developing countries. Substantial trade friction and rising protectionism arose during the oil shock–induced recession of the 1970s and, more threateningly, the period of the soaring dollar under Ronald Reagan, in the early 1980s. Yet this upsurge in protectionism then led directly to the Uruguay Round, in large part promoted by policy makers as a way to contain the upsurge in protectionist sentiment in the United States.

Why did the system survive and thrive? The answer is that the members found it useful. It was far easier to achieve the trade liberalization in which policy makers believed via reciprocal negotiations. Again, binding international agreements generate a degree of predictability that is of great value to business, especially when making long-term investments. A multilateral framework of obligations also makes it easier to handle relations among great powers. More broadly, the existence of a rules-governed trading system protects trade—and thus the economy—from the ups and downs of international relations. Furthermore, even where discriminatory trade does emerge, as in customs unions or free trade arrangements, threats to the interests of those outside these arrangements are managed by the rules governing them. Finally, the mutually agreed-upon legal process strengthens the credibility of the entire trading system.

Are these benefits passé, or have they merely been forgotten? The answer is the latter. The idea that trade is best dealt with or managed bilaterally has no basis in experience or economic logic.[8] A willingness to scrap commitments, because of specious threats to "national security," destroys the stability on which business decisions depend.[9] Last but not least, while the agreement allows members to take protectionist actions and even withdraw commitments they have made, it also disciplines such actions or, at the least, seeks to manage that process.

These benefits are as relevant today as when the principles of the system were proposed. Indeed, the need to find a system able to manage and contain relationships among great trading powers is arguably more important than ever, given the rise of China as a great trading power. Yet four background changes have by now undermined the political legitimacy of the trading system: the financial crisis; real wage stagnation, notably in the United States; the rise of China; and the growth of nationalism.

The most significant impact of the financial crisis, beyond the direct economic one, is that it undermined, if not destroyed, belief in the competence and probity of policy-making, financial, and commercial elites. The resulting

8 Martin Wolf, "The Folly of Donald Trump's Bilateralism in Global Trade," *Financial Times*, March 14, 2017, https://www.ft.com/content/ce92ae28-058e-11e7-ace0-1ce02ef0def9.

9 Martin Wolf, "Donald Trump's Trade Follies Presage More Protectionism," *Financial Times*, March 6, 2018, https://www.ft.com/content/995063be-1e0a-11e8-956a-43db76e69936.

vacuum opened the way to demagogues of right and left. Even where those with more traditional viewpoints still control the levers of power, they are under the influence of such demagogues.

Real wages have stagnated since the financial crisis and, in the crucial case of the United States, well before that.[10] The conclusion of the academic literature is that trade was not a dominant cause of the longer-term real wage stagnation or the rise in inequality of incomes in the United States.[11] Nevertheless, it is all too easy—and characteristically human—to blame trade, and thus foreigners, for the failures of domestic policy.

The rise of China is the most important change in the trading environment and in the direction and nature of trade since 2000. Among those concerned are affected businesses, their workers, and entire countries. This concern is not just about the disruption caused by changing trade patterns or rapid Chinese advances in technological development. It is also about the change in the balance of global power, on all dimensions. Some in the United States believe that engagement with China was a mistake and thus that the objective should now be to curb the rival superpower's rising might.

Last, various upheavals, including the prolonged postcrisis economic malaise and the rise of China, but also a surge in immigration, have created a pronounced nationalist turn in high-income countries. Trump's protectionism and bilateralism, though economically ill informed, is a reflection of his nationalist idea of "America first." The idea that putting one's country first means putting domestic producers first, albeit fallacious, is characteristically nationalist. Its emergence could have been expected.

In addition to these shifts in the political and economic environments, challenging new policy issues and ideas have emerged. One is the straightforward protectionism of a Donald Trump, albeit, in his case, with a narrowly bilateral twist. Another is countries' demand for their own "policy space" to meet demands from the public or pursue more interventionist policies. Another is the need to define more precisely what a developing country is, rather than let countries define this status for themselves. Yet another is the need to manage the interface of countries with divergent economic systems, such as those of China and the Western market democracies.

10 See "Rising Employment Overshadowed by Unprecedented Wage Stagnation," Organisation for Economic Co-operation and Development, July 4, 2018, http://www.oecd.org/newsroom/rising-employment-overshadowed-by-unprecedented-wage-stagnation.htm; and Drew DeSilver, "For Most US Workers, Real Wages Have Barely Budged in Decades," Pew Research Center, August 7, 2018, http://www.pewresearch.org/fact-tank/2018/08/07/for-most-us-workers-real-wages-have-barely-budged-for-decades/.

11 Zhiyao (Lucy) Lu and Gary Clyde Hufbauer, "Has Global Trade Fueled US Wage Inequality? A Survey of Experts," *Peterson Institute for International Economics (blog)*, August 30, 2017, https://piie.com/blogs/trade-investment-policy-watch/has-global-trade-fueled-us-wage-inequality-survey-experts.

Finally, we have seen a revival of concerns over the determinants of trade imbalances, including exchange rate "misalignments."

So how can the institutions of the trading system grapple with these new pressures and demands? How might the system cope with what are in some respects the fruits of its own successes—notably the facilitation of the rise of emerging countries and the opening up of economies—and in other respects the bitter fruits of other institutions' failures—especially the huge financial crises and the failure to help those who lose from economic change?

Here are some fundamental principles.

First, the bulk of the WTO membership continues to see the case for both liberal trade and the rule of law in trade. While it is possible to prate of sovereignty, international trade always affects at least two jurisdictions, and today, with the development of value chains, it affects a multiplicity of them. Dominant superpowers might obtain whatever they want through the exercise of their power, but this is an inconceivable path for the majority of countries. Even for superpowers, the danger that this approach will lead to a breakdown of relations, going far beyond trade, is large.

Second, while each country probably wishes for greater "policy space" in one domain or another, the existing set of agreements is the product of a complex balance of costs and benefits across members, reached in previous negotiations. Once members start to reverse these agreements, a risk of comprehensive unraveling will emerge. So any attempts to rectify existing anomalies—over the definition of *developing countries*, for example—needs to be conducted in a negotiation of give-and-take that is not going to call into question the entire institutional *acquis*.

Third, given the first two principles, one must temper any talk of the threat of "undemocratic liberalism"—constraints imposed on democratic freedom by international agreements.[12] Dani Rodrik of Harvard University, for example, suggests that globalization represents a significant (and ultimately intolerable) erosion of democratic sovereignty.[13] For nearly all countries, the economy could not operate at all, let alone successfully, without reasonably free access to global supply and thus to world markets. If a country claims the sovereign right to do as it pleases on trade, so will others, to the detriment of the countries making that claim. Democracy is far better exercised via agreements with other

12 Yascha Mounck, "Illiberal Democracy or Undemocratic Liberalism," *Project Syndicate*, June 9, 2016, https://www.project-syndicate.org/commentary/trump-european-populism-technocracy-by-yascha-mounk-1-2016-06.

13 Dani Rodrik, "The Inescapable Trilemma of the World Economy," June 27, 2007, *Dani Rodrik's Weblog*, http://rodrik.typepad.com/dani_rodriks_weblog/2007/06/the-inescapable.html.

sovereigns than by insisting on one's right to do as one pleases.

Finally, the WTO does not prevent member countries from dealing with the difficulties of their economies or of vulnerable groups within them. The WTO did not cause the global financial crisis. Nor does the broadly liberal trade agreed to within GATT and the WTO cause trade imbalances, which are essentially macroeconomic phenomena. Nor does the WTO prevent countries from assisting those adversely affected by economic change, be that due to trade or any other cause. The right response to these difficulties lies in macroeconomic, exchange rate, or domestic welfare policies.

In brief, an attempt has to be made to hold the line on the world trading system and, where possible, to go forward. Going backward will lead to disintegration. The system is too important to the world to let that happen.

A recent report titled *Revitalizing Trade Governance*, under the chairmanship of Bernard Hoekman of the Centre for Advanced Studies at the European University Institute, was revealingly modest in its proposals: no new round; more "policy dialogue"; support for "open pluralism"; enhancement of the role of the secretariat; and review of the WTO's institutional performance.[14] This agenda is, understandably, both defensive and minimal. It is indeed largely an attempt to hold the line.

More than these actions will surely be needed. Thus, if certain major powers cannot abide by the existing rules, the rest of the membership needs to proceed without these members, if necessary, through informal arrangements—over dispute settlement, for example. Plurilateral agreements among some members, but open to all of them, are a possible direction, though the presence of significant free-riders will make that approach difficult to make workable. A better alternative would be to develop free trade arrangements open to all countries willing to accept their discipline. An ambitious free trade arrangement among the 11 members of the current version of the Trans-Pacific Partnership, minus the United States (now called the Comprehensive and Progressive Agreement for Trans-Pacific Partnership), plus the EU and the UK, post-Brexit, might be the foundation of such a mega-arrangement.

Big emerging countries, especially China and India, will also need to take on a leadership role within the system. Xi Jinping has committed himself rhetorically to the idea of globalization.[15] But China has yet to take the lead in promoting liberalization. On the contrary, it is widely seen to be dragging its feet. The insistence that it is still a "developing

14 Bertelsmann Stiftung, *Revitalizing Multilateral Governance.*

15 "Full Text of Xi Jinping Keynote at the World Economic Forum," CGTN (China Global Television Network) America, January 17, 2017, https://america.cgtn.com/2017/01/17/full-text-of-xi-jinping-keynote-at-the-world-economic-forum.

country" is unworkable. Size matters: it brings the disadvantages of responsibility but also important advantages.

Today, the trading system confronts challenges bigger than any it has faced since its inception. But it remains the only orderly way to manage trading relations among countries that differ so much in power, levels of development, and political systems. It is a foundation of prosperity and peace. No safety is to be found in going back, and no easy way exists to move forward. But the effort to achieve the latter must be made.

Jan Tumlir, erstwhile chief economist at GATT, who died in 1985, used to say, "It is not true we do not learn from history; we do—and then we forget." The great threat to the trading system comes from the fact that too many people have indeed now forgotten. They take for granted the openness and predictability that has been achieved in our trading relationships. Those who do forget the past are condemned to repeat it. We must not forget.

IS THE MULTILATERAL TRADING SYSTEM FIT FOR PURPOSE?

MARI PANGESTU
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The multilateral trading system (MTS) that facilitates open and rules-based trade between countries has lifted hundreds of millions out of poverty. However, in the last two years, the MTS as we know it has come under serious threat from one of its leaders since the inception of the General Agreement on Tariffs and Trade: the United States. The public good of an open and nondiscriminatory trading system is being seriously undermined just as the Bretton Woods system turns 75.

This sharp turnaround is unprecedented; it is a nightmare for multilateralism and the international economic order as we know it. Is the protectionist sentiment of the current US administration an aberration or a symptom of a larger problem? Prior to the disruption of the system, there were signs of doubt that the MTS is fit for purpose, namely, the stalled Doha Round of trade negotiations and the changing circumstances in terms of membership. Thus, the current threat to the MTS should be seen as an opportunity to address the past and present challenges in a way that will ultimately strengthen the MTS and make it fit for purpose into the future.

THE CURRENT CHALLENGES TO MULTILATERALISM AND THE INTERNATIONAL ORDER

The Rise of Populist Nationalism and Protectionism

Since the global financial crisis, and especially in the last three years, globalization and multilateralism have been challenged as never before. After the effects of the stimulus wore off, 2012–2016 saw countries trying to adjust to

growth without stimulus on the fiscal and monetary sides as quantitative easing tapered off. This situation led to volatile capital flows, which affected emerging economies. Growth and trade slowed down, and concerns about the unequal distribution of the benefits of globalization began to influence political outcomes and precipitate the rise of protectionism.

These developments occurred amid growing perceptions that international trade has led to loss of jobs, wage stagnation for midlevel workers, and increased inequality. After the crisis, the subsequent antiglobalization and protectionist stance in the name of protecting jobs at home became a compelling story and, as we have witnessed in the last few years, led to the election of far-right and far-left populist leaders. In particular, the election of President Trump in 2016 reversed the position of the United States; for 75 years, it was the protector of the international order, and now it is becoming its greatest threat.

The greatest uncertainty is coming from the unilateral actions and protectionist stance of the United States. Shortly after becoming president in January 2016, among President Trump's first actions was to leave the Trans-Pacific Partnership Agreement (TPP), followed by renegotiating the North American Free Trade Agreement (NAFTA) and the US-Korea Free Trade Agreement (KORUS). Subsequently, the United States zeroed in on 20 countries with which it had a deficit by imposing tariffs on steel and aluminum, based on section 232 of the US Trade Expansion Act (1962), citing national security grounds. China was specifically targeted with increased tariffs on steel and aluminum as well as a range of other products deemed to be subject to unfair trade practices.[1] China responded by increasing tariffs on an equivalent amount of trade from the United States. There is major concern about continued escalation of trade tensions between the United States and China. The uncertainties the trade dispute is causing are already beginning to affect the world economic growth outlook negatively.[2] Furthermore, the United States has also been questioning the relevance and effectiveness of the World Trade Organization (WTO). Of greatest concern is the US decision to block the nomination of new judges to the Appellate Body (AB). There are currently only three sitting AB judges, which is the minimum number required to sign off on any ruling, and their terms expire at the end of 2019.

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1 The United States also imposed safeguard duties on washing machines and solar panels, but at least these come under the purview of trade remedies, even though one could take issue with the investigation process.

2 See, for instance, various editions of the International Monetary Fund's *World Economic Outlook* and the World Bank's *Global Economic Prospects* for information on the volatility of the stock market and companies deemed vulnerable to the tariff wars.

The Proliferation of Regional Agreements

It should be noted that the shortcomings of the MTS in addressing the trade and investment issues faced by countries were also evident for many years before the Trump administration turnaround on trade policy in 2016. The failure to conclude the Doha Round of negotiations as a single undertaking after 17 years since its launch in 2001, and 13 years since the negotiations began in earnest, meant that the WTO was not able to provide continued opening up of market access or remain relevant in addressing trade distortions in agriculture; updating the rules; and addressing new issues of trade such as investment, competition policy, and e-commerce and data flows.

As a result, in the last two decades, countries seeking deeper economic integration began to look at alternatives by undertaking bilateral, regional, and mega-regional free trade agreements (FTAs) predicated on the goal of increased economic integration, as well as geopolitical and strategic considerations. The major regions, such as the European Union, Asia-Pacific, East Asia, Southeast Asia, and Latin America, all pursued bilateral as well as regional agreements, including expanding and deepening existing agreements.

The Obama administration (2008–2016) turned seriously to trade policy only in its second term, but then it focused on mega-regional agreements and bilaterals. The United States began to promote the TPP aggressively in 2012, an action that was seen as a pivot to Asia and a balance to the growing influence of China. In fact, President Obama stated that the TPP was intended to keep China from writing the rules—an indication of the issues to come and the current challenges. During the same period, the cross-Atlantic EU-US Transatlantic Trade and Investment Partnership (TTIP) was launched, focusing on regulatory harmonization rather than market access, given the already low trade barriers between the two. However, the TTIP failed to make much progress, whereas the TPP, after getting a boost with Japan's joining in 2013, was concluded in 2015. It was not ratified in the US Congress in time for the end of the Obama administration, and one of the first actions of President Trump upon assuming office in January 2017 was to pull the United States out of the TPP.

Interestingly, under the leadership of Japan, the remaining 11 members agreed to continue the TPP without the United States, and negotiations were completed in 2018 for a renamed Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). Most countries have ratified the agreement, and even though its economic size is much smaller without the United States, from covering 40 percent of global GDP and trade to now around 25 percent, the agreement is still a significant development.

Besides the CPTPP, the Asia-Pacific region, notably East Asia, has seen a proliferation of bilaterals and mega-regionals. On the latter, in Southeast Asia,

the ASEAN (Association of Southeast Asian Nations) Free Trade Agreement progressed beyond tariffs and trade in goods to become the ASEAN Economic Community in 2003. Furthermore, in the 2004–2009 period, ASEAN negotiated five FTAs or comprehensive economic partnerships with its main dialogue partners, China, South Korea, Japan, Australia-New Zealand, and India. The "ASEAN plus one" FTAs or comprehensive economic partnership agreements did not focus just on trade in goods but also on trade in services and investment, and they increasingly addressed environmental and labor issues, albeit still mainly in relation to transparency. In 2012, ASEAN agreed to consolidate all the plus-one agreements into a new East Asia Regional Comprehensive Economic Partnership (RCEP) agreement. Negotiations are ongoing, with some expectation of substantial conclusion by the end of this year. Apart from trade in goods, services, and investment, the RCEP includes chapters on competition policy, e-commerce, the environment, and labor, although the agreement has been described as having a lower level of ambition than does the CPTPP.

Meanwhile, in the Latin American region, there was failure to conclude the Free Trade Area of the Americas. However, the emergence of the Pacific Alliance, made up of the Latin American economies that have been able to maintain a reform agenda and trade openness, such as Chile, Costa Rica, Mexico, and Peru, has been successfully negotiated.

Although these partnerships are mainly intended to increase cooperation and economic integration among member states, their existence shows countries' response to the slow pace of negotiations in the WTO; potentially poses a threat to the WTO's nondiscriminatory principle; creates stumbling blocks rather than building blocks for MTS negotiations, with the emergence of the famous spaghetti bowl effect of inconsistent schedules and rules; and risks creating trade diversion.[3] At the same time, these agreements could function as catalysts to more multilateral agreements and as a guide to new issues not yet addressed in the WTO, such as investment and e-commerce.

MOVING FORWARD TO SAFEGUARD THE MTS: ADDRESSING THE CHALLENGES

The MTS and international economic order as we know it are under serious threat, and it is of utmost importance that we safeguard and strengthen them to face the current challenges. US-China trade tensions are unlikely to be resolved in a satisfactory way if dealt with unilaterally or even bilaterally, either of which

3 Chad P. Bown, "Mega-regional Trade Agreements and the Future of the WTO," *Global Policy* 8, no. 1 (2017): 107–12. Literature on trade diversions can also date back to Jacob Viner, *The Customs Union Issue* (New York: Carnegie Endowment for International Peace, 1950).

would mean doing deals outside of the system, diverting trade, and undermining confidence in the MTS.

The Developing-Country Issue

The role of developing countries in the MTS, and China in particular, requires attention. There has been a rise in antiglobalization sentiment worldwide, but it is more pronounced in developed countries, whose support of the WTO as the vanguard of the MTS is in decline. In a recent survey conducted by Bertelsmann Stiftung, more than 60 percent of respondents in emerging countries believe the WTO is an important institution, relative to only 30 percent of respondents in the United States.[4] Populist rhetoric often includes dissatisfaction with the WTO's "unfair" treatment of China and other developing countries. The EU, the United States, and Japan have not yet given China market economy status, related to what they perceive as lack of a level playing field and transparency around industrial subsidies, preferential treatment of state-owned enterprises, violation of intellectual property rights, and technology transfer requirements for foreign firms.

Since its accession to the WTO, China has benefited from numerous exceptions under special and differential treatment (SDT) clauses. China's exponential growth since its accession to the WTO and its status as the second-biggest trading player in the world have sparked debate about whether these exceptions, which are reserved for developing countries, should still apply to China. Arguably, despite its economic size, low per capita income and poor progress on other development indicators in inner provinces should mean that China still qualifies for them. The same may be said for other major developing countries.

On the one hand, classifying countries as "developed" or "developing" based on a set of selective economic indicators would lead to an arduous negotiation process around acceptable development indicators.[5] On the other hand, given the levels of development reached by some emerging economies, the issue of flexibility in SDT status does need to be revisited and made more nuanced for the continued relevance of the institution. One possible approach could be a design similar to that of the Paris Agreement on climate change, which differentiated levels of responsibility and commitment relative

4 Bertelsmann Stiftung, *Revitalizing Multilateral Governance at the World Trade Organization* (Gütersloh, Germany: Bertelsmann Stiftung, 2018), https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/MT_Report_Revitalizing_Multilateral_Governance_at_the_WTO.pdf.

5 "An Undifferentiated WTO: Self-declared Development Status Risks Institutional Irrelevance" (Communication from the United States, WT/GC/W/757, General Council, World Trade Organization, Geneva, Switzerland, January 16, 2019).

to development progress. We must first acknowledge that this is an issue that must be discussed in more depth to define a way forward that is acceptable to all stakeholders.

An Agenda for WTO Reforms

At the 2018 G20 meeting in Buenos Aries, leaders called for commitment to improving a "rules-based international order" that is capable of responding to the rapidly changing world, and they supported "the necessary reforms of the WTO" to improve its functioning. Defining a process of WTO reforms involves identifying the priorities for these reforms and setting their strategic direction.

In the immediate and short-term period, the urgent issue of reform is settling the nomination of judges for the AB and other reforms of the dispute settlement mechanism. AB nominations should be prioritized, and at the same time the WTO should address the proposed reforms that are already on the table in response to US concerns, including the transition period of AB judges, time frames for rulings, and the issue of precedence.

Furthermore, to ensure confidence in the WTO, its members need the political will to resolve outstanding issues that are already well advanced in the process of negotiations—what we would call "low-hanging fruits." Two such possibilities are (1) completion of the rules on discipline for harmful fishing subsidies, which will address market distortions as well as have sustainable outcomes on overfishing and overcapacity issues, and (2) transparency and notification of trade policies and WTO commitments. Also needed are ongoing and continued discussions on the more complex and potentially sensitive issues, including a strategic process to strengthen the MTS and build confidence in the institution and processes of the WTO.

A range of new issues falls into this category, including the set of traditional issues, such as completing the agriculture negotiations, improving the rules on intellectual property rights, addressing services, and expanding the Agreement on Government Procurement. Another set of issues have not yet been dealt with in the WTO but are already an integral part of trade and investment relations today, as well as already being addressed in FTAs, and thus are in need of being addressed in the MTS. This group includes issues such as investment and investment facilitation, a framework for addressing trade distortions such as subsidies, a competition policy, and a policy of neutrality vis-à-vis state-owned enterprises. Levy has argued that the existing WTO rules are inadequate to compel economic reforms related to the treatment of state-owned enterprises.[6]

6 Philip I. Levy, "The Treatment of Chinese SOEs in China's WTO Protocol of Accession," *World Trade Review* 16, no. 4 (2017): 635–53.

Currently, the WTO lacks regulations related to e-commerce, data flows, and data privacy.[7] Little progress has been made toward WTO agreements covering e-commerce and Internet-enabled transactions involving goods and services. Concerns about the rules also point to the lack of national efforts in WTO members' jurisdictions toward providing measures for protected digital transactions and foreign goods and services. The recently announced 73-country negotiation of a plurilateral agreement on e-commerce is looking at many of these issues. It is an important step of progress in the WTO negotiation framework and toward establishing a plurilateral approach, given the difficulties in reaching consensus among 164 members. The most comprehensive approach on this issue so far in regional agreements can be seen in the TPP.

In the case of subsidies, many member states enforce national laws contradicting the rules in the Agreement on Subsidies and Countervailing Measures, reasoning that the subsidies are being used for governmental stabilization policies, national security, or other reasons that qualify them as nonprohibited measures. Furthermore, there is also a large number of unreported subsidy measures.[8] The issue of subsidies to state-owned enterprises is addressed in the TPP.

Other areas for reform relate to labor and the environment, which are noneconomic, nontrade issues but can lead to trade-related outcomes. Thus, almost all FTAs, including the TPP, now include labor and the environment, but there is still a need for links to accepted international standards. In the case of labor, there are the International Labour Office standards, whereas for the environment the universal standards and measures are still in process.

The existing WTO agreement does not provide any rulings on environmental protection. In fact, there has been continuous debate on whether environmental protection could fit somewhere in the scope of WTO law. Regarding this issue, Hufbauer and Kim discussed several options, such as negotiating a new code under plurilateral agreements to create policy space for climate measures, amending parts of WTO legal texts to accommodate environmental controls, or sticking to the Doha mandate by reducing trade barriers to environmental goods and services as well as to the dissemination of intellectual property with a bearing on climate change.[9]

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7 Gary Clyde Hufbauer and Cathleen Cimino-Isaacs, "How Will TPP and TTIP Change the WTO System?" *Journal of International Economic Law* 18, no. 3 (2015): 679–96.

8 *The Library of Economics and Liberty*, s.v. "Agricultural Subsidy Programs," by Daniel A. Summer, accessed March 2019, https://www.econlib.org/library/Enc/AgriculturalSubsidyPrograms.html.

9 Gary Clyde Hufbauer and Jisun Kim, "The World Trade Organization and Climate Change: Challenges and Options" (Working Paper No. 09-9, Peterson Institute for International Economics, Washington, DC, 2009).

Process and Leadership

Given the current situation, whereby it would seem that a single undertaking such as that envisaged by Doha is no longer workable, there remain different pathways to push forward the process of opening up and updating the rules of the WTO. For instance, often the negotiation of one issue—especially one whose negotiating points have mainly been resolved and that has a lot of support and pressure from stakeholders, such as the private sector—can be completed a sequential way, for example, the trade facilitation agenda. Another example in the current context would be discipline for fisheries subsidies.

Another approach is for a cluster of members that make up a "critical mass" to agree on an issue and then take it up for negotiation in the broader WTO. This negotiation may result in certain products' gaining most-favored-nation (MFN) access to foreign markets. Examples of this mechanism at work are the Information Technology Agreement (ITA), ITA-2, and a list of environmental goods, which were agreed upon by the Asia-Pacific Economic Cooperation (APEC) and then brought to the WTO for negotiations; upon completion of WTO negotiations, certain items were given MFN treatment. The intention, mentioned above, by 73 countries to negotiate an e-commerce agreement falls under this plurilateral approach. Negotiations would need to cover issues such as nonmember countries' ability to join as observers, transparency of the process, open accession clauses, and whether to give a category of goods or services MFN treatment or not.

The most difficult question is the role of leadership in an increasingly uncertain world in which the values of Bretton Woods are at stake. Major developing countries that have benefited a lot from opening up to trade via the MTS should play a bigger leadership role to push WTO reforms. Additional developed countries, such as Australia, Japan, those in the EU, and others, have to commit to maintaining the rules-based international order.

CONCLUSIONS

The disruption to the order of the MTS caused by the United States should be seen as an opportunity not only to strengthen the MTS but to undertake reforms on various fronts to make it fit for the purpose of addressing the challenges of today. Needed reforms relate to the changing balance of economic power and the multipolar world, which will necessitate changing the division between developed and developing countries to better reflect today's reality. There also needs to be a more effective means to address the development dimension of trade, whether it is ensuring effective trade with or effective capacity building within least developed countries.

Reform will also necessitate working to complete the current issues under negotiation, notably the AB nominations and rules on dispute settlement

and fishery and agriculture subsidies, and to strengthen aspects of the system such as the transparency and monitoring of notifications of policies. At the same time, we must begin to address the "new challenges" posed by issues of pertinence to the conduct of trade and investment today, which are not yet covered in the rule book. These include trade- and market-distorting policies such as industrial subsidies; competitive neutrality in the case of state-owned enterprises; reforms on intellectual property rights, e-commerce, and digital trade; and sustainable development issues such as the environment and labor.

Top-down impetus comes from the highest level of political leadership, which can call for concerted action through the G20 process. Bottom-up energy can come from various pathways, including plurilateral approaches, which can all be complementary. It can start from the various sherpa and working groups in the G20 that feed into the WTO negotiating process. Another complementary process is that of the mega-regionals, which are already addressing all the new issues and can be used as a reference point for beginning discussions on the issues and rules to be negotiated multilaterally.

To the extent that such reforms will reinforce a national coordination process, they should be seen as a positive means to find the right balance for dealing with a myriad of questions related to completing urgent matters in the countries' interests, considering new issues that they will have to deal with eventually and weighing trade against both development needs and downside risks. Needless to say, the national coordination process should not be confined to governments but needs to incorporate all stakeholders—including the private sector and civil society.

This essay ends with a hope. Let's not despair about the collapse of the MTS given the unpredictable uncertainties and challenges. Let's not give up—that is too easy. While many of these recommendations may not work out in reality due to political or institutional constraints and lack of clear leadership, they are a starting point for continued discussion toward finding creative paths to multilateralism with shared vision and values of international cooperation for national and global good.

CHALLENGES TO THE WTO DISPUTE SETTLEMENT SYSTEM

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Objectives and ideas related to shaping the world order after World War II were part of the diplomatic concerns of the United States and Great Britain beginning with the Atlantic Charter of 1941. Among these objectives was the establishment of institutions with the ability to foster economic cooperation among nations that had been hindered in the prewar period. This objective led to the Bretton Woods Agreement of July 22, 1944, which created the International Monetary Fund (IMF) and the World Bank. Neither of these institutions, however, dealt with the trade pillar of economic cooperation. Trade was part of the policy planning concerns of the United States and Great Britain, who also conceived the idea of an international trade organization. During the war, US Secretary of State Cordell Hull was the vigorous sponsor of the objective of promoting freedom in international trade, to the maximum practical degree, as a way to achieve the peace and welfare of nations.

The Bretton Woods Agreement acknowledged that additional measures of economic cooperation were necessary to facilitate the expansion and growth of international trade, thus recognizing the complementary need to establish a multilateral trading system. The first public proposals related to this matter were made in 1945 and led to the manifold negotiations that concluded in the Havana Charter of 1948, which provided for the establishment of an international trade organization but never entered into force.

The General Agreement on Tariffs and Trade (GATT), which had been negotiated separately in 1947, entered into force provisionally on January 1, 1948, and contained much of the content related to commercial policy that came

to be included in the Havana Charter. Thus, the beginning of the multilateral trading system started in 1948, much later than the IMF and the World Bank.

As a result of its provisional dimensions, GATT was, from its very beginning, a much weaker and less formalized arrangement in the world sphere than the IMF and the World Bank, which had been created with the Bretton Woods Agreement. In this context, GATT articles conferred a preeminent role to consultations with the IMF when any contracting parties were called on to deal with problems related to monetary reserves, balance of payments, and foreign exchange arrangements that affected international trade.

THE PROGRESSIVE DEVELOPMENT OF GATT AND THE ESTABLISHMENT OF DISPUTE SETTLEMENT MECHANISMS

Notwithstanding its precarious beginning, GATT was able to affirm itself as an institution and expand its international role in trade matters. Successive rounds of tariff negotiations reduced barriers to trade, even though they failed to address important matters such as agriculture. The number of contracting parties expanded, enhancing the multilateral dimension of the most-favored-nations clause and the principle of nondiscrimination. The increase in international trade stimulated by the action of GATT naturally led to trade disputes and consequently to the need to put into place mechanisms for their settlement.

The GATT system evolved through practice, and its articles provided the legal foundation for action. It was based on an obligation of conduct, enshrined in article 22, which provided for consultations, explicitly stating that contracting parties "shall accord sympathetic consideration . . . regarding such representations as may be made by another contracting party with respect to any matter affecting the operation" of the agreement. The next step, provided in article 23, was the possibility of referring representations regarding nullification and impairment of the objectives of GATT to the contracting parties if no previous satisfactory adjustment on the matter has been reached.

In dealing with these representations, in the mid-1950s the contracting parties, exercising so-called quasi-judicial powers, started to establish independent panels, usually composed of three members not chosen by the parties, to review the facts of a case and the applicability of GATT's provisions so as to arrive at an assessment of the matter. Consensus was required to establish a panel and subsequently to adopt its findings and recommendations. The corpus of solutions produced by this system was significant, in both numbers and substance. These solutions were qualified as "diplomatic jurisprudence," a special blend of law and power, and as such, they were not necessarily helpful in dealing with the representations of

the contracting parties, who were less powerful trading partners because they were not key suppliers or consumers in international trade.

GATT left room for unilateral interpretations of the scope and application of its rules. It also left room for the unilateralism of "self-help" in the application of its rules through employment of trade retaliation measures that included raising tariffs beyond what had been agreed to in GATT negotiations.

The World Trade Organization (WTO) system of dispute settlement was negotiated in the broader context of the Uruguay Round as a progressive development of the GATT system and, as such, a response to the latter's perceived imperfections. These imperfections were seen as impairing the development of a more ambitious multilateral trading system in an era of expanded trade relations favored by globalization.

THE SPECIAL ROLE OF DISPUTE SETTLEMENT IN THE WTO

The long and complex negotiations of the Uruguay Round of GATT, initiated in 1986 and concluded in 1994, led to creation of the WTO, a full-fledged international organization with a legal personality and an institutional dimension that GATT did not possess. The negotiated transition of GATT to its successor, the WTO, gave the multilateral trading system added relevance in the international sphere, comparable in its field to the *locus standi* of the IMF and the World Bank. Thus, one of the functions of the WTO is its role in achieving greater coherence in global economic policy making through cooperation, *as appropriate,* with the IMF and the World Bank. Cooperation with the Bretton Woods institutions was formalized by agreements between them and the WTO. For the purpose of this article, it is important to recall that in the agreement with the IMF, the autonomy and independence of the dispute settlement system was duly preserved, as appropriate, for a new rules-based multilateral trading system.

The added relevance of the WTO when compared with the GATT is a result of both a trend, consolidated over time, toward universality in its membership and a very substantial increase in the scope of its rules. The WTO rules were embodied in a single undertaking that went far beyond what was contemplated in the rules and practices of GATT.

The objective of the WTO was to set up not just a multilateral trading system of greater scope and greater membership than that of GATT but an integrated, more viable, and durable *rules-based multilateral trading system.* This explains the thickening dimension of legality that is present in the dispute settlement pillar of the WTO.

One of the reasons for this thickening of legality resides in the fact that the assets of the WTO differ from those of the IMF and the World Bank. The Bretton Woods institutions manage

resources and, especially in the case of the IMF, have regulatory functions. The WTO, however, does not have resources of its own. The assets of the WTO are its rules, and it is the thickening of legality that provides *erga omnes* credibility, acceptance, and observance of its rules.

In this context, it is worthwhile to observe that the results of the Uruguay Round were crafted and negotiated at the crossroads of economic, political, and legal reasoning. This explains why the WTO and its rules are not an unrestrained free trade charter. They provide, to the maximum practical degree, a structure to harness the value of open trade to rules and realities.

Economic reasoning stressed, and continues to stress, the importance of the role of international trade in fostering development and competitiveness, as well as the potential for reciprocal gains through increased liberalization in the trade of goods and services. By virtue of their position, diplomats are well aware of the issues of power in the international system and, in their reasoning and concerns, did not, and do not, ignore the fact that power is inherent in economic life. Furthermore, as representatives of countries, they know that competition and the market can be both constructive and destructive in the internal economic sphere. Hence, in the singular undertaking of the WTO, additional concern was given, for example, to antidumping, subsidies, and countervailing measures and safeguards. The reasoning of lawyers and legal scholars has stressed, and continues to stress, that societies and markets do not operate in a void but require rules and institutions to function adequately.

This concern about rules and institutions made administration of the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) one of the functions of the WTO. It also led to the establishment, in the very structure of the WTO, of the Dispute Settlement Body (DSB), convened as a specialized organ of the General Council in charge of responsibilities related to the DSU. The DSU was conceived as "a central element in providing security and predictability to the multilateral trading system," preserving "the rights and obligations of members under the covered agreements," enabling clarifications "of the existing provisions of these agreements in accordance with customary rules of interpretation of public international law" with the caveat that recommendations and rulings "cannot add to or diminish the rights and obligations provided in the covered agreements" (DSU, article 3.2).

In this context, one of the key elements of the system was the explicit purpose of containing the unilateralism of power-oriented action and self-help that was a possibility inherent in GATT's practice. This is why the strengthening of a rules-based multilateral system was mandated in article 23 of the DSU, which states that the "redress of a violation of obligations or other nullification

or impairment of benefits" can occur only through the procedures set forth in the DSU.

The effectiveness of the system required the end of the GATT practice of any member's blocking, per se, the dispute mechanism. Hence, in the WTO, the dispute resolution process is automatic. It offers the right to a panel and the right to adoption of a panel report, or alternatively, the added juridical security of the right to appeal to a standing Appellate Body, composed of seven members who are entitled to review the findings and the legal interpretations developed by the panel and, subsequently, the right to adoption of the Appellate Body report. In every situation, the DSB conducts institutional collective surveillance of the WTO regarding implementation of recommendations and rulings by the dispute settlement system.

I will not examine the technicalities of the system, but it is important to emphasize that the complexity and *ratione materiae* extension of the issues covered by the rules of the WTO, along with the expansion of international trade, opened up a vast array of potential trade disputes. This development has led the WTO, over the course of its existence and up to the present, to make very significant use of its dispute settlement system, resulting in a steady increase of its jurisprudence, which has become a substantial body of "living law." As of October 2018, there had been 566 requests for consultations, 316 panels established by the DSB, 275 panels composed, 246 panel reports circulated, 230 panel reports adopted, and 156 Appellate Body reports adopted. Nevertheless, in light of the implementation disputes that have been brought under article 21.5 of the DSU, it cannot be said that all the disputes with a report adopted by the DSB have been settled.

THE POLITICAL LANDSCAPE AT THE TIME WHEN THE WTO DISPUTE SETTLEMENT SYSTEM WAS NEGOTIATED AND CONCEIVED

The WTO is the first significant post–Cold War international organization. As such, it was politically favored by coming at the end of the East/West and North/South polarities of the Cold War, based on regions' and countries' distinctive and different views regarding the shape of the world economic order. This political background of eroding polarities created a climate of opinion that helped identify shared interests regarding the potential for in-depth cooperation on matters of trade. The WTO was also favored from an economic perspective, by positive expectations for globalization through a progressively more open trading environment in accordance with the rules embodied in the results of the Uruguay Round, an environment that would have a worldwide impact on growth

and would increase living standards and employment.

In terms of trade disputes, these circumstances led to weakening of the diffuse tensions that had emerged due to conflicting conceptions regarding the way international economic life operates. In this context, trade disputes in the WTO were considered to be a by-product not of conflicting conceptions but, rather, of conflicts of interest on matters sufficiently circumscribed to lend themselves to claims and representations susceptible to reasoned analysis that can be sorted out by applying and interpreting established and accepted rules. This approach paved the way for the acceptance of legal settlement of disputes and to the rule of law in taming power-oriented behavior by WTO members, in a rules-based multilateral trading system. Conflicts of interest, not conflicts of conception, explain the significance of article 3.10 of the DSU: "it is understood that requests for conciliation and the use of dispute settlement procedures should not be intended or considered as contentious acts and that, if a dispute arises, all members will engage in their procedures in good faith in an effort to resolve the dispute."

The taming of power-oriented behavior through the rule of law is not an easy matter in the international sphere. The interpretation and application of rules according to the logic of legal experience is never unequivocal or consensual, even in a system, such as the WTO, that precludes legal activism. States have different interpretations of the scope and application of the rules and of the impact these rules have on their respective national economies. In other words, they have different interpretations of the relative significance, in their own political and economic views, of any nullification or impairment of benefits under the covered agreements. Furthermore, the living law of the cases settled by the WTO system has become very complex since such cases have dealt with new dimensions of trade brought about by the *ratione materiae* amplitude of the covered agreements.

In this context, it is not the result of any given case that sustains the WTO dispute settlement system. Instead, it is acceptance of the legitimacy of the procedures contemplated in the DSU that provides legitimization for its functioning. The WTO, its covered agreements, and the DSU proceed from a climate of political opinion that offers room for a Grotian reading of international relations, that is, for the possibility of managing both conflict and cooperation in a rules-based multilateral trading system through a process that stems from the rationality and functionality of a broad reciprocity of interests.

For several reasons to which I now turn, it is the questioning of this Grotian reading that explains the very significant and overall challenges that the WTO dispute settlement system presently faces.

THE CRISIS OF THE WTO AND CHALLENGES TO THE DISPUTE SETTLEMENT SYSTEM: THE BROAD PICTURE

Today's international system is very different from the one that led to the creation of the WTO. In a nutshell, the world has moved from a context that favored a Grotian understanding of international relations to one that embraces a Hobbesian context of greater unpredictability, uncertainty, and violence. The antagonism of diffuse tensions of differing degrees and intensity is not offering room to identify shared common interests. The spread of tensions is one of the political consequences of *multipolarity*, that is, of a world in which economic and political power is more widely distributed than in the past. *Multilateralism*, as conceived and practiced, with due adjustments by the institutions created in the post–World War II period, has not been effectively capable of absorbing the new ingredients of the distribution of economic and political power in a multipolar, globalized world. The overall diffuse reciprocity that sustains the preservation and standing of multilateral chessboards as a space of diplomatic articulation, capable of handling the complexity of the present problems of international society in a more integrated way, is being challenged, with added emphasis provided by President Trump's "America first." Centrifugal forces and the impetus of unilateral actions are playing their role. The crisis of the WTO and its dispute settlement system is part of this larger picture in the specific context of the multilateral trading system.

Technological and scientific innovations have reorganized the way goods and services are produced and distributed today as well as the manner in which people interact with each other. These changes have occurred at a pace and scale that was not foreseen in the Uruguay Round. E-commerce and global production chains are part of the new landscape. Yet the fruits of globalization are sour for those around the world who face social and economic insecurity brought about by the dwindling of low- and medium-skilled jobs that has derived from this landscape, with consequences for countries' internal political agendas regarding the WTO. One such agenda is a misguided perception of the potential of old-fashioned protectionism as an economic response to the new realities of an interconnected world.

Economic dynamism has shifted toward the Pacific. The rise of China has changed the political economy of international relations, raising concerns as to whether the trade remedies of the WTO, and its trade rules in general, are adequate for dealing with the competitive challenges of an economy that is so very much guided by state action.

The rise of emerging economies has rebalanced the decision-making process in the WTO, and the agenda of the negotiating pillar reflects priorities on the part of both developed and developing countries, amid difficulties

in fostering convergence. The WTO is a member-driven organization that follows the practice of consensus decision making, explainable because compliance with overall rules requires that the rules be created and accepted by all. This practice, however, has become a problem for one of the functions of the WTO, namely, that of providing a forum for further negotiations among its members concerning their multilateral trade relations.

These changes, together with a more general erosion of the Grotian outlook, are among the explanations that led to the foundering of the ambitious mandate of the Doha Round of negotiations of 2001, a fact that became clear in 2008. The 2013 Trade Facilitation Agreement reached in Bali and the 2015 Agreement on Agriculture obtained in Nairobi, the latter prohibiting export subsidies, are relevant but modest achievements. With the spread of regional trade agreements, centrifugal tendencies have reduced the centrality of the WTO.

It is important to stress, however, that the institutional existence of the WTO and its rules was strong enough to serve as a hedge to contain the protectionist tendencies that came to the forefront with the very significant impact of the 2008 global financial crisis. This strength is a very relevant contribution to the achievement of greater coherence in global economic policy making that is one of the functions of the WTO.

All of these observations, as well as trust in the reasoning of this article, have two objectives. The first is to point out that throughout the years, dispute settlement has been the most effective of the functions of the WTO. The second is that this function, carefully crafted in the Uruguay Round as a progressive development of GATT, has made constructive room for peaceful solutions to trade disputes, preventing them from becoming unilateral power-oriented political disputes with the potential to escalate into trade wars. Present-day challenges to the dispute settlement system, if not adequately surmounted, may destroy this most important achievement of the WTO.

THE CRISIS OF THE WTO DISPUTE SETTLEMENT SYSTEM: DEADLOCK

Throughout the years, suggestions have surfaced related to improving the rules of the DSU. Such suggestions contemplate adjustments based on the practice of some members in relation to their experience with the functioning of the DSU. An examination of such adjustments is not relevant here, since they are not a result of conflicts of conception and do not question the logic and legitimacy of the system.

There are also concerns of a more general nature regarding the manner in which the system as a whole operates today. Some of these concerns relate to system overload and its consequent impact on the capacity of the Appellate Body to deliver high-quality reports

on very complex matters within the time frames prescribed by the DSU. Others express members' discomfort with the consequences of the slow pace of the WTO negotiation pillar, which generates additional pressure on the dispute settlement pillar as it deals with more complex cases in the context of significant changes in the global economic environment. The importance of *deference* to national decisions on trade matters has increased in a multipolar world, with the impact of increasing appreciation for the multilateral dimension of the DSU's activities and work. I will not, however, address these concerns and other issues that, if properly sorted out, will enhance the merits of the system. I will focus instead on the deadliest challenge that the dispute settlement system presently faces.

This challenge is a result of the deliberate blocking by the United States of appointments of members to fill vacancies on the Appellate Body. "Vacancies shall be filled as they arise," prescribes the DSU (article 17.2). This rule was conceived to ensure the effectiveness and automaticity of WTO members' right to appeal regarding panel findings and recommendations. It is this right of all that is being threatened by US obstructionist policy. Since 2017, none of the required nominations to fill vacancies on the Appellate Body have occurred, and as of October 2018, the Appellate Body has been reduced to three members instead of the prescribed seven. Three is the bare minimum needed for the functioning of an Appellate Body that is already overloaded with cases. Moreover, any case of possible conflict of interest on the part of any one of the three remaining members will prevent the formation of a three-member panel, required by the DSU for examining an appeal.

In short, US obstructionist policy is suffocating the dispute settlement pillar of the WTO. The Appellate Body and the panels are essential to the system conceived by the DSU. Panels cannot properly function without legal guaranty of the active presence of a standing Appellate Body. When a panel report is appealed but an Appellate Body division cannot be formed, the adoption of the panel report is suspended until the Appellate Body can complete its proceedings. Therefore, any losing party would be able to prevent the adoption of a panel report by appealing to a paralyzed Appellate Body. This situation leaves open the possibility of a unilateral blocking of the system and its automaticity and, as such, a return to the imperfections of the GATT system as well as an erosion of the *rules* dimensions of the multilateral trading system created by the WTO, all within a complex new trading environment.

If the United States continues pursuing this deadlock, with no new appointments by December 2019 and only one remaining member, the Appellate Body will cease to function. That is certainly a Hobbesian perspective that will supersede the safety-net Grotian potential of addressing conflict in trade matters through the instruments of law.

Qualified legal scholars have floated creative ways to make the system work without an Appellate Body as a way to bypass the deadlock. While I appreciate these individuals' inventiveness and commitment to the WTO, such solutions would serve only as a provisional bypass and would require the support of many members. In my view, the heart of the system cannot survive if a systemic response is not put into place. Such a response would need to maintain the system's automaticity and safeguard the independence and impartiality of the Appellate Body. So I will conclude, having as a point of departure my very positive view of preserving the merits of the WTO in the international sphere, with the following considerations.

In light of available information and without going into the technical details, I concur, in the first place, with proposals that have been raised in several quarters regarding an increase in the size of the Appellate Body from seven members to nine, with each member serving a single term of seven or nine years. This change would prevent intimidation and avoid the political issues that have been raised regarding reappointments of Appellate Body members. Increasing the Appellate Body to nine members would also make it more representative of the WTO's membership today and enhance the number of available divisions that, without overlapping, could help in handling the overcrowded agenda of cases. The Appellate Body should be made a full-time tribunal, unlike what it is today, a nominally part-time body, which it never was in practice and certainly cannot be under the present circumstances. Resources compatible with the responsibilities of a larger, full-time Appellate Body should also be made available.

There are concerns related to the time frames prescribed by the DSU—the rule of a maximum of 90 days—for the Appellate Body to circulate a report. More reasonable flexibility, with the agreement of the parties concerned, could be incorporated into the rules, bearing in mind the complexity of any given case.

Finally, in underscoring the merits of the multilateral chessboard that is the WTO, I note that members have the right to voice their views on an Appellate Body report when it is adopted, according to the automaticity of the system, by the DSB (article 17.14 of the DSU). This rule provides an institutional opportunity to go beyond a specific case and also discuss any trends in the interpretations of findings and recommendations of the dispute settlement system.

If the voicing of dissatisfaction increases in a generalized way, there is a multilateral remedy at the disposal of the membership. According to the Marrakesh Agreement (article 9.2), the Ministerial Conference and the General Council have exclusive authority to adopt an interpretation of the WTO Agreement and of multilateral trade agreements. A "decision to adopt an interpretation shall be taken by a three-fourths majority of members" and, of course, not used in a manner that would undermine

prescribed amendment procedures. Any such decisions—up to now none has been made, given the practice of consensus—will be binding in the WTO dispute settlement system. So it is in the hands of the membership to multilaterally handle extreme situations involving substantive problems related to the way jurisdiction of the WTO dispute settlement system operates.

GLOBAL GAINS FROM THE WTO

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The gains from trade can be maximized globally only within the enabling context of an international framework of rules. Within this framework, there must be rules that facilitate the flow of trade, and those trade rules must be followed and enforced globally. In realization of this need, many of the governments of the world have long labored to build and strengthen a global framework of rules for the international rule of law in trade. They have agreed on global trade rules. They have agreed to try to continue to improve these rules to meet the ever-changing challenges of an ever-changing global economy. And they have agreed to uphold and enforce these rules together through their cooperative efforts as the World Trade Organization (WTO).

The flow of trade in world markets is smoothed by the certainty that comes from having rules for world trade. Traders need to know that mutual obligations will be met. International traders especially need to know that obligations will be met in and by other countries. Why ship a widget to the far side of the world if you are not sure you will be paid? And why take the risk if you fear your product will face trade discrimination? The WTO treaty refers to the sense of certainty traders need as "security and predictability."[1] Security and predictability in trade have long been sought through rules. Throughout history, the gradual spread of trade has coincided with the development of rule-making and rule-enforcing institutions.[2] In supporting the spread of trade, these institutions have supported the

1 World Trade Organization, "Understanding on Rules and Procedures Governing the Settlement of Disputes," article 3.2.

2 Daren Acemoglu, Simon Johnson, and James Robinson, "The Rise of Europe, Institutional Change and Economic Growth," *American Economic Review* 95, no. 3 (2005): 546–79.

spread of freedom. As William Easterly has said, "Free institutions create free values, and vice versa, for a virtuous feedback loop."[3] The WTO is an international institution that seeks through international cooperation to maximize the gains from trade and thus maximize the opportunities for freedom by agreeing on and abiding by rules.

THE EVOLUTION OF TRADE RULES

Since its modest origins with the conclusion by 23 countries of a General Agreement on Tariffs and Trade (GATT) in the hopeful wake of the Second World War, the international institution that has evolved into the WTO has labored to lower barriers to trade by establishing the international rule of law in what has gradually grown into a world trading system. The "main function" of the WTO "is to ensure that trade flows as smoothly, predictably and freely as possible."[4] The members of the WTO are currently 164 countries and other customs territories that, altogether, account for about 98 percent of all world commerce. Not much affects world trade that does not fall within the purview of the WTO.

From its beginnings as GATT, and throughout its expansion and evolution into the WTO, the international rule-making and rule-enforcing institution known as the World Trade Organization has worked because all of its members have taken the broader and the longer view. They have all rightly understood that it is in their own self-interest for the WTO to work. Through the decades, the WTO has worked and has progressed, whenever and to the extent that WTO members have made a priority of their mutual perception of a shared self-interest in advancing trade. The WTO will work and will progress in the future only if this enlightened view endures and prevails.

According to Nobel Prize–winning economist Michael Spence, who echoes many others, "The GATT was the beginning of the creation of what we now call the global economy.... Together with cost-reducing technological advances in travel, transportation, and communication, the GATT was an essential catalyst to a second economic revolution, a much more inclusive one in which hundreds of millions of people started to experience the benefits, if also the turbulence, of growth. It is this revolution, now much easier to see than it was at the start, that is shaping the way we live."[5]

Thanks to this economic revolution, during the last half of the 20th century, "the world performed better ... than at any time in the past. World GDP

3 William Easterly, *The Tyranny of Experts* (Philadelphia: Basic Books, 2014), 139.

4 "WTO in Brief," World Trade Organization (accessed January 2019) https://www.wto.org/english/thewto_e/whatis_e/inbrief_e/inbr_e.htm.

5 Michael Spence, *The Next Convergence* (New York: Picador, 2011), 28–29.

increased sixfold from 1950 to 1998 with an average growth rate of 3.9 percent a year compared [with] 1.6 percent a year from 1820 to 1950, and 0.3 percent from 1500 to 1820."[6] Even with the turmoil of the global financial crisis, beginning in 2008, and with the widespread backlash against globalization since that crisis, the growth inspired by this economic revolution continues in the 21st century.

The conference at Bretton Woods in New Hampshire toward the end of the Second World War was the beginning of what became GATT and of what has since become the WTO-based multilateral trading system. The victorious Allies agreed there on much of what later became the architecture of "global governance" for the entire postwar economic system. Both the World Bank—to promote global development—and the International Monetary Fund—to stabilize global monetary policies—were born at Bretton Woods.[7] Also born at Bretton Woods was the global idea of an International Trade Organization (ITO) to promote the liberalization of world trade and investment.

The so-called ITO was supposed to prevent a renewal in the postwar world of the short-sighted and self-defeating "beggar-thy-neighbor" trade restrictions that contributed to the outbreak of the war by causing the global collapse of trade during the Great Depression. Trade protectionism did not cause the Great Depression, but it deepened and widened it. By far the most notorious of those harmful protectionist measures were the high Smoot-Hawley tariffs imposed by the United States in 1930, which raised US tariffs on more than 20,000 goods to record levels. The US decision to turn inward economically inspired other countries to do the same, causing a downward spiral in world trade.[8] Unfortunately, the idea of an ITO as a "third leg" of the Bretton Woods system to facilitate the freer flow of trade and investment fell victim to the isolation that soon returned following the war. Proving anew that the acts of individuals do matter in the making of history, Harry Truman simply did not have enough votes to pass the ITO in the US Senate. Fortunately, an initial international agreement on the most basic rules of trade had been negotiated as a prelude to the ITO in Havana, Cuba, in 1947—GATT. Because of the urgent need for some ground rules for trade to help guide global economic recovery from the war,

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6 Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: OECD, 2001), 125.

7 On the Bretton Woods Conference, see Benn Steil, *The Battle of Bretton Woods: John Maynard Keynes, Harry Dexter White, and the Making of the New World Order* (Princeton, NJ: Princeton University Press, 2014); and Ed Conway, *The Summit: Bretton Woods, 1944: J.M. Keynes and the Reshaping of the Global Economy* (New York: Pegasus, 2014).

8 Theodore Phalan, Deema Yazigi, and Thomas Rustici, "The Smoot-Hawley Tariff and the Great Depression," Foundation for Economic Education, February 29, 2012, https://fee.org/articles/the-smoot-hawley-tariff-and-the-great-depression/.

the GATT rules entered into force on a provisional basis.

It turned out that, as those at Bretton Woods had anticipated, the postwar world not only needed rules to facilitate the increased flow of world trade but also needed some kind of supportive institution to uphold and enforce those rules. Soon the provisional piece of paper called "the GATT" also became a permanent place called "the GATT" in Geneva, Switzerland. From this de facto trade institution in a villa on the shores of Lake Geneva, generations of trade negotiators labored through the years that followed to create a "rules-based" world trading system.

The gradual evolution of GATT into the WTO occurred over the course of nearly five decades. Through the years, the 23 countries that were the original "contracting parties" to GATT multiplied, and the limited scope of the trade coverage of GATT broadened to include most of world commerce touched by trade. Over time, what began as the international footnote of GATT grew toward maturity in what became the WTO through a series of extended and increasingly complicated "rounds" of multilateral trade negotiations involving an ever-increasing number of countries. There were eight such "rounds" during the nearly five decades between the agreement on GATT and the establishment of the WTO. The earliest were largely talks on reducing conventional trade barriers in the form of tariffs—import taxes imposed at the border. As tariffs were gradually reduced by these trade rounds, protectionists everywhere became more creative in imposing barriers to trade other than tariffs, so later rounds addressed not only tariffs but also the growing global proliferation of so-called nontariff barriers to trade. Round by round, GATT lowered many of the global barriers to trade on a multilateral basis.

The eighth round of global trade negotiations was the Uruguay Round, which began in Uruguay in 1986, concluded in Morocco in 1994, and culminated in the adoption of the Uruguay Round trade agreements. Notable among these new international agreements was the Marrakesh Agreement establishing the WTO—the "WTO treaty." Much—but not yet all—of what was originally envisaged in the charter of the ITO is found today in the text of the WTO treaty. With the historic approval of the WTO treaty, the initials on the door of the world headquarters of the world trading system in Geneva were changed from *GATT* to *WTO*.

THE ROLE OF THE WTO IN GLOBAL PROSPERITY

Contrary to popular misunderstanding in many places, the WTO is not a free trade organization, and the WTO treaty is not a free trade agreement. The WTO treaty does not require free trade. Although the abundant benefits of freeing trade are assumed in numerous provisions throughout the treaty, the

phrase "free trade" appears nowhere in the treaty. The WTO treaty is an agreement that establishes the WTO as an enabling framework for facilitating trade negotiations, trade oversight, and trade dispute settlement. The WTO is a global rule book that gives its members an opportunity to maximize their trade gains by lowering the barriers to trade.

Time and again, they have seized this opportunity. An increasing openness to trade within the international legal framework of the WTO-based world trading system has enabled more and more people in more and more countries "to reap the benefits of specialization and focus more productively on what they do best, through the sectors where they demonstrate comparative advantage. Trade has fueled competition, innovation and economies of scale, allowing the world to ration its finite resources more efficiently."[9]

Today's global economy is global in no small part because of this enabling framework of world trade rules. Since the establishment of the GATT/WTO trading system, the share of world GDP from trade has grown dramatically, and the volume of world trade has grown exponentially. During that time, the global flows of foreign direct investment have increased by even greater levels. As summarized by the WTO and World Bank, "Tariffs have fallen steadily since the end of the Second World War, along with progressive liberalization of capital controls, and greater connectivity through new technology in transportation and communications."[10] The result has been vastly increased global prosperity.

In addition to increased trade flows, today's level of global prosperity can likewise be traced, to a great extent, to the existence and persistence of a supportive legal framework for more global openness. The WTO reports, "This accelerating circle of development was only possible because the world economy grew more open and integrated. At each stage, expanding trade was a powerful driver of economic development—opening up new markets, improving access to raw materials, promoting international specialization and stimulating technological diffusion and innovation—which in turn drove further trade expansion."[11] Over a longer term, according to WTO statistics, the value of world exports of goods has multiplied more than fourfold since 1980.[12] Commercial services trade has grown even faster over the same

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9 Organisation for Economic Co-operation and Development, *Towards a More Open Trading System and Jobs Rich Growth* (Paris: OECD Publishing, 2012), 3.

10 World Trade Organization and World Bank, *The Role of Trade in Ending Poverty* (Geneva, Switzerland: World Trade Organization, 2015), 13.

11 World Trade Organization, *World Trade Report 2014: Trade and Development—Recent Trends and the Role of the WTO* (Geneva, Switzerland: World Trade Organization, 2014), 44.

12 WTO, *World Trade Report 2014.*

period.[13] Much of this trade growth can be attributed to the successes of the WTO-based multilateral system in lowering barriers to trade. The WTO secretariat has explained, "Many factors may have contributed to this remarkable expansion of trade but the fact that it coincided with a significant reduction in trade barriers is inescapable."[14]

Through all the years since the passing of GATT in 1947, there has been an international emphasis on the need for rules for trade and on the equal need for an effective international institution to support these rules. From the outset, a central part of the challenge for the world trading system has been "the development of international rules and structures capable of helping countries to coordinate their increasingly international economic interests, and of managing the powerful forces and stresses unleashed by economic change, such as the rise of new economic powers, the spread of technology and production, and the deepening of global economic integration."[15]

This challenge has been met, so far, with an unprecedented extent of global prosperity. The European countries left devastated in the wake of the Second World War have recovered and grown. Developing countries in Asia, Africa, and Latin America have advanced as well. China and India especially have lifted hundreds of millions of people from the depths of poverty. The United States has grown and prospered. The integration of the global economy has benefited every country that has chosen to connect to it. Opening up and connecting to a globalizing economy has been the key everywhere to sustained economic growth.

Yes, we are still far short of where we hope to be in achieving gains for sustainable global prosperity through the rules-based trading system of the WTO and through the ongoing endeavors of the other Bretton Woods institutions as well as other examples of international cooperation. Yes, it remains all too true that only about 16 percent of the people in the world have incomes reaching the level of the poverty line in the United States.[16] And yes, we still face many challenges in international trade, and still more new trade challenges appear and confront us every day. All the same, Martin Wolf of the *Financial Times* has it right in saying that "never before have so many people—or so large a portion of the world's people—enjoyed such large rises in their standard of living."[17] And a crucial catalyst for these and many other gains worldwide has been freer

13 WTO, *World Trade Report 2014*.

14 WTO, *World Trade Report 2014*, 55.

15 WTO, *World Trade Report 2014*, 44.

16 Rakesh Kochhar, "A Global Middle Class Is More Promise Than Reality" (Pew Research Center, Washington, DC, July 2015).

17 Martin Wolf, *Why Globalization Works* (New Haven, CT: Yale University Press, 2004), 141.

global trade through the workings of the WTO.

Much more can and must be achieved for sustainable global prosperity through continued global cooperation in the WTO. The WTO-based world trading system must be reinforced as an essential bulwark against economic unilateralism and protectionism. WTO members must prove anew that they can reach mutually beneficial multilateral solutions. Long-standing issues such as agricultural protectionism, remaining manufacturing tariffs, and other barriers to market access for trade goods must be resolved. The continuing effort to extend WTO rules to cover trade in services as well as trade in goods must succeed. WTO members must agree on new and revised rules on such 21st-century trade issues as digital trade, intellectual property, technology transfer, investment, government subsidies, and other aspects of international competition. Most of all, international trade rules must be reconciled with the emerging international rules on addressing climate change and other urgent environmental and ecological challenges. And all of this must continue to be made effective by a WTO dispute settlement system in which impartial and independent WTO judges uphold the international rule of law.

TRADE POLICY

The Legacy of Bretton Woods and the Politics of Today

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One of the most important legacies of the Bretton Woods Conference and its aftermath was the emergence of an institutional framework to govern international trade. The year 1947 brought the founding of GATT—the General Agreement on Tariffs and Trade. Though not a direct result of the Bretton Woods Conference, it was an important auxiliary institution to complement the creation of the World Bank, the International Monetary Fund, the Bank for European Reconstruction and Development, and the other financial institutions that emerged from the carnage of World War II. Like flowers sprouting in the spring soil, these institutions were followed by others on the security and economic fronts—notably the North Atlantic Treaty Organization (NATO) and the European Economic Community, the latter the precursor to the European Union.

Thirty-five years later, GATT was to morph into the World Trade Organization (WTO). While GATT had lacked any enforcement mechanisms, the WTO at least had an assembly in which all members had an equal voice, and it had a method for bringing and resolving trade disputes, albeit imperfect in both design and implementation. The groundbreaking North American Free Trade Agreement (NAFTA) and the admission of China—a growing global economy—into the WTO were also turning points in the history of global trade. It seemed to be the dawn of a new era of international cooperation on trade that would stretch for the foreseeable future and be only improved with further, broader trade agreements—both multilateral and bilateral.

Such optimism has turned out to be misplaced, as the lessons of past centuries have been either forgotten or

brushed aside. Nearly 500 years earlier, a British diplomat, Sir Thomas Smith, who fancied himself to be an economist as well, had said the British should "always take heed that we buy no more of strangers than we sell to them, [lest] we impoverish ourselves and enrich them." Two centuries later, such thinking was forcefully countered by Adam Smith, who introduced the concept of comparative advantage: each country should make what products it could do best and buy from others what those countries produced more cheaply or efficiently. Over the next century and a half, these conflicting economic views competed, accompanied by other economic theories and practices, such as those of the infamous Luddites, who smashed weaving machinery because workers would be displaced by their advent, and of Karl Marx, who argued for the redistribution of wealth.

But by the end of the 19th century, the trading world—mostly Europe and North America—had evolved into the most open and competitive trading system in a millennium. Trade in services was virtually unheard of in those days, and agricultural trade was limited to countries in near proximity by the perishable nature of the goods. So this system was about manufactured goods, but trade in those items by the early 20th century was robust and mostly unencumbered by tariffs or other limitations. Indeed, the view was widespread among European political leaders of the day that all of this trade guaranteed the interdependence of the European countries and would preclude a major conflict from erupting.

Then came World War I. An apparent interdependence in trade did not prevent countries from going to war. In the brutal aftermath of a four-year conflict, the world's trading system was in shambles—the defeated countries impoverished by crippling reparations to the victors, the victors by the sheer cost of the war in human and other resources. Less than a decade later, it was followed by a depression that plunged the world into a downward spiral of economic activity and widespread unemployment. In a frantic and fruitless effort to stave off the economic impact of the depression, countries piled tariff upon tariff, quota upon quota, and restriction upon restriction. The depression was thus turned into the Great Depression—the first truly worldwide economic decline, which engulfed the entire developed world.

The world gradually began to climb out of this dark hole, led by the United States. The reciprocal tariff arrangements negotiated by Secretary of State Cordell Hull in the 1930s began methodically to lift the crippling tariffs, one country, one product at a time. But then the world was soon plunged into another world war, and once more all nonessential, non-war-related trade came to a halt. World War II left much of the developed world in ruins but gave the United States unparalleled domination of the political and economic

apparatus that remained. And this time the country was determined not to repeat the mistake that followed the century's first world conflagration. Even as the war was at some of its darkest moments, the framework for a new world order was beginning to emerge: the Bretton Woods Conference, held even as the armies battled their way across Europe, and the organizing conference of the United Nations, which commenced days before the Nazi surrender in Europe.

A NEW INTERNATIONAL ORDER

These constructs became the foundation of the new international order that was supposed to guarantee against another world war like the two that had consumed the world in the first half of the century. But lacking was a component to manage international commerce and prevent a repetition of the ruinous tariff walls that were erected in the lead-up to the Great Depression. That gap was supposed to be filled by the International Trade Organization, but the handful of nations involved couldn't agree on the breadth or scope of such an organization. The result was a "provisional" agreement, first discussed at a United Nations conference on trade and employment, and then signed by 23 countries in Geneva in October 1947. Thus, GATT came into being with a purpose of "substantial reduction of tariffs and other trade barriers and the elimination of preferences, on a reciprocal and mutually advantageous basis."[1]

GATT became the organizing principle for seven subsequent rounds of negotiations as the organization grew from its original 23 members to 123, each round successfully reducing more tariffs and trade barriers. GATT, and its successor the WTO, steadily reduced tariffs. While the average tariff level for participating countries in the opening round was 22 percent, by the conclusion of the Uruguay Round in 1999 (13 years after it commenced), the average tariff rate was 5 percent. During that lengthy round of negotiations, the most important regional trade agreement up to that time—NAFTA—was negotiated and implemented, linking and integrating the economies of Canada, the United States, and Mexico. The United States normalized trade relations with China, opening the door for Asia's rising economic power to join the WTO.

Thus, at the beginning of the new millennium it seemed the world was entering an accelerated phase of trade liberalization. The next round of trade negotiations was launched with fanfare at Doha, Qatar, in 2001, promising to include liberalization for services—the fastest-growing component of trade.

But the next two decades resulted in a stunning reversal of trade liberalization. The Doha Round never reached agreement, the first such round of trade negotiations to end in failure since

1 *Preamble, General Agreement on Tariffs and Trade* (Geneva, Switzerland, 1947).

the inception of GATT. The Chinese engaged in flagrant efforts to obtain proprietary technology by demanding it as a condition of investment in the China market. The WTO dispute settlement mechanism has been crippled by the failure to appoint enough panelists to hear disputes. The United States withdrew from the Trans-Pacific Partnership, which would have linked 12 Pacific Rim countries in new trade arrangements, even before it could be submitted to Congress for approval. Trade disputes flared up between the United States and several major trading partners, resulting in crippling tariff penalties followed by retaliatory tariffs. NAFTA was forced into a renegotiation, the results of which remain in doubt even today.

THE REASONS FOR PROTECTIONIST SENTIMENT

What went wrong so quickly? The answer is probably that the era of good feelings about trade in the last half of the 20th century was something of an aberration and that protectionist sentiment, never far below the surface, easily filled the vacuum. But how could this be so if what Adam Smith and David Ricardo told us 250 years ago about competitive advantage and decentralized markets' creating a more abundant array of goods at lower prices is still valid economic theory today?

Again, the answer is probably found in the very nature of trade. Unlike most other economic concepts, the very notion of competitive advantage seems counterintuitive. How can it possibly be that I am better off purchasing a good from another country because it is less expensive or of better quality, when I have to forgo all the benefits of labor and profit by not making the same good myself? Such logic is easy to promulgate when one group of people receives the benefits of *production* while a much larger group of people is only dimly aware of the benefits they receive from consumption of higher-quality or less expensive products. The concept is encapsulated in what this writer has dubbed the "Kolbe mantra" of trade, to wit, *The benefits of free trade are wide and diffused; the benefits of protectionism are narrow and focused.* Who wins with this scenario? Almost invariably the group that finds a specific benefit and is sharply focused on achieving its ends.

This simple statement about trade is validated by polling data. A 2017 *Wall Street Journal*/NBC poll asked Americans if they thought free trade helped them, hurt them, or made little difference. While 43 percent of those polled said free trade had a positive impact, 34 percent thought otherwise—not a resounding endorsement of the economic argument for unrestricted trade put forth for at least 250 years. When the question was phrased differently, however, using the word "globalization," the response was quite different. Asked if the United States has gained or lost more as a result of *globalization*, the response was decisively negative—55 to 35 percent. Similarly,

when asked if trade created jobs, only 29 percent thought it did while 48 percent answered that it destroyed jobs.[2]

What we can conclude from the extensive polling data accumulated over the past several decades is that people support free trade as a concept, but not the specifics of its implementation. Perhaps the best illustration of this dilemma can be found in the restrictions the United States places on sugar imports. Sugar is found in countless products we consume every day—from cakes to jams to candy to cereals to sodas. Yet few people are aware that every product they consume with sugar costs them more because the United States strictly limits imports of sugar with rules even more onerous than tariffs—absolute quotas on the amount of sugar that can be imported. The result: consumers in the United States pay nearly double the market price for sugar paid by other parts of the world, where such restrictions do not apply. But do Americans complain about the high cost of their child's birthday cake brought home from the local bakery? Of course not. On the other hand, one can be sure that the narrower sugar producer interests are well represented by lobbyists in the halls of Congress and that the handful of workers toiling in this industry make their views known to their representatives in that same body. The bottom line is simple; while consumers would endorse the idea of inexpensive sugar, its cost in products they consume is largely hidden, and they have no voice speaking for them on the issue, whereas the producers are well organized, louder, and very focused.

The decline in support for measures that would open trade is not confined to the United States. But it is most pronounced in this country. Europe, within the narrow confines of its continent, knows instinctively that trade is the only way for countries there to prosper. The same can be said for a natural resource–poor country like Japan, while China has used and abused trading privileges to advance its economic growth at an accelerated pace.

So what is to be done to regain momentum for public support of a multilateral trading system? There are programs to assist displaced workers. Every trade agreement that goes before the US Congress includes funding for so-called Trade Adjustment Assistance (TAA)—retraining for workers who lose their jobs due to the fallout of a particular trade agreement. But these programs are often operated by labor organizations representing the displaced workers. Retraining men and women for the same type of job they just lost is likely a nonstarter. Further, it may mean moving workers to another location—also a nonstarter for the many whose

2 Jacob M. Schlesinger, "Amid Trump Attacks, Support Grows for Free Trade: WSJ/NBC News Poll Finds Democrats, Independents Increasingly Positive about Free Trade," *The Wall Street Journal*, February 26, 2017, https://www.wsj.com/articles/amid-trump-attacks-support-grows-for-free-trade-1488117600.

roots and families are in one location. TAA programs need a thorough overhaul and a broader charter if they are going to truly help displaced workers.

CREATING A NEW MESSAGE

The core problem in "selling" trade as a policy is the bad messaging that has been used for half a century or more. Economists know the theoretical underpinnings of trade and thus speak of its macro benefits—improvements in quality of life, in per capita income, and in GDP—but this theory has little meaning or value to the individual whose job was just terminated. Local communities think in terms of a new factory that will be opened and the jobs that will be created or, conversely, of factories closed and jobs lost. Businesses think of the increased market share, revenue, and profits they might enjoy as a result of a new trade agreement. Labor unions focus on the dues-paying members that might be lost when a business is moved elsewhere.

The case for trade has always been advanced as a win-win proposition. The truth is, it almost never is a win-win. There will be gains and there will be losses. We may intuitively know that the gains will outweigh the losses, but that is little compensation to the ones who feel the losses hardest—the losers.

Political and business leaders alike need to overhaul the trade message. There have to be concrete examples of jobs that are created. The message of how consumers benefit from lower prices and more choices has to be repeated over and over again, not just as an abstract concept but with specific examples of the benefits that come every day with every transaction. Fundamental economic education must be returned to the classroom. Millennials must be recruited to engage in this debate.

As a first step, the advocates for a robust multilateral trading system must recognize that though they are not winning this battle, the stakes are too high to leave the playing field. We must engage on many fronts. The entire multilateral structure of financial institutions, political institutions, and even our security arrangements depends on our ability to engage in international commerce. Nothing less than our freedom and our democracy are at stake.

UPGRADING AND STRENGTHENING THE WORLD TRADE ORGANIZATION

CARLA A. HILLS
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These are turbulent times economically, politically, and technologically that are affecting domestic, bilateral, and global relationships. Brexit, the growth of nationalist parties across Europe, the decline of market reform in China, and the 2016 presidential election in the United States are all signs of a backlash against trade and globalization.

The world cannot afford to turn inward. History persuades that free trade and open markets promote global peace and prosperity. The policies of high tariffs, currency devaluation, and discriminatory trade arrangements adopted by governments in the 1930s to counter the Great Depression ignited intense international friction without improving the global economy.

A HISTORY OF INTERNATIONAL CONSENSUS

After World War II, to avoid a repetition of the disastrous economic policies of the 1930s and to rebuild the shattered postwar economies, the United States and its allies engaged in a series of negotiations to establish rules to govern the postwar international economy. At the Bretton Woods Conference in 1944, representatives from 43 nations agreed to create the International Monetary Fund to harmonize nations' monetary policies and the World Bank to provide loans for development and recovery from the war. The intention was also to create an International Trade Organization to oversee a multilateral agreement for reciprocal tariff reduction. A charter was drafted,

and although submitted repeatedly to the US Congress, it was never approved, and as a result no other nation ratified it.

In 1947, however, 23 like-minded governments met in Geneva and agreed to and signed the General Agreement on Tariffs and Trade (GATT), along with a protocol committing to cut tariffs. Over the next 43 years, until the creation of the World Trade Organization (WTO) in 1995, GATT continued to attract additional member nations and to serve as the organization to oversee rules governing international commercial relations. As a result of seven successive rounds of trade negotiations, GATT members steadily expanded their agreements to reduce their tariffs.

The eighth round, known as the Uruguay Round, that began in 1986 and involved 123 member nations, created the WTO, which incorporated the GATT rules. It also established a number of new market-opening measures covering services, investment, agriculture, and the protection of intellectual property. Most important, the participants included in the WTO provisions a dispute settlement mechanism as a more effective means to resolve trade disputes and a trade policy review mechanism to strengthen trade discipline by regularly reviewing members' trade policies and practices.

Today the WTO has 164 members that have committed to abide by WTO rules that support open markets and require nondiscriminatory and national treatment for foreign entrepreneurs. These basic disciplines have generated substantial economic benefits through increased global trade and investment. According to the World Bank, global GDP, which was roughly US$31 trillion in 1995, more than doubled to roughly US$76 trillion in 2016. GDP in the United States climbed from US$8 trillion to US$17 trillion in the same period. Developing as well as developed countries benefited, and millions of people were lifted out of abject poverty.

CHANGING ATTITUDES

In spite of these documented benefits flowing from the increase in international trade and investment, today, protection is on the rise. According to the WTO's 19th monitoring report covering G20 trade measures for the period between May 16 and October 15, 2018, the G20 governments applied 40 new trade-restrictive measures, covering an estimated US$481 billion in trade, six times larger than recorded in the previous six-month reporting period and the largest since the first calculation, in 2012. The report expressed concern that uncertainty created by this proliferation of trade-restrictive actions could jeopardize economic recovery.[1]

Increasingly, members are expressing concerns about the lack of effective rules to deal with the non-market-oriented

1 World Trade Organization, "Report on G20 Trade Measures: Mid-October 2017 to Mid-May 2018" (World Trade Organization, Geneva, Switzerland, July 2018), https://www.wto.org/english/news_e/news18_e/g20_wto_report_july18_e.pdf.

policies and restrictive practices being implemented by some members. They point to a range of actions by governments that include (1) granting industrial subsidies to state-owned enterprises (SOEs) without notifying the WTO as required, (2) exerting pressure on foreign investors to transfer technology to domestic enterprises, (3) limiting foreign investment in specified sectors, and (4) failing to protect and engaging in the theft of foreign entrepreneurs' intellectual property.

In addition, a number of economic activities that are important now were not significant in the international market two decades ago. For example, SOEs are much more commercially active in the global market today and too often are not guided by market principles. Also, the 21st-century economy is linked far more closely to technology than that of the 20th century. Digital activity has become a critical component of global trade. According to the most recent estimates made by the United Nations Conference on Trade and Development (UNCTAD), "e-commerce includes both business-to-business (B2B) and business-to-consumer (B2C), valued respectively at around [US]$19.9 trillion and [US]$2.2 trillion each."[2] In addition, concerns have been expressed about the adequacy of the WTO dispute settlement mechanism, particularly that of the Appellate Body, which has been accused of overreach in its review of cases.

There is little debate that today the WTO, launched 24 years ago as a forum for negotiating global trade rules and resolving trade differences, needs to develop new rules to deal with these and other issues that create friction among members, lest we lose the substantial benefits that we derive from fair, open, and predictable global trade. However, skepticism abounds about the likelihood of new rules when the views among the 164 members are diverse and the adoption of new rules requires a consensus.

ROAD MAP TO SOLUTIONS

The history of Bretton Woods could provide a useful road map. There, 23 like-minded governments made a difference by creating GATT, which had grown to 123 members by 1994, when the WTO was created. Similarly, the Information Technology Agreement began in 1996 with 29 members and now has 82. Today a group of like-minded members could use those examples as the incentive to develop solutions to the concerns that threaten the WTO, making it more effective in addressing its mission and more respected by the full membership.

Perhaps a start is that EU Commissioner for Trade Malmström; Japan's Minister of Economy, Trade and Industry Seko;

2 "New Initiative to Help Developing Countries Grasp $22 trillion e-commerce Opportunity," United Nations Conference on Trade and Development, last modified July 19, 2016, https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=1281.

and US Trade Representative Lighthizer met on the sidelines of the WTO ministerial conference in Buenos Aires in December 2017 and three times in 2018 to discuss "non-market-oriented policies and practices that lead to severe overcapacity, create unfair competitive conditions for our workers and businesses, hinder the development and use of innovative technologies and undermine the proper functioning of international trade."[3] They have agreed to take initial joint action, among other things, "to define the basis for the development of stronger rules on industrial subsidies and to collaborate on maintaining existing disciplines, to tackle the issues of market distortion or overcapacity" and "to enforce existing rules by working jointly on current and new disputes in the WTO."[4]

If these three governments that represent close to half the global economy can come up with concrete proposals and appropriate rules, along with a reasonable strategy, there is a chance that they can attract others to join them. And other groups are forming.

In October 2018, the Canadian government convened a small group of like-minded ministers committed to the multilateral trading system with the stated objective "to identify concrete and tangible ways the operation and function of the WTO could be enhanced and improved over the short, medium, and long term."[5] In addition to Canada, Australia, Brazil, Chile, the European Union, Japan, Kenya, Mexico, New Zealand, Norway, Singapore, South Korea, and Switzerland joined. These 13 governments together represent nearly half of global nominal GDP.

These two groups could be even more effective if they worked together to develop a plan to upgrade the WTO rules to cover the 21st-century economy and current market conditions. Some may not wish to participate and therefore drop out, but there may be other like-minded members willing to join. A collaborative effort to stop the violations of existing global trade rules by governments representing a substantial share of the global economy would be far more effective than the questionable unilateral actions that have been employed to date.

COLLABORATION TO ADDRESS CONCERNS ABOUT CHINA

Today the most serious concerns about non-market-oriented policies that undermine the WTO's basic principles of national treatment and nondiscrimination are focused on China. The

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3 Office of the United States Trade Representative, "Joint Statement on Trilateral Meeting of the Trade Ministers of the United States, Japan, and the European Union," last modified May 31, 2018, https://ustr.gov/about-us/policy-offices/press-office/press-releases/2018/may/joint-statement-trilateral-meeting.

4 Ibid.

5 See "Strengthening and Modernizing the WTO: Discussion Paper," JOB/GC/201 (September 24, 2018).

commitments that China made in its protocol of accession to join the WTO in 2001 give both strength and credibility to a strong collaborative effort to persuade it to comply with these basic principles and to end restrictions on foreign ownership of companies in specified sectors, forced technology transfers, discriminatory licensing, discriminatory government subsidies, and theft of intellectual property, all of which violate the basic market-oriented principles of the WTO.

A negotiation led by like-minded governments seeking changes in specific practices to ensure compliance with WTO rules should seek to persuade China that the changes sought are based on a deep concern for the future of the rules-based global economy that has benefited all nations, and none more than China. To avoid debating whether a particular WTO rule prohibits a specific economic policy, it should be made clear that article 23 of GATT, from the beginning, has sought to protect all WTO members from any action by another member that would "nullify and impair" the benefits flowing from a fair and open trading system, whether or not that action conflicts with specific provisions of the 1994 GATT.

Several respected experts in law[6] have concluded that the best course of action would be for members to proceed now to bring an Article 23 "nullification and impairment" case to the WTO against China, focusing on its market-restricting practices. In my view, before filing such a case at the WTO, the like-minded governments should develop a plan setting forth the actions that China needs to take to achieve WTO compliance and join in discussing with China how and over what time frame corrective action can be taken. Since China's economy is slowing in large measure as a result of its government's funneling capital to unprofitable state-run monopolies that squeeze out the vibrant private sector, a change in policy would not only reduce tensions over its lack of WTO compliance but strengthen China's economy. Holding such a negotiation could reduce friction and create a greater potential for reaching a positive outcome in an efficient manner than going directly to litigation at the WTO. And it does not foreclose litigation if the discussions come to naught.

We need a strategy developed by like-minded governments to ensure that we have strong rules to protect a free and fair 21st-century market economy. It

6 See, for example, the June 8, 2018, testimony before the US-China Economic and Security Review Commission of Jennifer Hillman, former member of the WTO Appellate Body and commissioner of the US International Trade Commission, and current professor at Georgetown University Law Center. Jennifer Hillman, "The Best Way to Address China's Unfair Policies and Practices Is through a Big, Bold Multilateral Case at the WTO" (Statement as delivered by Ambassador Dennis Shea, WTO General Council, Geneva, Switzerland, May 8, 2018), https://www.uscc.gov/sites/default/files/Hillman%20Testimony%20US%20China%20Comm%20w%20Appendix%20A.pdf.

will take substantial effort. But it is time for member governments to recall the courage and persistence of those attending the Bretton Woods Conference 75 years ago and to stand up and defend the WTO that has contributed so much to international growth and stability for more than a half century.

Delegates Mikhail Stepanovich Stepanov (USSR), John Maynard Keynes (UK) and Vladimir Rybar (Yugoslavia) at the Bretton Woods Conference in 1944.

Source: Hulton Archive/Getty Images

FORCES OF CHANGE

BANK-FUND
Facing the Rising Challenges of Corruption

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Corruption—the abuse of entrusted power for private gain—was not on the agenda at the birth of the Bretton Woods institutions, nor at their 50th anniversary. Today, however, it is a prime concern for all official multilateral development and economic organizations.

The scale and impact of corruption not only remain major challenges to the successful implementation of the missions of the Bretton Woods institutions but represent increasing threats to security, the environment, and the world's most vulnerable peoples. The 75th anniversary of the founding conference in Bretton Woods needs to be recalled a generation from now as the time when the World Bank and International Monetary Fund (IMF) committed to far more effective actions to confront corruption across all of their member countries.

Quantifying the costs of corruption is at best a matter of informed guesswork: the IMF estimates that it could be between US$1.5 trillion and US$2 trillion annually, or around 2 percent

of global GDP.[1] Approximately two-thirds of the 180 nations surveyed for the 2018 Transparency International Corruption Perceptions Index (CPI)[2] were seen as having high to very high levels of corruption.

Still, the statistics and general surveys fail to reflect adequately the extent of the damage done by corruption. Corruption, to use the IMF's jargon, is a major macro-prudential concern. Put more bluntly, government-promoted corruption in scores of countries is distorting economic progress, misallocating budgets, rendering public procurement inefficient, entrenching poverty, threatening financial crises, and adding to environmental destruction.

The extraordinary economic difficulties faced by such countries as Nigeria, Pakistan, Ukraine, Venezuela, and many others are largely the result of high levels of kleptocracy—theft of government financial resources by senior public officials. In each of these cases, and many more, the World Bank and the IMF have critical roles in acting to reduce graft and strengthen public transparency in all aspects of government activity.

ACCEPTING THE CORRUPTION PRIORITY

It is useful to recall that the core reason for the meeting at the Brookings Institution in January 1982, which was to lead to the establishment of the Bretton Woods Committee, was an international development assistance (IDA) funding crisis. The development assistance needs of the poorest nations were formidable and, truth be told, one of the reasons was the extensive mismanagement and misuse of fiscal resources in these countries. While the World Bank did not use the word *corruption* at the time, securing efficient use of financial resources was a key component of the Bank's then new sub-Saharan African adjustment programs.

It was at that conference that then World Bank President A.W. Clausen[3] called on leaders of the private sector to come together to actively support the missions and goals of the Bretton Woods institutions. He not only stressed the core humanitarian challenges that IDA grants aimed to meet, but he argued that it was in the self-interest of the more prosperous nations of the world, together with the Bank's private-sector

1 See International Monetary Fund, "Corruption: Costs and Mitigating Strategies" (IMF Staff Discussion Note 16/05, International Monetary Fund, Washington, DC, May 2016); and Christine Lagarde, "Addressing Corruption with Clarity" (Address by IMF Managing Director Christine Lagarde, Brookings Institution, Washington, DC, September 18, 2017).

2 Data from Transparency International, Corruption Perceptions Index 2018, February 2019, https://www.transparency.org/cpi2018. The CPI is a poll of polls that calculates scores for the public perception of corruption in countries. A score of 100 indicates zero corruption; 122 out of 180 countries included in the report had a score of 49 or lower.

3 Comments made by A.W. Clausen at the Brookings Institution in early 1982 reflected his address to the World Bank's board of governors in Washington, DC, on September 29, 1981.

partners, that the poorer nations attain sustained economic success.

In 1988, when Barber Conable was the Bank's president, an important World Bank report on poverty in Africa explicitly noted the challenges that corruption posed to economic development. It stated, for example, that conditions in a number of African states were characterized by "a high level of corruption, misuse of funds, side payments to political allies, deportation of opponents, or a high level of coercion."[4]

Interestingly, former World Bank President Robert S. McNamara traveled from Washington to Berlin in May 1993 to attend the launch conference of Transparency International, the first global anticorruption nongovernmental organization. He stressed publicly at that time that one of his greatest regrets was not having made fighting corruption a major Bank priority when he served as president.

Finally, in 1996, corruption entered the lexicon of the Bretton Woods institutions. In his first year as World Bank president, James D. Wolfensohn concluded that the efficient uses of development assistance grants and credits demanded recognition of corruption risks and actions to mitigate those risks.[5] In 1997, under then IMF Managing Director Michel Camdessus, the Fund announced its commitment to anticorruption goals, and this was swiftly seen as an important part of fund conditionality in programs to countries embroiled in the 1997/98 Asian financial crisis. Under Wolfensohn's leadership, major diplomatic efforts in the latter part of the 1990s elevated anticorruption policies from oblivion to center stage on the agendas of all of the major multilateral development banks, including the regional institutions for Africa, Asia, and Latin America, as well as an increasing number of bilateral aid agencies.

MANDATE FOR ACTION

Within both the World Bank and the IMF, there has been a broad recognition in recent years of shortcomings in institutional anticorruption practices. For example, recognizing severe World Bank practical difficulties in investigating corruption in procurement contracting, the leadership of the Bank asked Paul A. Volcker to head a review committee.[6] Volcker had earlier headed investigations into corruption at the United Nations and drew on that experience to advocate tough new measures at the World Bank. His committee's findings were to contribute,

4 World Bank Economic Development Institute, "The Political Economy of Sub-Saharan Africa" (World Bank, Washington, DC, August 1988).

5 James D. Wolfensohn, "People and Development" (Annual Meetings Address, World Bank, Washington, DC, October 1, 1996).

6 Paul A. Volcker, Gustavo Gaviria, John Githongo, Ben W. Heineman Jr., Walter Van Gerven, and John Vereker, "Independent Panel Review of the World Bank Group Department of Institutional Integrity" (World Bank, Washington, DC, September 2007).

over time, to significant successes in the Bank's Integrity Vice Presidency unit and to the setting of standards for investigations and corporate suspensions that have become the model for the major regional development banks: the African Development Bank, Asian Development Bank, Asian Infrastructure Investment Bank, European Bank for Reconstruction and Development, and Inter-American Development Bank.

Managing Director Christine Lagarde launched a comprehensive review of the IMF's anticorruption framework, which concluded, in 2018, that the case is compelling for the IMF to deepen its work in this area considerably.[7] This comes at a time when both the IMF and the World Bank are bound to adhere to the UN's Sustainable Development Goals (SDGs), which came into force in 2016 and include, in SDG 16, the explicit call for all governments to "substantially reduce corruption and bribery in all their forms."

Meetings of global leaders at their annual G20 summit conferences in recent years have repeatedly endorsed the importance of multilateral institutions' pursuing anticorruption strategies. Unquestionably, the Bretton Woods institutions have a gold-plated mandate, but will effective action follow fine rhetoric?

The record of their performance in recent years has been mixed. Both institutions need to find ways to ensure that their approaches are more comprehensive and robust—in terms of implementation, monitoring, and enforcement.

ILLICIT FINANCE

Illicit financial flows across national borders, including proceeds from tax evasion, organized crime (notably narcotics), and government corruption, now amount to hundreds of billions of dollars. The US Treasury estimates that the United States alone probably receives an annual inflow of US$300 billion in laundered cash.[8] Excluding the proceeds of tax evasion, Global Financial Integrity estimates the annual volume of illicit cross-border financial flows at around US$1 trillion.[9] These funds add to poverty by robbing national treasuries of crucial resources to support domestic development, undermine sound regulation of the international financial system and weaken its institutions, and distort investment markets.

7 International Monetary Fund, "Review of 1997 Guidance Note on Governance—A Proposed Framework for Enhanced Fund Engagement" (IMF Policy Paper, International Monetary Fund, Washington, DC, March 2018), https://www.imf.org/~/media/Files/Publications/PP/2018/pp030918govpaper.ashx.

8 US Treasury, "National Strategy for Combating Terrorist and Other Illicit Financing" (US Treasury, Washington, DC, December 2018), https://home.treasury.gov/system/files/136/nationalstrategyforcombatingterroristandotherillicitfinancing.pdf.

9 Global Financial Integrity, "Illicit Financial Flows to and from 148 Developing Countries: 2006–2015" (Global Financial Integrity, Washington, DC, January 2019).

The IMF has played an important role in recent years in providing technical assistance to central banks to guard against money laundering.[10] Given the scale of the problem, however, the IMF should expand its work in this area and enhance its cooperation with other institutions, such as the Financial Action Task Force of the Organisation for Economic Co-operation and Development (OECD). The challenge will be all the more complex in coming years as cryptocurrencies play a rising role in illicit finance.

Far more extensive cooperation between the world's leading banks and the IMF on the stage of illicit finance is also warranted. While the banks have introduced increasingly sophisticated compliance systems to guard against suspicious transactions, the latest evidence, according to the US Treasury,[11] suggests that substantial sums of money continue to be laundered through the banking system. The IMF might well take the lead in bringing together the central banks and the commercial banks to forge better safeguards against all forms of illicit finance.

A number of major global banks have settled money-laundering cases brought by US and European authorities, paying record-level fines. More such cases are now being pursued, for example, with regard to Danske Bank, Deutsche Bank, and ING. Research by the G30 shows deficits at many major banks when it comes to ensuring that culture and conduct assign the highest priority to integrity.[12] The IMF needs to join with leading central banks by adding its voice to encourage leading banks to make greater commitments to anti–money laundering efforts and by stressing the dangers to the international financial system if this does not happen.

Importantly, IMF officials privately concede that they need to do more by explicitly raising issues of illicit finance with the governments of major Western developed economies, whose capital markets provide safe investment havens for so much of the illicit cash. Laws, and their enforcement, to reveal the true beneficial ownership of vast numbers of holding companies registered in offshore havens remain weak. Insufficient effective action is seen in the United States, the UK, and numerous other countries to require real estate brokers to pursue meaningful know-your-customer due diligence on their clients. The IMF should use its Article IV consultations as the mechanism to raise such issues with its leading shareholder member countries.

Curbing money laundering is—and this needs to be underscored—*an issue of international security.* Illicit cash funds

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10 "The IMF and the Fight Against Money Laundering and the Financing of Terrorism" (International Monetary Fund Factsheet, International Monetary Fund, Washington, DC, March 2018).

11 "The IMF and the Fight Against Money Laundering."

12 The Group of Thirty, "Banking Conduct and Culture: A Permanent Mindset Change" (G30, Washington, DC, 2018); The Group of Thirty, "Banking Conduct and Culture: A Call for Sustained and Comprehensive Reform" (G30, Washington, DC, 2015).

terrorism and the illegal export of weapons and weapons systems. Bribery and dirty cash are the enabling mechanisms for narcotics trade, ivory smuggling, vast product counterfeiting, and human trafficking that today enslaves a record of more than 26 million people. The imperative for the IMF, in particular, to work with many other players to find solutions and counter transborder illicit financial flows, needs to be a central priority in coming years.

LAW ENFORCEMENT

Laundered cash, of course, is the product of crime, including governmental corruption, and therefore the World Bank and IMF will need to push far harder and use their leverage to influence changes to public policy and public accountability in many of their member countries. For the Bank, the challenge starts with law enforcement. It has worked constructively over the years to help governments improve their court systems, establish anticorruption commissions, and take other supportive measures. But surveys in many of the world's poorest countries show that police extortion of small bribes from the poorest citizens is seen as the single greatest area of petty corruption. Why is this?

In part, the answer rests on the exceptionally low level of pay to police officers, which encourages them to supplement their incomes through extortion.[13] In part, the answer relates to systems in numerous countries that institutionalize police corruption. For example, reports from one country show that police units pay their senior officers high amounts on a regular basis for duty at airports, where they can engage with wealthy people; somewhat lesser amounts to be on duty on major highways, where they can "inspect" middle-income travelers and truckers; and in comparison, low amounts for assignments to poorer locations. And these senior officers, in turn, pay top criminal justice officials for these positions.

These entrenched systems prevail in part because public prosecutors and judges turn a blind eye—they are appointed to do so and are part of the corrupt systems. Ultimately, the World Bank, among others, faces not a technical but a political challenge when seeking to introduce integrity into law enforcement in many countries. When top officials and lowly police officers all know that they will not be prosecuted for corruption, then they indulge.

When James Wolfensohn decided that the World Bank must confront "the cancer of corruption," he challenged the Bank's lawyers, who argued that this was a political matter and thus in contradiction to the Bank's articles of agreement. Wolfensohn prevailed, and as we look ahead, the Bank's leaders

13 Transparency International and Afrobarometer, "People and Corruption: Africa Survey" (Global Corruption Barometer 2015/16/17, Transparency International, Berlin 2015). The survey covered 28 countries in depth.

need to assess how best to engage with national authorities on the complex political issues that are key to building systems of law enforcement that are honest, win respect, and serve as meaningful counters to both grand and petty corruption.

RECONSTRUCTION

The International Bank for Reconstruction and Development (to use the World Bank's formal title) started its work over 70 years ago by supporting post–World War II reconstruction. This mission continues to be important, as underscored by conditions in, for example, Afghanistan and Iraq, and the likely prospect in due course of massive reconstruction needs, to take further examples, in South Sudan, Syria, and Yemen. These countries at war have seen the breakdown of law enforcement and the emergence of extraordinary levels of corruption. The Bank and its multilateral and bilateral aid partners will be tested as they develop programs to secure the institutional capacity necessary to reestablish justice and effective anticorruption enforcement.

In each of these country situations, not only do the Bretton Woods institutions have direct roles to play as lenders, but they are central to convening international long-term undertakings. They have, indeed, opportunities to ensure that all creditors—multilateral, bilateral, and private-sector—place anticorruption activities at the core of reconstruction and development projects. Lessons from reconstruction and development programs in Afghanistan underscore that support for building institutions to ensure law enforcement is of paramount importance in reconstruction strategies. Reports by the US Special Inspector General for Afghanistan Reconstruction on both multilateral trust fund programs led by the World Bank as well as the bilateral programs of the United States—which have involved outlays of over US$10 billion and US$125 billion, respectively—stress that inadequate safeguards in this area can result in foreign aid inflows' increasing, not reducing, corruption.[14]

NATURAL RESOURCES

Corruption at the highest levels of government and in partnership with organized crime and multinational corporations is doing enormous damage in many resource-rich countries, from Angola to Malaysia. The humanitarian consequences are severe, as is evident, for example, in the rising numbers of refugees from resource-rich countries—Venezuela is an outstanding and tragic case. The country's once enormous

14 See quarterly reports of the US Special Inspector General for Afghanistan Reconstruction, particularly "Afghanistan Reconstruction Trust Fund: The World Bank Needs to Improve How It Monitors Implementation, Shares Information, and Determines the Impact of Donor Contributions" (SIGAR 18-42 Audit Report Afghanistan Reconstruction Trust Fund, Special Inspector General for Afghanistan Reconstruction, Washington, DC, April 2018).

oil-related income has failed to lift living standards; quite the contrary, the failures of government have created an extraordinary humanitarian crisis. Leadership in addressing such crises and their underlying causes needs to become a higher priority in the World Bank.

Research by the Natural Resources Governance Institute[15] shows that about 80 percent of the resource-rich countries that it surveyed were weak, poor, or failing in their governance of extractive industries. Programs that powerfully promote anticorruption actions provide clear paths out of abject poverty for most of the 1.8 billion people who live in these countries—nations that have, in many cases, been borrowers from the World Bank over several decades.

A study in 2013 by the African Progress Panel,[16] then chaired by former UN Secretary-General Kofi Annan, provided compelling details on the degree to which massive poverty in some 20 natural resources–rich sub-Saharan African countries is the major cause of extraordinary income inequality, with hundreds of millions of people trapped in humanitarian conditions that are among the world's worst. Public housing, schools, sanitary systems, and clinics are not being built because the revenues from extractive activities that should be used for these purposes are being plundered by top government officials and their cronies, and invested in the world's leading capital markets instead.

The failure to counter corruption in these countries contributes to environmental destruction, insecurity, and destitution, which leads to a rising tide of migration as global refugee numbers reach record levels. The destabilization of these economies, to a considerable degree due to corruption, has led to the rise of terrorist organizations, such as Boko Haram and al-Shabaab, and contributed to the massive violence in, for example, the Democratic Republic of the Congo and South Sudan.[17]

And with respect to the environment, consider illicit logging and its massive destruction of many rain forests, as well as the concomitant damage to indigenous peoples through organized crime syndicates that bribe government officials. This activity may well account today for as much as 30 percent of total global sales of wood products, with annual revenues

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15 Natural Resources Governance Institute, "Resource Governance Index 2017" (Natural Resources Governance Institute, New York, 2017).

16 Africa Progress Panel, "Equity in Extractives" (Africa Progress Panel, Geneva, Switzerland, 2013).

17 For example, see "Jihad's Next Battleground: The Fight Against Islamic State Is Moving to Africa," *The Economist*, July 14, 2018; research by Sarah Chayes at the Carnegie Endowment for International Peace; and Tom Burgis, *The Looting Machine: Warlords, Oligarchs, Corporations, Smugglers, and the Theft of Africa's Wealth* (New York: Public Affairs, 2015).

equal to those of the international narcotics trade.[18]

In sum, the plunder of royalties, license fees, and profits from the extraction of oil, gas, and minerals in many countries directly results in extraordinary avoidable poverty, and the World Bank is better equipped than any other institution to launch a major multiyear campaign to address what is now an extraordinary crisis. The Bank has extensive data on the prevailing conditions and the threats. Its leaders are likely to be judged in coming years by how effectively they address these issues. Without a far more effective set of tools and a much sharper focus, the Bank will fail to meet its own goal, and that of the SDGs, to see the eradication of absolute poverty by 2030.

INFRASTRUCTURE DEVELOPMENT AND FINANCE

Such a failure to meet goals is also the inevitable conclusion if the World Bank and other multilateral development banks, including the new Asian Infrastructure and Investment Bank, fail to monitor and enforce anticorruption approaches in all aspects of their infrastructure lending. Infrastructure accounts for the largest share of approximately US$9.5 trillion of worldwide annual public contracting. According to the Open Contracting Partnership, "57 percent of foreign bribery cases prosecuted under the OECD Anti-bribery Convention involved bribes to obtain public contracts. According to a 2013 Eurobarometer survey, more than 30 percent of companies participating in EU public procurement say corruption prevented them from winning a contract."[19]

The World Bank and other multilateral and bilateral lenders have accepted opacity in some governments when it comes to public contracting and subcontracting. In some countries, military establishments have wielded exceptional influence, controlling large parts of national budgets and blocking the public transparency of many projects on the grounds of national security. Neither the Bank nor the IMF has publicly and explicitly challenged military establishments in its member countries over their extensive engagement in public contracting.

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18 According to Professor Ray Fisman and Miriam A. Golden, "Interpol estimates that illegal logging—logging in violation of laws or regulations in the country of origin—contributes nearly a third of the wood on the global market, and somewhat between 50 percent and 90 percent of the volume of wood leaving the world's main producer countries in the Amazon basin, central Africa and Southeast Asia. The value of the illegal timber exports is comparable to the production value of the global drug trade." Fisman and Golden, *Corruption: What Everyone Needs to Know* (Oxford, UK: Oxford University Press, 2016). See also Interpol, "Uncovering the Risks of Corruption in the Forestry Sector" (International Criminal Police Organization, Lyon, France, 2016).

19 Open Contracting Partnership, "Why Open Contracting," accessed May 2018, https://www.open-contracting.org/why-open-contracting/. The Open Contracting Partnership is an advocacy and consulting enterprise.

Many of the largest cases brought against multinational corporations under the OECD Anti-bribery Convention and the US Foreign Corrupt Practices Act have involved kickbacks to foreign government officials in return for large-scale infrastructure contracts. For example, joint US and Brazilian investigations of Odebrecht, the largest construction company in Latin America, concluded that the firm paid bribes to government officials in possibly as many as a dozen countries in the region.

Many of the largest infrastructure projects involve significant financing from banks, and here, too, there is scope not only for opaque transactions but also for the banks and project contractors to evade environmental norms and standards. The World Bank has diverse partnership channels with private finance, from its cofinancing operations to the expanding portfolio of investments under the International Finance Corporation. The Bank needs to provide bolder leadership in its diverse ventures with private finance to emphasize transparency and ensure sound monitoring and enforcement of anticorruption standards.

Adding yet another level of complexity in public contracting is the fact that some of the largest corruption scandals, from Brazil to South Africa, have involved major state-owned enterprises (SOEs) that are large-scale infrastructure developers. Neither the World Bank nor the IMF has assigned noteworthy priority to monitoring for corruption in SOEs.

Recent internal research by the IMF on corruption and fiscal policy highlights this area, noting that top government officials' allocation of funds to SOEs may at times prove to be effective mechanisms for the officials' own enrichment, and also that SOEs play an important role in providing employment for corrupt associates of top politicians and officials. Finally, as the Petrobras scandal, for example, has revealed, SOEs are frequently used as prime sources of political party financing.

IMF research into fiscal affairs highlights corruption in both revenue collection (we have seen all too clearly in many countries, following one debt crisis after another, that governments have too often failed to collect tax revenues efficiently, with bribes to tax collectors being part of the problem) and the disbursement of tax revenues. Decisions by top officials to allocate resources in one area rather than another may be due to kickbacks and graft in general, just as decisions to allocate public contracts to one vendor rather than another may have similar causes and lead to overpaying for inefficient services.

FUTURE COLLABORATION

Thus, many of the particular aspects of corruption that emerge as areas of central importance to the World Bank and the IMF come together to force the conclusion that the coming years will test these institutions. As Managing Director Lagarde recognized, anticorruption approaches need to be mainstreamed

into the work of the IMF. The World Bank needs to do the same—it cannot view good governance as just one of many areas of interest: it is integral to virtually all of the Bank's activities.

The Bank and the Fund will need to forge effective mechanisms for joint anticorruption structural adjustment programs. Partial reforms simply will not be adequate. To address one area of anticorruption work and ignore others would be counterproductive. Moreover, as the institutions move more explicitly to the heart of national governance issues in the interests of the overwhelming majority of the citizens of their member countries, they need to engage with citizens more directly.

In recent times, the IMF has sought to do just that in Ukraine, where it recognized that it needed to work with many stakeholders outside government to convince the government to put essential law enforcement reforms in place. During its work in Ukraine, the Fund has understood that overcoming political opposition demanded that it work in close partnership with a range of governmental and nongovernmental organizations in a continuing effort. The Fund is learning lessons from this experience that need to inform much of its future work in many countries and in cooperation with the World Bank.

The IMF's Christine Lagarde and the World Bank's new president, David Malpass, will be challenged in coming years to mobilize the skills and resources of their respective institutions to formidably strengthen anticorruption programs. They have no choice; corruption is a rising threat to issues that are at the core of the mission of the Bretton Woods twins: the soundness of the global financial system and the development of the human condition.

A CALL FOR EXCEPTIONAL BUSINESS LEADERSHIP

GAIL KELLY

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To be an exceptional, acknowledged, and trusted business leader in today's world is extremely challenging. Much more so, it seems to me, than was the case in the years preglobalization, pre–the onset of the fourth industrial revolution and the global financial crisis of 2008/09. Those were the years when "the business of business is business" was widely accepted as truth. Maximize profits for shareholders, and the efficiency of the free market system will do the rest. To affect the outputs in any given situation, senior managers set themselves up to control the inputs. Strength, clarity of direction, discipline, and follow-through were the requirements. Hierarchy and structure mattered, reinforcing power and influence. All in all, this was a simpler, clearer leadership model, and when well executed, it seemed to work. For the short term, at least.

Today's world feels contextually different. It is one of profound change. All around us, we see and experience the effects of hyperconnectivity, speed, uncertainty, the weakening of global institutions, anger toward the "elites," intolerance, polarization, and a damaging breakdown of trust. Big business is explicitly part of this landscape and, indeed, has a lot to answer for—financial institutions in particular. How is it, people may ask, that banks and their leaders were bailed out at the time of the 2009 financial crisis while ordinary citizens were not? Men and women in many countries around the world lost their businesses, their livelihoods, their homes, and their sense of self-worth. Millions of people have borne witness to a failure of culture and a failure of leadership on an epic scale.

WANTED: EXCEPTIONAL BUSINESS LEADERS

Today, a decade on from the 2009 crisis, organizational culture understandably occupies center stage. Many studies have emerged and papers been written discussing what went wrong, what needs to change, and how to go about it. To address culture, first you need to address leadership. And in the context of today's troubled world, there comes a cry for exceptional business leadership to help heal and bind, to assist communities and individuals to adapt and change. The cry is loud and the need is obvious.

Exceptional business leadership starts with purpose—not just what the organization seeks to do, but why it matters. Fundamentally, why does the organization exist? Quite clearly, the business of business can no longer be so narrowly defined as "just business." Businesses exist to serve society; indeed they are integrally connected to their communities. Financial institutions are excellent examples. At the most fundamental level, banks are here to help customers by seeking to understand their needs and putting their interests first; they are here to help employees by providing rewarding and meaningful jobs, coupled with opportunities for growth and development; they play a crucial role in supporting the well-being of communities through influencing public policy debate and actively engaging with government. In times of disaster, they deliver on-the-ground practical support.

Exceptional business leaders understand the need to clearly define and then articulate purpose (the "why"). At every turn, it is their role to communicate it, bringing it to life for different stakeholder groups. Even more crucially, they understand the imperative of lining up every element of the organization behind its stated purpose. Alignment, alignment, alignment. It is often said that culture is best understood by what happens when no one is looking. When no one is looking, is the organization's purpose being delivered? Are the policies, practices, values, and behaviors in sync? As leaders, do we measure, track, and reward what we say we value? Do we tell stories and use examples to reinforce and make clear, in everyday terms, what we stand for? Do we check and verify, not hiding behind trends and averages but looking for the outliers, assessing treatment of the most vulnerable, those with the smallest voices? Do we guard against complacency, watching closely for any signs of arrogance?

All of this takes enormous energy and determination. It requires courage and holding onto a long-term view. Exceptional business leaders know this. And they know it is especially daunting because from a personal perspective, nothing less than absolute authenticity and transparency will do. It is how you behave, day in and day out, that matters. Exceptional leaders lead by example; they set the tone.

THE GENEROUS-SPIRITED LEADER

Let me now turn to what is certainly the central element on which exceptional leadership depends—the leadership of others. As discussed at the outset of this essay, leading others has never been easy, but in today's fast-paced, hyper-connected, media-saturated world, the challenge is heightened. Driven by new technologies, both the nature of work and the way it gets done are undergoing profound changes. Required skills and capabilities are being redefined. Workers are being challenged to be more innovative and more creative, and as traditional boundaries blur and give way, collaboration, agility, and learning as you go become essential. In this environment, leading from the corner office, utilizing the traditional command-and-control style, believing that it is possible to control what happens and how it happens—this model is dead. To fully utilize talent and consistently align people around purpose, such that discretionary effort is brought to bear, requires a new style of leadership, one that is more selfless and compassionate. One that is built on trust. My term for this style of leadership is *generosity of spirit*.

In simple terms, the generous-spirited leader fundamentally believes in the power of each person to make a difference and has a genuine desire for people to flourish and be the best they can be. This leader sets out to create an environment in which people can perform fearlessly, where they can grow and develop. This style of leadership is not quick to judge. It involves deep listening and seeks to walk in the shoes of others. Generous-spirited leaders are visible and authentic. Because they care, they are kind and compassionate. They are also self-aware, understanding the impact they have on others. Such leaders are inclusive in their approach, striving for diversity in all its forms. Their essential humility means that they are continually challenging themselves, seeking out new ways to think about things and new lessons to learn.

At this point, two myths are worth exploring. Myth number one is that such leaders are "soft." Myth number two is that this style of leadership is something you are born with, that it is either inherently in you or it isn't.

Myth number one—that generous-spirited leaders are soft. Nothing could be further from the truth. This is the toughest, most courageous style of leadership there is. Its ingredients include clarity of purpose, setting high expectations, and holding people to account while consistently and regularly providing honest feedback. The generous-spirited leader does not resile from tough decisions. He or she will tackle them timeously, treating those affected with respect.

An exceptional leader and role model from the political sphere can best bring this concept to life—Nelson Mandela. After 27 years of imprisonment, and having suffered all his life from the

indignities, discrimination, and hatred embodied in apartheid, Mandela's first words upon his release from jail in February 1990 were of peace, democracy, and freedom for all. His voice was one of hope, his message the rebuilding of a nation, based on reconciliation and reconstruction. There were many around him, understandably both angry and bitter, who argued for a harsh approach, one involving retribution and immediate redistribution. Mandela stood his ground. He was unambiguous in his expectation of others, clear in his vision, and consistent in his messages. At the same time, he was renowned for his personal warmth, his care and respect for individuals, his taking time to acknowledge and thank. He made it his business to understand the perspectives and points of view of others, even of his enemies. He embraced reconciliation at the most personal of levels. And he delivered a new constitution, a new government, a new vision for South Africa, and a remarkable legacy with regard to truth and reconciliation.[1] This is generous-spirited leadership at its best. Tough and fair, tough and kind.

Myth number two—that this style of leadership is something you are born with. On the contrary, it is a leadership style that develops and matures with practice, and over time. It certainly starts with a basic respect for others, regardless of race, gender, sexual orientation, or any other distinguishing characteristic. But from this essential starting point, one can learn and grow. The critical enabling element is that of self-awareness, a preparedness to stand back and observe one's own behaviors and actions, to assess their impact on situations, positive and negative, and to learn from this assessment. Interestingly, in becoming more self-aware, one becomes more aware of others, too, and of the significance of context and environment. Leaders skilled in awareness tend also to be practiced in listening and in looking for cues, both verbal and nonverbal. The best courtesy and sign of respect a leader can pay to others is to be genuinely "in the moment" when engaging with them. Doing so requires time and focused attention, and it involves *seeing* people, fully seeing them. This approach encompasses a humility and centeredness that builds trust. Exceptional leaders observe themselves and learn from their experiences.

BEYOND THE BOUNDARIES OF TRADITIONAL BUSINESS

At the outset of this essay, I stated that leadership is hard; indeed, in today's challenging times it is becoming even harder. This is certainly true with respect to the issue I now discuss—the role of today's business leader in leading and

1 In 1996, Nelson Mandela established the Truth and Reconciliation Commission under the chairmanship of Bishop Desmond Tutu. The emphasis of the commission was to bring out the truth of apartheid's dark years and seek to provide some level of cleansing and closure for both victims and perpetrators.

championing change beyond traditional business boundaries. "The future of the world has become my business" is how exceptional business leaders are beginning to think about it. They have a thoughtful understanding of the major societal forces facing the world, and they are able, conceptually, to link these forces with the businesses they run. They reframe success for their enterprises to make it clear that being long-term, sustainable, and value-creating institutions for society is what matters most. They understand the inextricable link between investment and productivity, and that productivity dividends need to be spread and shared. They have made the shift from narrowly defending their corporations' interests to actively contributing to public debate. In this way, they are comfortable in the worlds of governments, of nongovernmental organizations, and of civic society generally. They have moved beyond rhetoric and avoid being glib or superficial. They look for opportunities to collaborate and partner with others. Innovation, design thinking, skills in problem solving, and business pragmatism are key elements they bring to the table in addressing global issues such as climate change, food and water security, future jobs, gender equality, and access to education.

Business leaders who take on these responsibilities know that they will encounter criticism and attack, sometimes deeply personal. Such is our world of growing intolerance and polarization, with the power of social media reinforcing existing biases. These forces are tough to deal with, and it is easier to retreat and keep one's head down. Increasingly, exceptional business leaders are required to be both courageous and resilient. Once on this path, it is important to keep going.

CONCLUSION

In 2019, Bretton Woods reaches its 75th anniversary. Its focus has consistently been on a strong and prosperous global economy to benefit all the world. Reflecting on its 75 years of history, there is indeed a lot to celebrate. But growing and strident nationalism, coupled with ardent protectionism, are making the challenge much harder. The speed and hyperconnectivity of our digital era add to these obstacles. The growing disparity between the haves and have-nots is of increasing concern, as is the tone-deafness of many of the so-called elites. If we are to preserve the Bretton Woods spirit—and preserve it we must—big business has a vital role to play. I argue that a new style of leadership is required. The role of business is much more than business. Be clear on purpose and align behind it, ensuring a culture that is ethical at its core. Build an environment of high trust and high accountability. Be generous-spirited and value diversity. And take on the difficult role of championing change beyond traditional business boundaries, bringing business skills and resources to bear. Stand up and be counted. Exceptional business leaders—we need you.

THE NEW GLOBAL AGENDA

Scale, Urgency, and the Future of the Multilateral Development Bank System

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The seven and a half decades since the launch of the Bretton Woods institutions have seen development progress on a scale, pace, and breadth unprecedented in human history. Such progress is a testimony to the spirit of internationalism, with the UN and the Bretton Woods institutions at its core, that was built in the aftermath of two world wars and a Great Depression. In the era of the Bretton Woods institutions, we have seen extraordinary achievement in the improvement of life expectancy, education, and income.[1] We have seen rapid and large decreases in global poverty as well as in global inequality in health and education. These fundamental advances have been interwoven with a set of profound changes in the structure of the world economy and society,

1 Nicholas Stern, "The Best of Centuries or the Worst of Centuries: Leadership, Governance and Cohesion in an Interdependent World" (Fulbright Legacy Lecture, Grantham Research Institute, London School of Economics, London, UK, June 4, 2018).

including a fundamental shift of the balance of economic activity toward the emerging markets and developing countries; increasing interdependence across regions and nations through means including trade, investment, finance, and the movement of people; fundamental technological change; and rapid population growth along with increasing life expectancy. Any discussion of the future of the multilateral development bank (MDB) system must be built on a recognition of these changes, the role of internationalism in their creation, the unique strengths of the MDBs, and the profound challenges that lie ahead, in large measure arising from the pressures created by past success.[2]

DEVELOPMENT PROGRESS WITH GROWING PRESSURES ON THE GLOBAL COMMONS

The progress achieved in poverty reduction and human development indicators over the past 75 years has been nothing short of astounding. The share of the world's population living on less than US$2/day has declined from around 75 percent in 1950 to an estimated 10 percent in 2015. In the health and demographics realm, world life expectancy has risen, from around 40 years in 1950 to around 70 today. Infant mortality (per 1,000 live births) has fallen from more than 100 in 1960 to around 30 today. In the education domain, in 1950 around 45 percent of the world's population was illiterate; today it is close to 15 percent. The gap between females and males has narrowed, with female literacy now around 83 percent. Most of these trends are due to the progress achieved in the developing world as a result of public action and investments as well as better policies supported by strong development cooperation in which the World Bank and subsequently the regional development banks have played an important role. Of course, there has been great variation across regions and countries, and there have been setbacks.[3] While Africa has seen real progress in many dimensions of well-being, growth in per capita income and other development indicators has improved more slowly.

These trends in human development have been accompanied by strong growth, although convergence in income per capita is a more recent phenomenon. In the first quarter of a century after the Second World War, world income per capita grew by around 3 percent per annum, driven largely by rich countries and reconstruction after

2 Nicholas Stern, "Sustainability and Internationalism: Driving Development in the 21st Century" (Policy Insight, Grantham Research Institute, London School of Economics, London, UK, 2019).

3 In particular, conflict around the world continues to pose serious challenges. Armed conflict between countries has decreased, but there has been a sustained rise in internal conflicts. See Marie Allanson, Erik Melander, and Lotta Themmnér, "Organized Violence, 1989–2016," *Journal of Peace Research* 54, no. 4 (2017): 574–87.

the war. For much of the 1970s and 1980s, growth sputtered as a result of the oil and debt crises. From the early 1990s to the 2007 financial crisis, per capita income growth picked up to 2 percent per annum, this time driven by the populous emerging-market countries, especially China. The world economy has finally started to recover from the financial crisis, with growth still driven largely by emerging markets. Per capita income growth is likely to remain in the 2 percent range for a while, alongside declining population growth. Overall, world income per capita has grown by a factor of 4 since 1950 as population has roughly trebled, so that total output has gone up by a factor of around 12.

Inequality between countries has fallen as a result of the more rapid growth of the large populous emerging markets; however, there has been an increase in inequality within many countries, particularly in terms of the shares of income and wealth going to the top 1 percent.[4] In addition, technological and structural change together with globalization have led to dislocations in sectors and geographic regions in many rich countries that have often been badly managed, leaving many marginalized.

The combination of economic and population growth has put enormous pressures on the global commons and ecosystems. We have seen severe damage to the environment across a range of dimensions—the atmosphere, biodiversity, forests and landscapes, oceans and freshwater resources. The strong reliance on the burning of fossil fuels has been particularly damaging. Annual emissions of carbon dioxide from the energy sector alone increased from 11 gigatons (Gt) in 1960 to 35 Gt in 2016. As a result, the concentrations of carbon dioxide in the atmosphere have increased from around 315 parts per million (ppm) in 1960 to over 400 ppm today, a level not seen for 3 million or more years.[5] These emissions and resulting concentrations have caused average global surface temperatures to increase by 1°C above preindustrial levels, taking us to the edge of the experience of the benign Holocene period of the last 10,000 years, during which human civilization has grown and thrived, introducing such fundamentals as grain crops, settled agriculture, and towns.

The rise of emissions has led to growing air pollution and degradation of air quality. Air pollution is a major cause today of illnesses and death,[6] and 97

4 Facundo Alvaredo, Lucas Chancel, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman, "The World Inequality Report" (Paris, Harvard University Press, 2018).

5 Gavin L. Foster, Dana L. Royer, and Daniel J. Lunt, "Future Climate Forcing Potentially without Precedent in the Last 420 Million Years," *Nature Communications* 8 (2017): 14845.

6 Latest estimates are around 9 million per year (Jos Lelieveld, Klaus Klingmüller, Andrea Pozzer, Ulrich Pöschl, Mohammed Fnais, Andreas Daiber, and Thomas Münzel, "Cardiovascular Disease Burden from Ambient Air Pollution in Europe Reassessed Using Novel Hazard Ratio Functions," *European Heart Journal* ehz135, February 2019).

percent of cities in low- and middle-income countries do not meet World Health Organization guidelines on air quality. At the same time that we are emitting greenhouse gases and polluting the air, we are degrading the natural ecosystems that create the environmental conditions for development. And these pressures are being made worse by climate change. Freshwater resources are polluted and under stress in many parts of the developing world. Oceans absorb and store around a quarter of the annual greenhouse emissions, but this absorption is leading to increased acidity and lower oxygen concentrations.[7] Combined with overexploitation of fisheries and increasing levels of plastics and other pollution, the ecosystems of the oceans are under severe stress.[8] Landscapes and forests, which absorb about 25 percent of annual greenhouse emissions, are also under intense and sustained pressure from agriculture, harvesting, and urbanization. Forest cover has declined dramatically over the past century, with the rate of tropical tree cover loss reaching a high in 2016, amplifying the increase in greenhouse gas emissions and threats to the climate and weather systems of the world. Around 75 percent of land is now assessed to be degraded, and biodiversity, which is central to the functioning of ecosystems, has been hit particularly hard. The World Wildlife Fund estimates that 58,000 species are lost every year; vertebrate populations have declined by 60 percent since the 1970s and insects are also under severe stress.[9]

THE NEW GLOBAL AGENDA: SCALE, URGENCY, AND OPPORTUNITY FOR A NEW GROWTH PATH

The progress achieved on development over the past 75 years provides a good platform for further progress, but our current paths of growth and development are clearly not sustainable.[10] The discussions that led us to the milestone agreements of 2015 recognized the need for greater ambition and radical change. The new global agenda was created and agreed upon by more than

7 Bärbel Hönisch, Andy Ridgwell, Daniela N. Schmidt, Ellen Thomas, Samantha J. Gibbs, Appy Sluijs, Richard Zeebe, Lee Kump, Rowan C. Martindale, Sarah E. Greene, Wolfgang Kiessling, Justin Ries, James C. Zachos, Dana L. Royer, Stephen Barker, Thomas M. Marchitto Jr., Ryan Moyer, Carles Pelejero, Patrizia Ziveri, Gavin L. Foster, and Branwen Williams, "The Geological Record of Ocean Acidification," *Science* 335, no. 6072 (2012): 1058–1063.

8 A.J. Jamieson, L.S.R. Brooks, W.D.K. Reid, S.B. Piertney, B.E. Narayanaswamy, and T.D. Linley, "Microplastics and Synthetic Particles Ingested by Deep-Sea Amphipods in Six of the Deepest Marine Ecosystems on Earth," *Royal Society Open Science* 6, no. 2 (2019): 180667.

9 Monique Grooten and R.E.A. Almond, eds., "Living Planet Report 2018: Aiming Higher" (Gland, Switzerland: World Wildlife Fund, 2018), 7, https://www.wwf.org.uk/sites/default/files/2018-10/wwfintl_livingplanet_full.pdf.

10 Sustainability means that future generations have opportunities at least as good as the current one, assuming they behave similarly to those who went before.

190 countries, in contrast to Bretton Woods, which was pre-decolonization and included just 44 countries around the table, with one dominant power. The new global agenda includes at its core the Sustainable Development Goals (SDGs), agreed to at the UN in September 2015; the Addis Ababa Action Agenda of the Third International Conference on Financing for Development, agreed to in July 2015; and the UN Framework Convention on Climate Change agreement, reached at the 21st Conference of the Parties (COP21) in Paris in December 2015. The SDGs are more ambitious, comprehensive, universal, and forward-looking than the Millennium Development Goals that had guided poverty reduction efforts and development cooperation since 2000. They recognize the central importance of sustainability. They define our shared understanding of the key dimensions of development. And in constructing the Paris climate agreement at COP21, the international community recognized the enormity of the possible dangers and the necessity for urgent action well before the deepest impacts of the potential crisis are upon us.

The new global agenda was and is based on the understanding that eliminating extreme poverty and laying the foundation for sustainable future prosperity worldwide go hand in hand with effectively tackling climate change. As the pioneering 2014 New Climate Economy report, "Better Growth, Better Climate," had underscored,[11] there is no trade-off between these objectives: the only long-term growth path that is sustainable is a low-carbon, climate-resilient one. The new global agenda has also highlighted the central role of sustainable infrastructure.[12] Raising the quantity and quality of sustainable infrastructure is crucial for sustainable and inclusive growth, reduction in poverty and attainment of the SDGs, and meeting the ambitions of the Paris climate agreement to limit global warming to less than 2°C and build resilience in the face of climate change. Two-thirds of those investments will take place in emerging and developing economies, and all the infrastructure we build will need to be low carbon and climate resilient. We must be clear that stabilization of temperature requires stabilization of concentrations, which in turn requires net zero emissions. The earlier we go "net zero," the lower the temperature at which we stabilize. For the Paris target of "well below" 2°C, that means within 50 years.

11 New Climate Economy, "Better Growth, Better Climate" (New Climate Economy, Washington, DC, 2014).

12 Amar Bhattacharya, Joshua P. Meltzer, Jeremy Oppenheim, Zia Qureshi, and Nicholas Stern, "Delivering on Sustainable Infrastructure for Better Development and Better Climate" (Global Economy and Development at Brookings, Brookings Institution, Washington, DC, 2016); New Climate Economy, "The Sustainable Infrastructure Imperative: Financing for Better Growth and Development" (New Climate Economy, Washington, DC, 2016).

The scale and urgency of delivering on the development goals while ensuring sustainability cannot be overstated. Over the next 15 years, the stock of infrastructure will need to more than double. The world economy will likely double over the next 20 years, and the urban population will nearly double over the next 30 years or so. At the same time, the world will need to cut carbon emissions by 35 percent by 2030 to have a reasonable chance of limiting global warming to no more than 2°C. With the scale of investment that will have to be made, we cannot afford to lock in polluting technologies and inefficient capital. The window for making the right choices is uncomfortably narrow, not only because of a shrinking carbon budget but because remedial measures will become progressively costlier.

At the same time, we have in our hands an immense opportunity to embark on a path of strong, sustainable, and inclusive growth that could both drive and be driven by the transition to a zero-carbon, climate-resilient economy.[13] Advances in technology, especially in the energy sector but also in sustainable mobility, city and building design, and agriculture, have been much faster than anticipated. And all of this on the back of policies that have been less than strong and often inconsistent. Economic opportunities of the new growth path also stem from preserving essential natural capital and from reaping the full health benefits of cleaner air and a safer climate, including containing pandemic diseases. The benefits of investing in sustainable infrastructure are immense and include cities where we can move, breathe, and be productive; resilient power and water systems; housing that can withstand increasingly frequent and severe climate extremes; and ecosystems that are productive, robust, and resilient. The discourse has consequently shifted from the costs of action to ways to exploit emerging opportunities in this new economy based on a changing understanding of the processes of growth.

THE ROLE AND FUTURE OF THE MDB SYSTEM

MDBs and other development finance institutions have a central role to play in supporting the new global agenda. Their mandate, instruments, and shareholding structure enable them to play a unique and crucial role that other financial structures cannot. They can bolster government capacity to accelerate policy reforms and institutional development; they can support scaling up of projects and programs through the power of example and facilitation of platforms; and critically, they can catalyze private investment and finance through reducing, managing, and sharing risk. These three multipliers give such institutions their special comparative strengths in

13 New Climate Economy, "Unlocking the Inclusive Growth Story of the 21st Century: Accelerating Climate Action in Urgent Times" (New Climate Economy, Washington, DC, 2018), https://newclimateeconomy.report/2018/.

scaling up and enhancing the quality of investments, especially in human development and sustainable infrastructure.

In order for them to play a role commensurate with the scale and urgency of development challenges, these institutions will need to transform themselves, learning from the lessons of past experience. They must demonstrate clarity and consistency around a sense of purpose; constructive country interactions around policy; support for good governance; recognition of the importance and complementarity of investment in all forms of capital—human, physical and natural, and social; a high quality of skills and analysis; support for good long-term platforms for action at the country level; utilization of a broad range of financial instruments; bigger "multipliers" across the board and stronger partnerships, particularly with the private sector; and greater coherence as a system. And they must avoid the adoption of narrow, rigid, or fundamentalist approaches, all too visible in the 1990s.

These lessons and strengths imply that the MDBs should work on the frontiers of policy and investments, where other banks find it more difficult to work. They should build partnerships around policy and institutions, including long-term platforms around infrastructure, health, and education. They should use their strengths to support both innovation and going to scale. MDBs must move on the frontiers and move as the frontiers move.

The report of the G20 Eminent Persons Group on Global Financial Governance (EPG) made the case that the scope and effectiveness of MDB activities must evolve with the changing world and the adoption of the global agenda.[14] Further, the MDBs will need to work more effectively together as a system. Strategic action as a group must be based on shared objectives and key operating principles, which themselves follow from the strengths and mandates of the MDBs. The starting point must be the ability of MDBs to work effectively as a system on the ground to support the development strategies of countries and the delivery of global public goods. The answer is to work with the other MDBs on the basis of platforms created by the countries, rather than the present fragmentary approach and piecemeal collaboration. Country platforms imply shared objectives; joint assessment and support for policy and institutional reforms; common structures for project selection and preparation; and joint financing structures, including those for mitigating risk and crowding in private capital. Country platforms need to be backed by effective cooperation and platforms at the regional and global levels, including better

14 G20 Eminent Persons Group on Global Financial Governance, *Making the Global Financial System Work for All* (n.p.: G20 EPG, 2018). Also see Amar Bhattacharya, Homi Kharas, Mark Plant, and Annalisa Prizzon, "The New Global Agenda and the Future of the Multilateral Development Bank System" (Brookings Institution, Washington, DC, 2018).

utilization of the comparative strengths of individual MDBs.

The global agenda requires action in all countries. The allocation of effort and resources between countries in the MDB system is not a zero-sum game. The future of Africa and its climate and environment depends in large measure on the nature of infrastructure investment in the middle-income countries (MICs) in the next two decades. The good returns that MDBs can get on financing in MICs can be used in poorer countries. Some of the lessons learned from work in the MICs carry over into poorer countries. Good investments in MICs would allow room for taking more risk in poorer countries. And good connections between MICs and poorer countries can help drive development for both.

Shareholder alignment and improved governance is essential for the effective functioning of the system and individual institutions. Shareholders need to have a shared understanding of the value proposition of the MDBs across all income groups and in tackling global challenges. They must better utilize the unique financial strengths of the MDB system but also plan for a major expansion of their financial capacity, given the urgency and scale of the development agenda and the threats to the global commons. There are four priorities for governance reform: First, there is a need for strong but strategic involvement of institutional boards. Strategic boards with high-level participation should meet less often, bringing into question the need for the heavy costs of residency. Second, a move to merit-based leadership selection is fundamental for the effectiveness and legitimacy of the system. Third, shareholding structures must evolve to reflect changing economic realities and foster strong multilateralism. Finally, as the EPG report suggested, there is a need to put in place a mechanism for governance and accountability of the overall system, with a role for the G20 and the governance structures of the international financial institutions.

The immense challenges of sustainability that the world now faces require international action, with the MDBs at the core. In the last 75 years we have seen how effective that combination can be. The challenges have changed fundamentally, largely as a result of past successes, and the MDBs can make a contribution at the necessary scale and urgency only if they too change fundamentally. We have described how they can. We look to political leadership to decide whether they will.

A NEW BRETTON WOODS VISION FOR A GLOBAL GREEN NEW DEAL

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In 1934, US President Franklin Roosevelt launched a visionary New Deal to lift the United States economy out of the Great Depression and revive it from damage caused by the Dust Bowl, huge unemployment, and idle excess capacity.[1] Ten years later, America extended his vision through the Bretton Woods Conference to revive a Europe and developing world devastated by war. The conference created not only a new postwar international monetary and financial order but also a framework for world governance through the United Nations and a multilateral trade and investment order.

Seventy-five years later, the world is facing another existential challenge. Climate change, disruptive technology, global migration, deleterious financialization, and geopolitical rivalry are 21st-century additions to the 1930s problems of massive unemployment, social inequalities, state failure, and populist sentiments poised at open and violent conflict with each other.

The Bretton Woods institutions (BWIs), comprising an International Monetary Fund to help finance balance-of-payments deficits under a fixed exchange regime and a World Bank to help reconstruct Europe and later provide soft aid and long-term loans to the developing countries, have survived to the present day. Through the long lens of history, the Bretton Woods

1 I am grateful to Douglass Carmichael for very stimulating insights, comments, and suggestions. All opinions, errors, and omissions are personal to the author.

Conference marked the passing of the reins of global power from Great Britain to the United States.[2] The Bretton Woods system initially functioned well because the United States funded the postwar dollar shortage through generous aid and investment outflows, with American companies beginning to globalize trade and investments, leading to widespread use of the dollar. But after the United States was forced to delink the dollar from gold in 1971, a new era of floating exchange rates created the second phase of Bretton Woods, which has lasted to the present day.

José Ocampo called the structure under the latter period a *nonsystem* because although the world enjoyed fairly rapid growth, especially in the emerging markets, that growth was punctuated by periodic debt crises, notably the Latin American debt crisis in the 1980s, the Asian financial crisis in 1997/98, and the US subprime lending crisis of 2007/08 and European debt crisis of 2010–2012, the latter two collectively called the global financial crisis (GFC).[3]

Nevertheless, despite all the flaws of the nonsystem, the BWIs have, on balance, been positive for globalization because together they provide scarce global public goods. In essence, they help low-income countries in adjustment, giving broadly sound policy advice, and help member countries understand and adjust to their growing role in the global financial order and adjustments.[4]

POST-GFC IMPLICATIONS

The GFC and its aftermath marked a profound change in the global economic and financial order, because the crisis affected the United States and Europe most, slowing their growth by a third, while the rest of the world powered ahead. The immediate response was quantitative easing (QE) by the global central banks, aided by the famous stimulus package of 4 trillion renminbi that morphed into a massive credit boost in China.

The BWIs were given only a secondary role during the handling of the GFC due to their inadequate capital and resources relative to the size of the rescue required. Instead, reserve-currency central banks took center stage. Central bank swaps by the US Federal Reserve, the European Central Bank, the Bank of England, the Bank of Japan, and the People's Bank of China had more potency than the BWIs to deal with the financial crisis. Furthermore, global recession was avoided by massive QE,

2 Benn Steil, *The Battle of Bretton Woods: John Maynard Keynes, Harry Dexter White, and the Making of a New World Order* (Princeton, NJ: Princeton University Press, 2013).

3 José Antonio Ocampo, "Reforming the Global Monetary Non-system" (UNU-WIDER Working Paper 2015/146, UN University World Institute for Development Economics, Helsinki, Finland, 2015).

4 Edwin M. Truman, "International Monetary Fund Reform: An Overview of the Issues" (Presentation at Peterson Institute for International Economics conference on IMF reform, Washington, DC, September 23, 2005).

creating historically low interest rates, asset bubbles, and many other unintended effects, such as social inequalities and political backlashes.[5] Still, the BWIs diligently handled the aftereffects of the crises in terms of support lending, financial surveillance (through missions of the World Bank's Financial Sector Assessment Program), policy advice, and analytical support to the G20.[6]

Two former Bank for International Settlements colleagues lamented the failures of the G7 model of the post-GFC international era as follows: "The global financial system remains fragile. The world economy struggles to recover. Climate change accelerates. Digitization and globalization depress wages. Income equality is on the rise. Geopolitical turbulences are spreading. Lies are presented as truths. Truth remains unspoken. And people are angry."[7] The authors identified four "ticking time bombs": the growing debt and demography risk is grossly mispriced, the growing war risk is unpriced, the climate change risk is underpriced, and the unemployment risk associated with lower growth and the digital revolution is largely ignored.[8]

Of these, climate change is the foremost existential threat, with geopolitical tensions and war as second, worsened by rising population counts, migration, and aging, with very few policy options because of a massive debt overhang. All these issues compound each other in an existential "race of our lives" threat.[9] By the end of the 21st century, world population will peak at around 11 billion, with massive aging and declining populations in the rich countries, coupled with large youth unemployment in Africa and emerging markets, leading to huge migration pressures. Global emissions will have to be cut by over 40 percent in order to have any chance of meeting carbon neutrality by 2050 and thereby hitting the Paris target of keeping warming to less than 2°C.[10] Failing that, there will be more food and water shortages, pandemics, failed states, migration, war, and conflicts. In short, the world will have to collectively invest

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5 Andrew Sheng, "Central Banks, National Balance Sheets and Global Balance," in *The Changing Fortunes of Central Banking*, edited by Philipp Hartmann, Haizhou Huang, and Dirk Schoenmaker (Cambridge, UK: Cambridge University Press, 2018), 341–58.

6 Andrew Sheng, "A Global System Transformed by Systemic Crises" (10th Anniversary Financial Crisis Essay, Reinventing Bretton Woods Committee, New York, NY, 2017).

7 Hervé Hannoun and Peter Dittus, "Revolution Required: Ticking Time Bombs of the G7 Model" (Unpublished paper, Bank for International Settlements, Basel, Switzerland, 2017), 1, https://www.ssrn.com/abstract=3060168.

8 Hannoun and Dittus, "Revolution Required," 83.

9 Jeremy Grantham, "Race of Our Lives" (Speech to Morningstar Investment Conference, Chicago, IL, June 11–13, 2018), https://www.morningstar.com/videos/870606/watch-jeremy-granthams-race-of-our-lives-speech.html.

10 Intergovernmental Panel on Climate Change (IPCC), "Global Warming of 1.5°C: Summary for Policymakers" (United Nations, Geneva, Switzerland, 2018), https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_version_stand_alone_LR.pdf.

hugely in clean energy and infrastructure to avoid the worst effects of climate change and address social inequalities and the present escalation of conflict, leading to nuclear war.

The world urgently needs a Global Green New Deal (GGND). For better or worse, the BWIs are best placed to lead the efforts to design and coordinate the implementation of a GGND. The broad parameters of such a deal may involve the following.

Roughly US$2.4 trillion, or 2.5 percent of world GDP, would have to be invested annually in clean energy through 2035, and in addition coal-fired power would have to be cut to nothing by 2050, to avoid catastrophic damage from climate change.[11] These numbers exclude the costs of social adjustments for people to adapt to the new infrastructure, training of people displaced by technology and climate disasters, creation of new jobs in high-unemployment areas, and so on. Africa and the Middle East would be most affected in the near future.

The bad news for climate change financing is that between 2007 and 2016, advanced-country debt has already risen 39 percentage points, to 274 percent of GDP, facing slowing growth and productivity. The US Congressional Budget Office has already warned that even under optimistic estimates of exceptionally low interest rates, the US federal debt will rise to an estimated 152 percent of GDP by 2048.[12] In addition, the United States may have US$10 trillion in unfunded Social Security liabilities, whereas the unfunded pension liabilities in 20 Organisation for Economic Co-operation and Development countries may be as large as 190 percent of GDP.[13] In short, the fiscal space to deal with climate change appears to be limited.

Any redesign of the Bretton Woods framework going forward must therefore contend with a complex, messy future covering multiple alternative scenarios that include, at best, muddling through to global war, climate disasters, and state failures. In other words, all crises have political origins and will need political solutions. Facing the current one demands a coherent, unified vision with coordinated resource management that encourages local initiatives to deal with problem resolution at the grassroots level.

Getting national Green New Deals is tough enough. Is achieving a GGND mission impossible?

We know that if global public goods are not provided to incentivize behavioral change, temperatures will rise, and food and water shortages from loss of topsoil, flooding, salination, and so on will increase global insecurity, leading to

11 IPCC, "Global Warming of 1.5°C."

12 US Congressional Budget Office, "The 2018 Long-Term Budget Outlook" (CBO, Washington, DC, June 2018), www.cbo.gov/publication/53919.

13 Hannoun and Dittus, "Revolution Required."

war and failed states. Even if sufficient resources are found to make a difference in keeping the temperature rise below 2°C, there will be technology-induced disruption in jobs, higher costs of green living, and massive costs for health care and for education of the rising young in Africa and emerging markets, along with escalating aging costs for the rich economies. These challenges will demand behavioral changes in individuals, civil society, corporations, and governments that put the ethics and value of collective human and natural survival above individual interests.

Present policy makers can no longer treat these threats as "bumps in road" but must approach them as existential challenges that demand new paradigms and modi operandi.

A NEW PARADIGM ON THE HORIZON

To put it simply, we can no longer use the reductionist neoclassical economic paradigm, because the invisible hand of the market cannot deal with climate change, nor the inequities of war and disruptive technology. Rational *homo economicus* has morphed into angry *homo politicus*.

The neoclassical blindness arose because its framework was founded on the classical mathematics and physics of Descartes and Newton. By and large, these models excluded the revolutionary concepts and tools of modern physics that originated with Einstein's relativity theories and quantum mechanics, which have been successfully adopted in biology, neuroscience, information theory, cryptography, international relations, politics, and computing. A quantum paradigm of finance and the economy is slowly emerging, and its nonlinear, complex nature may help the design of a future global economy and financial architecture.[14]

The good news is that in fighting the GFC, central bankers have discovered that QE can generate resources that can be utilized to lower interest rates and stop the real economy from deteriorating due to contagion. Indeed, the top five reserve-currency central banks more than doubled their balance sheets, from US$6 trillion in 2008 to US$20 trillion in 2019, with hardly any impact on inflation.[15] This US$14 trillion injection of liquidity lowered interest rates and created asset bubbles as central banks bought financial assets ranging from subprime mortgages and exchange-traded funds in equity indexes to corporate and sovereign bonds.

Unfortunately, the GFC was a "wasted crisis" because these resources should have been used to finance long-term projects that would have dealt with climate change, energy conservation, green urbanization, forest and marine reef

14 David Orrell, *Quantum Economics: The New Science of Money* (London: Iconbooks, 2018).

15 Edward Yardeni and Mali Quintana, "Central Bank Balance Sheets" (Yardeni Research Inc., New York, NY, 2019), https://www.yardeni.com/pub/peacockfedecbassets.pdf.

conservation, and the like. In a clear case of market failure, even with long-term interest rates at near-zero levels, it was difficult to finance such projects.

Although central banks have talked about green finance, they have shied away from directly funding green projects on the pretext that to do so would compromise the banks' independence. But because governments have also been shy about increasing their debt levels, critically important infrastructure projects have remained unfunded, meaning that any central bank resources that were generated were captured for short-term speculation rather than long-term investment purposes. This was not just a market failure but a failure of policy imagination.

QE and the digitization of the economy have revealed that for every asset, there are virtual liabilities that central banks and cyber experts can create at *near-zero marginal cost*. Indeed, monetary policy entails central banks' manipulating their balance sheets (mostly creating virtual liabilities that are accepted as money) to influence the real economy. What central bankers have ignored is that their QE was gamed to enrich those smart enough to borrow and generate asset inflation at the expense of the ignorant 90 percent of the population. Hence, the ethical basis of QE requires a new form of governance that makes sure such resources are allocated for dealing with the existential threats of human inequality, natural imbalance, and unsustainable growth.

The quantum nature of the knowledge economy is that those who control information have power through information generation, misinformation, or disinformation.[16] Financial assets and virtual liabilities have quantum characteristics of entanglement with each other that are not yet fully understood. But those who are allowed to create cybercurrencies or financial derivatives have been able to exploit information asymmetries to enjoy inflated profits while adding fragility to the system as a whole.

All of these developments suggest that using a new "quantum" imagination, the Bretton Woods framework can be reengineered to enable national central banks to fund global public goods through investing in Bretton Woods–created "global green bonds" and other funding instruments that can be designed to ensure accountability for delivery of green output. In other words, instead of creating a global central bank, it might be possible to create a transparent fintech platform that would enable national governments, corporations, and civil bodies to bid on funding green projects, with proper due diligence on funds utilization, accountability, and ethical considerations.

The GGND therefore would be a global initiative to use global excess capacity to tackle existential climate change threats. The old monetary system

16 Orrell, *Quantum Economics*.

was incomplete because it comprised partial national policies that could not cope with systemwide, global issues. As long as there is global excess capacity, such creation of "green QE" will not lead to inflation. National governments and central banks can also place limits on how much they wish to invest in such global green bonds, which can be bought openly in the market by private funds. As we have learned from experience, inflation in food prices has the most impact on consumer price indexes. For example, in 2007, rice prices rose sharply when rice production was cut due to drought in Australia, a major rice producer. In other words, precisely because the geopolitical realities will not allow a global central bank or fiscal authority, we could still use lessons learned from fintech to create a "virtual" global monetary policy whereby global excess resources are allocated to deal with climate change, without sparking inflation.

What is lacking is the political will to collectively empower the BWIs to undertake such an important task for the global public good, not unlike what happened with the Marshall Plan, but this time systemically for global climate change challenges. In short, the BWIs can intermediate short-term central bank liquidity for long-term global public goods.

ARE THE BWIS SUITED TO UNDERTAKE THIS TASK?

What remains to answer is whether the BWIs are suited to handle such a formidable task. One plausible answer is that the incumbent institutions already have a global footprint with a governance structure (however flawed) that represents member interests. Even though it is not easy for the leading powers to agree to deal with what Mancur Olson called a "collective action trap,"[17] there is little doubt, even for the most ardent climate denier, that the evidence points to climate warming as a clear and present danger. After all, the last 10 years were 10 of the hottest 11 years in history and contained the 3 hottest years ever.[18]

Pessimists will say that, politically, it may be impossible to get global agreement under the current contentious geopolitical conditions. On the other hand, Elinor Olstrom demonstrated how common resources, such as forests, fisheries, energy, and farmland, can be managed successfully by users rather than governments or private companies.[19] Swedish schoolgirl Greta Thunberg

17 Mancur Olson, *Power and Prosperity* (New York, NY: Basic Books, 2000).

18 Grantham, "Race of Our Lives."

19 Elinor Olstrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge, UK: Cambridge University Press, 1990).

vividly shows that the young are already demanding action on climate change.[20]

As the British Academy economists admitted to Queen Elizabeth in 2009, the experts failed to see the global crisis coming because of "a lack of collective imagination."[21] Political economists must find imaginative ways to engage the politics of global management of climate change. Not only will the design of a GGND require imagination, but its delivery will necessitate action with energy, force, passion, and urgency.

Failing these tasks, we will have broken BWIs in a broken world.

20 "Greta Thunberg's Climate Crusade," *The Week,* May 4, 2019, https://theweek.com/articles/839011/greta-thunbergs-climate-crusade.

21 British Academy, "British Academy to Her Majesty The Queen, July 22, 2009" (Letter from Imperial College London), http://wwwf.imperial.ac.uk/~bin06/M3A22/queen-lse.pdf (accessed May 7, 2019).

BEYOND DEVELOPMENT

Rethinking Aid in an Era of Fragile States

DAVID MILIBAND

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When we say "Bretton Woods," we are talking about a set of agreements, and then institutions, established with the aim of promoting effective economic governance of an interdependent world. But we also mean more than that. Bretton Woods is part of a wider system, set up after the Second World War to make the phrase "never again" mean something. Never again the failed institution building after the First World War; never again the exclusion of the vanquished from postwar reconstruction; never again the failure to protect the rights of people, not just the sovereignty of states.

The spirit of Bretton Woods is about more than an economic legacy. It represents important aspects of a world view, born in the depths of appalling war, fashioned in the early days of fragile peace, of *homo sapiens,* not just *homo economicus.*

The right place to start is the 1941 Atlantic Charter, signed by Winston Churchill and Franklin Roosevelt in Newfoundland before America joined the Second World War, which focused not on winning the war but on shaping the peace. Former German Foreign Minister Joschka Fischer called it the "birth certificate of the West." Bretton Woods was in various ways the child of the Atlantic Charter.

Three commitments underpinned the Atlantic Charter's animating idea that global cooperation had to be the product of the defeat of fascism: first, the commitment to rights for individuals; second, international responsibility for common problems, including the sharing of sovereignty; third, institutional creativity and responsibility to facilitate interstate cooperation. These notions that underpin the postwar order have been challenged externally throughout

their history. They have sometimes been in tension. They have been honored in the breach, not just the observance. But today there is a new problem: they are under siege in the very countries that first promulgated the charter. The referendum decision that Britain should withdraw from the EU was a direct rebuff to the lessons learned after 1945. Meanwhile, the Trump Administration provides a counterpoint every week to the idea of a global community to which the charter aspired.

INTERDEPENDENCE AND INTERNATIONAL COOPERATION

The irony is that the world is so much more interdependent today than in 1945 and needs international cooperation so much more. Domestic policy today is so much more dependent on foreign policy. Public policy needs so much more global cooperation, not less. The legacy of Bretton Woods—its ideals and its insights—is more relevant than ever. It speaks to the commitment to rigorous idealism in international affairs; to the alignment of economics and politics in successful public policy; to the essential role of international action in serving national interest, contrary to the siren calls of nationalism and nativism; and to the requirement for statesmanship to distinguish vision from illusion, what I call the difference between knowing your own mind and defining your own reality.

Many changes in the last 75 years are discussed in this volume. The focus of this essay is basic to the effectiveness of the international order, and its message is fundamentally changed from that of the immediate postwar era. It concerns conflict and, more particularly, its consequences.

In 1945, the world was all too used to the problem of interstate conflict. Today, there are tensions between Saudi Arabia and Iran, between India and Pakistan, between the United States and China. There is interstate competition. But interstate war is, for the moment, far less of a problem than intrastate warfare. It is intrastate warfare that poses the greatest threat to global security. It is intrastate warfare that is generating massive human misery, not least in the displacement of record numbers of people from their homes as a result of conflict, persecution, or disaster (68.5 million people at the time of writing, made up of 40 million internally displaced, 25 million refugees who have crossed borders, and 3.5 million asylum seekers, also having left their own home countries).[1]

More than 40 percent of the extremely poor now live in conflict-affected or fragile states. This number is

1 UNHCR, "Figures at a Glance" (UNHCR, Geneva, Switzerland, June 19, 2018), https://www.unhcr.org/figures-at-a-glance.html.

projected to rise to two-thirds by 2030.[2] Climate change will only exacerbate these trends, with rising temperatures and more extreme weather projected to displace 140 million people by mid-century, mostly in already fragile and low-income communities.[3] The new nexus of conflict and fragility on the one hand and extreme poverty and political tension on the other exposes a bug, not a feature, of the system for treating these problems: the idea that "humanitarian" help is short-term and emergency in nature, while "development" work to tackle poverty is structural and long-term in nature, is broken by the new geography of poverty.

Ultimately, the only "solution" to this problem is to tackle the crisis of peacemaking at its source—to invest international diplomatic, economic, and military resources to prevent crisis if possible and put out fires where necessary. But so far there is little sign that this type of investment is happening. Since the end of the Cold War the average number of ongoing civil wars is 10 times greater than in the century prior, and the length of civil wars in the second half of the 20th century was three times greater than in the first half. The crisis of diplomacy has promoted some radical thinking—for example, French proposals to suspend the veto in the UN Security Council in cases of mass atrocity—but not enough to stanch the bloodshed.

Pending radical changes in the global commitment to peacemaking, more incremental efforts guided by the animating principles of Bretton Woods are needed. In the treatment of the consequences of war, there is urgent need for reform. I focus here on four examples.

THE REFUGEE CRISIS

First, the refugee crisis requires that the global public good being delivered by refugee-hosting states such as Bangladesh, Colombia, and Jordan be properly recognized. A study by the Center for Global Development of the future of the multilateral system concluded that the provision of global public goods was the central development challenge of today:

> Growing interconnectedness through international trade, migration, and travel has increased the number of critical common challenges faced by the global community. Climate change, cross-border epidemics, security risks, and financial crises pose a mounting threat to stability and living standards everywhere. While they affect all

2 World Bank Group Fragility Forum, "Fragility, Conflict & Violence" (World Bank Group, Washington, DC, April 2, 2019), https://www.worldbank.org/en/topic/fragilityconflictviolence/overview.

3 Kanta Kumari Rigaud et al., "Groundswell – Preparing for Internal Climate Migration" (World Bank Group, Washington, DC, March 19, 2018), https://openknowledge.worldbank.org/handle/10986/29461.

> of us, those living in the poorest nations—with little or no personal savings, no social safety nets or government emergency assistance programs to fall back on—are the most vulnerable. The provision of global public goods is a prerequisite for sustained future progress both in rich and poor countries and is vital for reduction of poverty and inequality across and within countries.[4]

The refugee crisis squarely fits into this definition.

Contrary to the claims of too many politicians, the vast majority of refugees are not in high-income Western countries. Instead, the top 10 refugee-hosting states account for just 2.5 percent of global income. Despite a GDP per capita of just US$1,500, Bangladesh hosts more than 900,000 displaced Rohingya. Uganda, with the world's 102nd-largest economy, hosts 1.4 million refugees—11 times the number hosted by the UK, the world's 5th-largest economy.[5] This generosity does not come free for host countries. USAID (the United States Agency for International Development) estimated that the large influx of Syrian refugees hosted by Jordan cost the country 2.4 percent of its GDP in 2014 due to increased government expenditures to support the expansion of public services—a cost that is compounded by legal restrictions on refugees' access to the labor market, preventing them from becoming self-sufficient.[6]

These developing nations hosting 84 percent of the world's refugees are providing a global public good, and they should be supported by the international community accordingly. This situation was not anticipated at the founding of Bretton Woods, when only European refugees had status in international law (courtesy of the 1951 Refugee Convention, which was extended globally only in 1967). Refugee host countries need a new deal, in which greater macroeconomic support is offered for integrating refugees into economic and social life. One option is to establish a financial facility for third countries as an incentive for them to take refugees. The World Bank's IDA18 regional sub-window for refugees and host communities, which opens up US$2 billion in grants and loans to low-income refugee-hosting countries, and its financing facility for middle-income refugee-hosting countries, which had received pledges totaling US$512 million by the end

4 Nancy Birdsall and Anna Diofasi, "Global Public Goods for Development: How Much and What For" (Center for Global Development, Washington, DC, 2015), 2, https://www.cgdev.org/sites/default/files/CGD-Note-Birdsall-Diofasi-Global-Public-Goods-How-Much.pdf.

5 UNHCR, "Global Trends: Forced Displacement in 2017" (UNHCR, Geneva, Switzerland, June 25, 2018), 3, https://www.unhcr.org/5b27be547.pdf.

6 Razan Nasser and Steven Symansky, "The Fiscal Impact of the Syrian Refugee Crisis on Jordan" (Prepared by DAI for US Agency for International Development, Washington, DC, January 2014).

of 2017, are both important steps. But more can be done, including work in conjunction with regional financial institutions such as the African Development Bank, Asian Development Bank, and others that have so far been minimally engaged.

Another idea would be to create a self-sustaining financial facility that blends public and private finance to shoulder the up-front costs of resettlement and incentivize countries to open additional slots for refugees. Once refugees become economic net contributors, this facility would be replenished through a part of the taxes they generate. Ultimately, creating a win-win situation for refugees and the countries hosting them requires that the international community step up with innovative and longer-term financing options that are fit for today's trends of displacement, while host countries shift their policies to enable refugees to integrate into local communities and contribute to local economies. The fear that such policies will encourage them to stay undoubtedly weighs on the mind of host governments, but ironically, economic self-sufficiency and skill building may actually be the impetus for people eventually to return home.

REDEFINING DEVELOPMENT AND HUMANITARIAN AID

Second, the global community needs to rethink the divide between development and humanitarian aid, shifting the focus of both from helping people survive to helping them thrive. Unlike the World War II era when Bretton Woods was first established, displacement today is a generational phenomenon, with the average displacement lasting 10 years. The key statistic is that 60 percent of refugees are out of their own countries for over 20 years, and 80 percent for over 10 years.[7] Of the 330,000 Somalis living in the Dadaab camp in Kenya, one-third were born there.[8]

In this new reality, early childhood education and workforce training become core businesses of the humanitarian response, rather than peripherals left to governments and development actors to address. However, these sectors remain woefully underfunded; for example, just 2 percent of humanitarian aid goes to education.[9] We can and must do better to invest in areas that can help interrupt the cycle of violence that has

7 Nicholas Crawford et al., "Protracted Displacement: Uncertain Paths to Self-Reliance in Exile" (Prepared by the Humanitarian Policy Group at the Overseas Development Institute, London, United Kingdom, 2015), https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9851.pdf.

8 Alex Court, "'Growing hopelessness' grips 'forgotten' Somali refugees, warns UNHCR" (UNHCR, January 9, 2017), The UN Refugee Agency. https://www.unhcr.org/en-us/news/latest/2017/1/58738b174/growing-hopelessness-grips-forgotten-somali-refugees-warns-unhcr.html (accessed May 7, 2019).

9 UNESCO, "Education for All Monitoring Report. Humanitarian Aid for Education: Why It Matters and Why More Is Needed" (Policy Paper 21, UNESCO, Paris, France, 2015), https://en.unesco.org/gem-report/humanitarian-aid-education-why-it-matters-and-why-more-needed.

shattered so many countries and forced so many to flee their homes.

By fracturing our aid responses into public and private funding, humanitarian and development sectors, governmental and nongovernmental solutions, we risk forgetting the lessons that drove the Bretton Woods participants to construct a united approach 75 years ago. The protracted nature of displacement today necessitates bringing a diverse set of actors to the table at the start of a crisis to plan jointly for immediate and long-term solutions. No longer can we wait to bring in development actors, financing, and tools to support displacement populations, and no longer can economic development be viewed as separate from the humanitarian response in displacement contexts. Humanitarian and development solutions need to be complementary and work in tandem in order to lift up the lives of the world's most vulnerable people. The key is not institutional change but shared accountability for agreed-on targets. This idea links to a critical third point.

DISPLACEMENT AND EXTREME POVERTY

Third, we need to recognize the threat posed by the displacement crisis to the core global goal of eliminating extreme poverty by 2030 through the Sustainable Development Goals (SDGs). The SDGs will not achieve their targets for reducing poverty, increasing learning, eliminating hunger, or improving employment opportunities unless we meet the most vulnerable populations where they are increasingly concentrated: in fragile and conflict-affected states. There are now more people living in extreme poverty in Nigeria than in India, and with three-quarters of a billion people living in the world's 15 most fragile states, such states are increasingly where poverty—one of the biggest challenges underpinning all of the SDGs—is becoming concentrated.[10]

Yet the SDGs fail to put an adequate focus on the most vulnerable people. Just 13 of 169 SDG targets mention vulnerable people or conflict-affected populations, and not a single one explicitly refers to the displaced—a community of 68 million people, larger than either the UK or France.

The fractured nature of the humanitarian system requires common methods of accountability and shared goals to bring cohesion to our approach. To create these methods and goals, the SDGs need to be augmented with specific targets—"collective outcomes" that establish accountability for the humanitarian and development sectors covering health, education, protection, and income for populations affected by conflict in fragile states. These targets must go beyond input or output metrics, such as the number of tons of food delivered, and instead should target the elimination of

10 World Poverty Clock, "The Percentage of Nigerians Living in Extreme Poverty Could Increase by 2030" (World Data Lab, 2018), accessed May 21, 2019, https://worldpoverty.io/blog/index.php?r=12

extreme poverty. For example, SDG 8, Decent Work and Economic Growth, could incorporate refugees by setting targets for activity by displaced people in local labor markets—that is, for obtaining safe and decent work. Other SDGs, such as Quality Education, Zero Hunger, Gender Equality, and Sustainable Cities and Communities, can similarly be built on to incorporate and address the unique needs of displaced communities, such as psychosocial support to address trauma, nutrition standards, and access to schools in both refugee camps and urban settings.

Finally, the drive against global poverty needs to recognize the biggest shifts since Bretton Woods—the spread of the market economy and the spread of urbanization. Since 1960, GDP per capita has increased more than 23-fold, from US$450 to US$10,714. Relatedly, trade has become a more important part of the global economy, growing from 24 percent of world GDP in 1960 to 58 percent today.[11] In that time period, the percentage of the total world population living in urban areas has also increased, from 33 percent to 53 percent, or from 1 billion people to 4 billion people. Economic growth and urbanization have become closely linked—just 600 cities generate 60 percent of the world's GDP.[12]

THE CASH EQUATION

We need to embrace this shift as we think about how to help populations displaced by conflict. The new frontier in tackling their poverty is to make "why not cash?"—that is, cash or its electronic equivalent—the first question in humanitarian contexts. With rising humanitarian needs outpacing public aid, we need better aid that does more with less, and cash is a proven part of that equation. Just as the world has urbanized, so too have refugees. Sixty percent of displaced people worldwide live in urban areas,[13] not camps, and cash offers them a way to access the opportunities provided by local economies and make their own choices about what they need most. Cash doesn't just support refugees, it supports the communities they live in, too. In Lebanon, the International Rescue Committee found that every US$1 spent by a Syrian refugee generated US$2.13 of GDP for the Lebanese economy,[14] an equation that's critical to encouraging these low- and middle-income countries to keep their

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11 World Bank DataBank, "Trade (% of GDP)," accessed May 21, 2019, https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS.

12 World Bank DataBank, "Urban population (% of total)," accessed May 21, 2019, https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?view=chart.

13 UNHCR, "Urban Refugees," UNHCR: The UN Refugee Agency, https://www.unhcr.org/en-us/urban-refugees.html (accessed May 7, 2019).

14 International Rescue Committee, "Economic Impacts of Syrian Refugees: Existing Research Review and Key Takeaways" (IRC Policy Brief No. 1, International Rescue Committee, New York, NY, January 2016), https://www.rescue.org/sites/default/files/document/465/ircpolicybriefeconomicimpactsofsyrianrefugees.pdf.

doors open to people fleeing conflict, persecution, and environmental disaster.

Seventy-five years ago, leaders from 44 Allied nations came together to build a better international financial order when the previous one had failed them. They had tasted the bitter fruits of international division, and they vowed to learn the painful lessons of the protectionism, isolationism, and zero-sum approach to international affairs that precipitated World War II. The danger for our generation is the opposite: that complacency is the forerunner of crisis.

The changes in the global context have not been matched by appropriate changes to our international institutions, but we can change that. By reinvesting in the spirit and values that drove Bretton Woods, we can meet the challenge of today's shared problems. The lesson we should learn is the importance of breaking down walls to solve common problems, not building new walls in pursuit of the myth that we can keep problems out.

IN SEARCH OF A GLOBAL APPROACH TO THE GLOBAL MIGRATION CRISIS

DAMBISA MOYO
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Global mass migration has been at the heart of intense public debate and international dialogue in recent years. In the wake of migration and refugee crises around the world—including the ongoing European migration crisis, which alone registered the movement of over 1 million people in a matter of months—the politics and social impact of migration have attracted substantial attention. Yet the international community and, in particular, leaders and policymakers are not sufficiently focused on the considerable impact that global mass migration will have on the global economy in the coming years. Indeed, without stronger global cooperation, mass migration has the potential to become one of the greatest headwinds against economic growth and global peace and prosperity in the 21st century.

To meet the challenge of disorderly mass migration, the nations of the world need a more unified migration strategy, and there is much inspiration to be found in the Bretton Woods institutions, which have been the gold standard for international economic cooperation for the past 75 years. Unfortunately, today, the organizations that safeguard our economic world order have neither the mandate nor the ability to influence, let alone manage, global migration. Going forward, they must adapt accordingly.

Historically, population dynamics, migration, and refugee policy have been the purview of individual nation-states. But global migration is, by definition, a global problem. The world therefore needs an approach to mass migration grounded in the same spirit of international economic cooperation that has

been enshrined in the Bretton Woods institutions.

To understand the scope of the global migration challenge, it is important to examine the matrix of forces that drive migration. Global leaders also need a better understanding of the various economic effects—both positive and negative—that mass migration might have on the global economy. With such an accounting as a starting point, the nations of the world can then begin to develop a framework for renewed international cooperation in the face of this looming crisis—a framework that recognizes the complex set of competing national imperatives that fuels this debate.

THE FORCES BEHIND THE CRISIS

There are nearly 260 million international migrants around the globe.[1] Migration today has reached levels not seen since the end of the Second World War, in terms of both economic migrants—people who left their home countries voluntarily, seeking new opportunities abroad—and the nearly 70 million refugees, asylum seekers, and internally displaced people around the world who have fled violence, political persecution, natural disasters, and other dangers.[2]

The unprecedented speed and volume of modern economic migration and refugee movements are the result of a confluence of several factors that will continue to accelerate population movements in the coming century, including climate change, poverty and economic destitution, political instability, and violent conflict. Worse still, these same forces are strongest in the very countries and regions whose populations are growing the fastest. By the end of the century, more than 11 billion people will live on this planet.[3] Most of that growth will come from regions whose native-born populations have the greatest incentive to migrate.

Take Africa, for instance, a continent that will be home to 40 percent of the world's population by the end of the century.[4] According to the UN's 2017 International Migration Report, the rate of migration from Africa is already growing faster than that from any other continent, likely owing to the war, famine, disease, weak governance, and

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1 United Nations Department of Economic and Social Affairs (UNDESA), "International Migration Report" (United Nations, New York, NY, 2017), http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017_Highlights.pdf.

2 "Refugee Statistics," USA for UNHCR, accessed May 7, 2019, https://www.unrefugees.org/refugee-facts/statistics/.

3 "World Population Prospects: The 2017 Revision," UNDESA, June 21, 2017, https://www.un.org/development/desa/publications/world-population-prospects-the-2017-revision.html.

4 Geoffrey York, "Population Boom: 40% of All Humans Will Be African by End of Century," *The Globe and Mail* (Toronto, Ontario, Canada), posted August 12, 2014, updated May 12, 2018, https://www.theglobeandmail.com/news/world/africa-to-experience-population-boom/article19998373/.

terrorism that are still widespread across the continent.[5] In 2017, Transparency International ranked sub-Saharan Africa as the single most corrupt region in the world.[6] That same year, a leading World Bank official called Africa the planet's most disease-prone continent.[7] This long list of factors is already fueling an exodus of Africans to other parts of the world.

Meanwhile, in the next six years, India will overtake China as the world's most populous nation.[8] Every month, around a million Indians join the working-age population, and often they struggle to find jobs.[9] Poverty, of course, is one of the strongest motivating factors for economic migration: the UN's 2017 International Migration Report also estimated that more international migrants hail from India than from any other country.[10] And although its poverty rates are falling, India is still home to more people living in extreme poverty than almost anywhere else.[11]

The Middle East is home to the five countries with the fastest-growing populations in the world: Qatar, Oman, Lebanon, Kuwait, and Jordan.[12] Unfortunately, it is also home to political instability, uneven economic growth, and terrorism—all of which have contributed to some of the largest refugee crises of the 21st century. By the end of 2016, more than 12 million Syrians—more than half of the entire Syrian population—had been displaced from their home.[13] And according to the UN Refugee Agency, of the over 1 million refugees who crossed the Mediterranean

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5 UNDESA, "International Migration Report."

6 "Corruption Perceptions Index 2017," Transparency International, February 21, 2018, https://www.transparency.org/news/feature/corruption_perceptions_index_2017.

7 Nwafor Polycarp, "Africa Is the Most Disease Prone Continent—World Bank," *Vanguard* (blog), October 9, 2017, https://www.vanguardngr.com/2017/10/africa-disease-prone-continent-world-bank/.

8 S. Rukmini, "Five Surprising Trends in India's Population Growth in The Coming Decades," *Huffington Post*, posted June 24, 2017, updated June 26, 2017, https://www.huffingtonpost.in/2017/06/24/five-surprising-trends-in-indias-population-growth-in-the-comin_a_22676736/.

9 "Not Hiring Now," *Indian Express,* February 11, 2014, https://indianexpress.com/article/opinion/editorials/not-hiring-now/?sf1828582=1.

10 UNDESA, "International Migration Report."

11 Homi Kharas, Kristofer Hamel, and Martin Hofer, "The Start of a New Poverty Narrative," *Brookings* (blog), June 19, 2018, https://www.brookings.edu/blog/future-development/2018/06/19/the-start-of-a-new-poverty-narrative/. The only country with more people living in extreme poverty is Nigeria, which overtook India in early 2018.

12 Callum Brodie, "The World's Fastest-Growing Populations Are in the Middle East and Africa. Here's Why," World Economic Forum, May 3, 2018, https://www.weforum.org/agenda/2018/05/why-the-world-s-fastest-growing-populations-are-in-the-middle-east-and-africa/.

13 "Refugee Statistics," USA for UNHCR.

Sea in 2015, more than three-quarters were from Syria, Afghanistan, and Iraq.[14]

Looking to the future, climate change promises to catalyze further migration in the coming century. Already, climate disasters displace an average of 26 million people each year, according to the UN Food and Agriculture Organization.[15] As does population growth, climate change disproportionately affects the same regions whose people are most prone to migration. A 2016 study by the Max Planck Institute for Chemistry and the Cyprus Institute found that climate change could soon render large swaths of the Middle East and North Africa uninhabitable—spurring a new wave of mass migration in a region that already has the highest rate of population growth in the world.[16]

Together, this complex array of catalysts threatens to produce destabilizing global mass migration on a scale the world has never before confronted.

THE ECONOMICS OF MASS MIGRATION

Developing a framework for international economic cooperation on migration must begin with an honest accounting of the economic benefits and costs of mass migration for the global economy. On the downside, evidence indicates that many of today's migrants are finding it more difficult to survive and thrive in their new home countries than did previous generations of migrants.

The "age of mass migration," during the 19th and early 20th centuries, offers a valuable starting point for assessing the economic impact of migration. During that period, more than 50 million migrants left Europe, and around 30 million settled in the United States.[17] The economic benefits of that influx can still be seen today, a century later. Research conducted by economists from Harvard, Yale, and the London School of Economics found that US counties that took in a high percentage

14 UNHCR (Office of the United Nations High Commissioner for Refugees), Operational Data Portal, accessed May 7, 2019, https://data2.unhcr.org/en/situations/mediterranean?page=1&view=grid&Type%255B%255D=3&Search=%2523monthly%2523.

15 "Climate Change Is a Key Driver of Migration and Food Insecurity," United Nations Framework Convention on Climate Change, October 16, 2017, https://unfccc.int/news/climate-change-is-a-key-driver-of-migration-and-food-insecurity.

16 "Climate-Exodus Expected in the Middle East and North Africa," The Cyprus Institute, accessed May 7, 2019, https://www.cyi.ac.cy/index.php/in-focus/climate-exodus-expected-in-the-middle-east-and-north-africa.html; Farzaneh Roudi-Fahimi, "Population Trends and Challenges in the Middle East and North Africa" (Population Reference Bureau, Washington, DC, October 2001), https://www.prb.org/populationtrendsandchallengesinthemiddleeastandnorthafrica/.

17 Dudley Baines, "European Emigration, 1815–1930: Looking at the Emigration Decision Again," *The Economic History Review* 47, vol. 3 (1994): 525–44, https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1468-0289.1994.tb01389.x; Ran Abramitzky and Leah Boustan, "Immigration in American Economic History," *Journal of Economic Literature* 55, no. 4 (2017): 1311–45, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5794227/.

of immigrants during this era experience "higher incomes, less poverty, less unemployment, more urbanization, and higher educational attainment" in the 21st century.[18]

Indeed, many of the migrants who came to the United States during the age of mass migration provided vital low-skilled labor for the industrial revolution, facilitating rapid economic growth. In 1880, for instance, immigrants accounted for well over half of the manufacturing workforce, even though they comprised only a tenth of the population.[19] These immigrants themselves also prospered: in 2014, a Stanford University study found that, contrary to popular belief, European immigrants to the United States during the late 19th and early 20th centuries held jobs and had earnings similar to those of native-born Americans.[20]

But as a 2017 study published in the *Harvard Business Review* put it, "the more developed the destination country is, the less economic impact we are likely to see from migration."[21] Today, the industrial revolution is long over, and the need for low-skilled labor has declined. As a result, modern immigrants face much steeper economic challenges than did those during the industrial revolution, with American immigrants relying more heavily on government assistance programs and tax credits than their native-born peers.[22] Today, immigrants in America are significantly more likely to live in poverty, even though they are also more likely to be employed, than their earlier counterparts, according to a 2015 study by the National Academies of Sciences, Engineering, and Medicine.[23] Life for modern migrants is even more difficult in the European Union, where a 2015 Organisation for Economic Co-operation and Development (OECD) report found that foreign nationals experience substantially higher rates of poverty, and even the

18 Dan Kopf, "Places in the US That Took In More Immigrants in the 19th Century Still Benefit Economically from It," Quartz, June 3, 2017, https://qz.com/989099/the-places-in-america-that-took-in-more-immigrants-in-the-19th-century-are-richer-today-because-of-it/.

19 Sandra Sequeira, Nathan Nunn, and Nancy Qian, "Migrants and the Making of America: The Short- and Long-Run Effects of Immigration during the Age of Mass Migration," *ifo DICE Report* 15, no. 3 (2017): 30–34, https://www.cesifo-group.de/DocDL/dice-report-2017-3-sequeira-nunn-qian-october.pdf.

20 Clifton B. Parker, "European Immigrants to America in Early 20th Century Assimilated Successfully, Stanford Economist Says," *Stanford News Service,* August 7, 2014, https://news.stanford.edu/pr/2014/pr-immigration-myth-debunked-080714.html.

21 Vincenzo Bove and Leandro Elia, "Why Mass Migration Is Good for Long-Term Economic Growth," *Harvard Business Review,* April 18, 2017, https://hbr.org/2017/04/why-mass-migration-is-good-for-long-term-economic-growth.

22 Steven A. Camarota and Karen Zeigler, "Immigrants in the United States: A Profile of the Foreign-Born Using 2014 and 2015 Census Bureau Data," Center for Immigration Studies, October 3, 2016, https://cis.org/Report/Immigrants-United-States#30percent.

23 Alvin Powell, "Measuring Assimilation," *The Harvard Gazette,* September 21, 2015, https://news.harvard.edu/gazette/story/2015/09/measuring-assimilation/.

best-educated immigrants are more likely to be unemployed than European natives.[24] It is likely that such statistics contribute to commonly cited concerns that immigrants are placing an increasing burden on state welfare programs and social safety nets in developed host nations.

Despite the hardships immigrants face in highly developed Western nations, most prospective international migrants are still determined to move there. A 2012 Gallup poll found that, among the estimated 640 million adults who want to leave their home countries, the most popular destinations are the United States, the United Kingdom, Canada, and France.[25]

Many economists agree that today's migration has at least a modest positive impact on the economies of highly developed countries. In the United States, for instance, every 1 percent increase in the immigrant population results in a 1.15 percent boost to GDP, according to research conducted by Moody's Analytics.[26] In the United Kingdom, the International Monetary Fund found that a 1 percent increase in the share of migrants in the adult population yielded a 2 percent increase in productivity and GDP per capita.[27]

But these benefits can come at a notable cost to the economies of migrants' countries of origin. At the turn of the millennium, the OECD calculated that more than half of the college-educated natives in impoverished countries such as Trinidad and Tobago, Haiti, Guyana, and many more of the poorest nations in Africa, Asia, and Latin America left their home countries to migrate to more prosperous ones.[28] This "brain drain" has made it nearly impossible for impoverished countries around the world to maintain sustained economic growth—a situation that perpetuates cycles of poverty as well as catalyzing mass migration itself.

24 Organisation for Economic Co-operation and Development, "Indicators of Immigrant Integration 2015: Settling In" (OECD Publishing, Paris, 2015), https://read.oecd-ilibrary.org/social-issues-migration-health/indicators-of-immigrant-integration-2015-settling-in_9789264234024-en#page1.

25 Jon Clifton, "150 Million Adults Worldwide Would Migrate to the U.S.," Gallup, April 20, 2012, https://news.gallup.com/poll/153992/150-million-adults-worldwide-migrate.aspx.

26 Lena Groeger, "The Immigration Effect," ProPublica, July 19, 2017, https://projects.propublica.org/graphics/gdp.

27 Jonathan Portes, "The Economic Impacts of Immigration to the UK," Vox, April 6, 2018, https://voxeu.org/article/economic-impacts-immigration-uk.

28 Jean-Christophe Dumont and Georges Lemaitre, "Counting Immigrants and Expatriates in OECD Countries: A New Perspective" (Social, Employment and Migration Working Papers 25, OECD Directorate for Employment, Labour and Social Affairs, Paris, France, 2004), 14, http://www.oecd.org/els/mig/35043046.pdf.

COMPETING NATIONAL PRIORITIES AND THE NEED FOR INTERNATIONAL COOPERATION

In the coming decades, a massive influx of migrants could very well spur a new era of economic growth and prosperity, as it did during the original age of mass migration. But without international cooperation around this unprecedented challenge, this new age of mass (particularly disorderly) migration could also prove disastrous and threaten to upend the global economy.

Collectively, the International Monetary Fund, the World Trade Organization, and the World Bank manage the worldwide flow of capital, the global trade of goods and services, and the international development agenda. Yet they have little to no authority over the most important economic resource of all: human capital. Perhaps now is the moment to contemplate the creation of a World Migration Organization, an international cooperative body with a mandate to help member states manage the flow of labor across borders. As with similar Bretton Woods organizations, membership would be voluntary; admittance would be extended by invitation of existing members; benefits and responsibilities would be widely distributed in keeping with shared and stated goals; and the enforcement of agreements would be codified in the organization's charter, to ensure the organization's effectiveness.

While it is true that there are international agencies that monitor and manage global population movements, these agencies are often limited in their scope and authority. The United Nations, for instance, contains a complex web of divisions and departments dedicated to examining population dynamics and advocating for migrants and refugees, including the UN Refugee Agency, the UN Population Fund, and the International Organization for Migration. Unfortunately, while the work of these divisions is critically important, they simply lack the influence, mandate, and broad perspective necessary to fully address the global migration crisis.

As long as migration policy is the purview of national governments—all with their own competing agendas and national political imperatives—there will inevitably be barriers to international cooperation around migration. Developed nations, of course, want to attract the best and brightest migrants, while developing countries rely on low-cost, low-skilled workers to attract foreign investment and drive economic growth, all the while struggling to attract and keep their most talented citizens. Meanwhile, national politicians themselves are beholden to political incentives. Their thinking is inherently focused on short-term priorities, rather than the long-term, global consequences of the policies they enact. As a result, political concerns—and the ethnic, religious, and cultural anxieties that drive them—often

play a much larger role than objective economic analysis in shaping national migration policies.

Against this backdrop, international organizations like the Bretton Woods institutions provide a valuable model for what international cooperation on migration might look like in the 21st century. Existing international accords, such as the Paris Agreement on climate change, have already proven that international cooperation is possible even when the countries involved have different priorities, capabilities, and agendas—just as they do when it comes to migration.

By embracing greater international cooperation, the nations of the world can mitigate the risks of chaotic and destabilizing mass migration while also reaping the benefits migration can bring. But by rejecting this cooperation, these same nations risk even greater chaos, including escalating fear and ethnic hostility, reactionary politics, and rising protectionism, particularly in the highly developed Western countries that attract the greatest numbers of migrants.

The world needs a unified migration strategy—one that examines the surpluses and deficits of human capital around the globe and channels migrants to where they are needed the most. The Bretton Woods spirit is a proven place to start to think of such an audacious approach.

CYCLICAL CRISES IN THE 21ST CENTURY

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The concept of state and sovereignty has evolved since the Renaissance and crystallized in a many-nuanced way. Over the course of the 20th century, cyclical crises occurred as the mechanisms for implementing power varied from parliamentary monarchy to dictatorial systems such as Communism, Fascism, and Nazism. With the evolution of more modern concepts of democracy, the absolutism of orthodox liberalism gave way to a new liberalism, which viewed many state interventions as important mechanisms for directing public policies. Politics—that is, the art of governing—determined the mechanisms for implementing power, both as a strategy of carrying out national visions and as a catalyst for systems of global competition.

The conceptual and pragmatic evolution of ideas about preserving freedom in the midst of economic and social development projects has never been as effective and efficient as the one that took place after the war period of 1939–1945 and resulted in the creation of a global project through what took shape in Bretton Woods, New Hampshire.

HISTORICAL CYCLES AND 20TH-CENTURY CRISES

The historical cycle of peace and conflicts that many historiographers have addressed theoretically was described more distinctly in Arnold Toynbee's theory of cycles,[1] which asserted that from the Renaissance to the 20th century, every century had an initial period of peace followed by a localized war, after which there was an interwar period followed by a world war, finally followed by a long period of peace. We saw proof of this theory of cyclical crises in

1 Arnold J. Toynbee, *A Study of History*, 12 vols. (Oxford, UK: Oxford University Press, 1934–61).

the 20th century when the First World War of 1914–1918 interrupted an initial period of peace, followed by the interwar period, which originated the Second World War, in which more than 60 million people were killed.

From the ruins of that war arose the great victor, the United States, whose military and economic power was utilized wisely at Bretton Woods, producing, over successive obstacles, a long period of peace during which the basic principles of the rule of economic "liberalism" were consolidated. The result was the establishment of the US dollar as a reference currency and of US military power as a form of persuasion. This period's European reconstruction and globalization of more or less successful socioeconomic development projects were perhaps the most wide-reaching and effective in our history, at least over the last 2,000 years.

Today, however, a global project based on the unique power of the United States has a tendency to be replaced by a multiplication of centers of power. The existence of other convertible currencies, either regional or national, indicates the way toward a new, multicentered world in which the military confrontation of the past will be supplanted by the work of global organizations or even of new multilateral systems. A multicentered world implies the need for ever more urgent forms of control over noneconomic factors such as those that govern climate change and mass migrations, either for economic or political reasons or due to environmental disasters. The main question is whether this transition from the centralized model of Bretton Woods to the one that will succeed it will be regulated and developed in the 21st century without destructive armed conflicts.

TWO NEW CHALLENGES

Confrontation scenarios today are of two types, presenting two different challenges. *The first challenge* is an eventual military confrontation regionalized as what Henry Kissinger divided into three possible regional wars:[2]

1. The nuclear challenge posed by North Korea
2. Ideological and religious conflicts in the Middle East
3. Iranian expansionism

This international scenario could have underlying impacts that erode the system of balances supported by the global power of the United States. At their core, however, these impacts would also carry challenges for the lesser powers that intend to be part of the global power in one way or another.

The second challenge is found in the impact of new technologies on the

2 Henry A. Kissinger, "Opening Statement by Henry A. Kissinger before the Senate Armed Services Committee" (Speech, Washington, DC, January 25, 2018), U.S. Senate, https://www.armed-services.senate.gov/imo/media/doc/Kissinger_01-25-18.pdf.

economic and social balance of both developed and developing countries. This impact is already surpassing territorial issues and threatening the economic order preestablished by the system of global balances.

In the 20th century, the technological advances needed for the progress of nuclear warfare ceased to be exclusively American and started to be developed also by other global powers, such as Russia, and by developing countries, such as India, Israel, North Korea, Pakistan, and many others. The challenge of controlling a weapon that is potentially lethal at a global scale has started to be part of the macropolicies of all military and economic powers, not those of the United States alone.

Thus, given the high level of irrationality of solutions that come from military, ideological, or religious sources, short-term solutions are increasingly urgent. There is a pressing need for a standardized system of economic and sustainability models that acknowledge the importance of multipolar balance and global co-responsibility for the creation and distribution of the collective wealth of the planet—that is, we need a new Bretton Woods system for new convertible currency baskets, as well as new models of global financial centers whose mission is to structure a *sustainable* economy.

To design these models in the 21st century, we need to create new tools to codify the policies pertinent to the strategies and tactics of a future scenario of socioeconomic and environmental development. We need a strategy in which all major powers create mechanisms of effective impact, not only on the military equilibrium among them but also on their ability to intervene in regional imbalances as necessary to stabilize military conflicts and avoid greater catastrophes.

Again according to Henry Kissinger, for this system to work efficiently, there are two prerequisites:[3]

1. The "balance of power" must be maintained, and to do so requires an understanding of the elements that constitute the system of power. In this era of rapid change, such an understanding requires advanced communications systems as well as a common recognition of the great global threat of mutually destructive confrontation.

2. There must be an overall political strategy. Although essential, the simple power balance between military forces does not constitute by itself a political strategy. Obviously, the most advanced military technologies, which combine cyber and space-based technologies as well as artificial intelligence (AI), would certainly turn any confrontation between major powers into a final catastrophe.

3 Ibid.

THE IMPORTANCE OF ENVIRONMENTAL POLICIES

Cutting-edge thinkers and researchers have reckoned that at the turn of the 20th century we passed from the Holocene to a new era, the Anthropocene. That means that for many millennia, humans made use of natural resources and became dependent on them. As we entered the Anthropocene, nature became dependent on humans, who are now responsible for the supply-and-demand balance of all natural assets.

In response to this shift in responsibility, policy makers have created various mechanisms to control and implement environmental policies, especially the following:

- *UNFCCC* (United Nations Framework Convention on Climate Change): An international environmental treaty that entered into force in March 1994
- *UNCBD* (United Nations Convention on Biological Diversity): A convention that agrees on goals and procedures to protect and use biodiversity in a sustainable way
- *DSDG* (United Nations Division for Sustainable Development Goals): A UN division that seeks to provide leadership and catalyze action to promote and coordinate the implementation of internationally agreed-upon development goals, including the 17 Sustainable Development Goals.
- *IPCC* (Intergovernmental Panel on Climate Change): A scientific panel that, since 1988, had produced assessment reports every six to seven years on the state of climate change
- And many others

We see, therefore, that the new models of political and economic governance require, for their implementation, a combination of means and ends as a safeguard of their own power. These new models should be based on fundamental principles of economic globalization in order to produce balanced relations within the global market. The future vision of a project that could give rise to beneficial and impactful effects with a universal view requires that all related actors develop mechanisms to boost the sustainable development of underdeveloped countries. The goal is for these countries to reach development indexes closer to those of countries with adequate standards of social inclusion and consumption. However, the most important thing is that the 17 Sustainable Development Goals be universalized.

NEW MECHANISMS TO ADDRESS OLD PROBLEMS

It is clear to us that the successful mechanisms developed at Bretton Woods in 1948, such as the IMF, the World Bank, and later the United Nations, as well as almost all sectoral agencies that have provided important mechanisms

for the great political and economic success of the last 70 years, now need to be expanded to include multiple new mechanisms.

It is evident that the worldview and the psychosocial and economic realities of the various countries that are part of our universe are still impacted by the variety of ethnicities, by religious and cultural factors, and by their own histories. The tribes that have developed during the history of human civilization will always embrace different viewpoints regarding other countries and other tribes, as well as their many ideologies, and will always pursue visions of their own centrality, certain to be in conflict with the current realities of other countries and other tribes.

Today, the United States still bears the greatest share of responsibility for the elaboration of global policies. It seems to us that the greatest asset left by Bretton Woods, the central role of the United States, will be lost, in the economic field and in the one necessary for solving pressing global issues, such as global warming, sustainability of the ecosystems necessary to support human life, and many other fundamental issues of collective interest.

A new strategy is needed for the evolution of liberal political systems, in view of the technological advances that will change the unfolding of history. Since the 15th century, humankind has witnessed a rapid and efficient progress that has radically transformed the ways in which we learn different kinds of knowledge. We need to rethink the impacts of new technologies, as well as the necessary transformations in economic systems for the adoption of various management models, and their possible consequences for welfare and socioeconomic inclusion across the globe.

Systems of communication and data accumulation available today due to technological advances have changed the way humans access knowledge and information. These systems have introduced different ways to use the same information to create global technologies suitable for the future. Thankfully, human intelligence and the ability to ask questions are complemented, not replaced, by these new technologies. AI has made anachronistic the human capacity per se to develop new strategies, so we must learn how to use AI in combination with the explanatory capacity of language and human rationality. We must be careful not to allow new technologies to move humans away from the philosophy and knowledge acquired over the last 4,000 years that is still essential for building a new form of humanism.

Even the greatest liberal philosophers of the 19th and 20th centuries advocated government intervention as a necessary remedy to prevent political and social unrest in moments of crisis that could potentially lead to social and economic collapse. The problem we now face is how to intervene without changing the way we exercise freedom as advocated by the liberal principles of democracy.

We must remain optimistic in this global political scenario, since all of the anticyclical remedies are embedded in the very origin of the crisis that affects humanity. This crisis will surely lead us from unilateral supremacy toward a compromise that will regulate the decentralization of power. Its essential purpose will be the continuation of sustainable development and a necessary and urgent solution to avoid military clashes or something even more terrifying: the short-term consequences of a gradual intensification of climate change and its destructive powers against the civilization created by humankind over the last 20 centuries.

FROM ENVIRONMENTAL LIMITS TO SUSTAINABLE DEVELOPMENT

When, in the 18th century, Thomas Malthus, perhaps the most important of the early economists, predicted the limits of growth as a result of finite natural resources, he created the theory known as "environmental limits."[4] In the 20th century, economist Schumacher[5] drew attention to the fact that the very speed and extent of development would bring about a destructive phenomenon for the planet through the depletion of natural resources. This event would have environmental impacts that would hamper the policies needed for the continued development of these same societies. Schumacher's theory resulted in the creation of the concept of "sustainable development."

All roads toward implementing the concepts of sustainable development involve the use of these same resources—as well as new technological, political, economic, and social mechanisms—to co-create models of power use aimed at continuing the fundamental effects of development created by the Bretton Woods Agreement. However, these processes should no longer be carried out in a system based on a central power but by a plurality of powers working toward the same purpose. Ultimately, the system that should be created to make way for harmonious and shared growth needs a "social contract" to determine the limits and factors opposed to growth and to the sustainability of life on our planet.

We should, however, be cautious along this road, because our progress on it could be challenged precisely by the globalization of advanced technology, through the side effect of decreased job availability and consequent social exclusion as a broader concept. This eventuality will necessitate a new model of education.

Among the greatest threats faced by humankind in the near future, apart from the spread of nuclear power, is

4 Thomas Robert Malthus, *An Essay on the Principle of Population as It Affects the Future Improvement of Society, with Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers* (London: J. Johnson, 1798).

5 E.F. Schumacher, *Small Is Beautiful* (London: Abacus, 1973).

climate change caused by current technologies and by the current economic and production model. There is as yet no solution for

1. controlling the emissions of gases that cause climate change;
2. creating a new political model—that is, social democracy as we understand it today; or
3. updating the economic and social system established in the last century.

These three interrelated points must be urgently discussed and concretely addressed, especially when we consider that the process of *acceleration of history* requires quick solutions as well as technological advances to achieve collective and comprehensive results. The required discussions and actions are surely tasks that should be allocated to the Bretton Woods system.

In the case of global warming and its consequences, the Paris Agreement constitutes an organized institutional collaboration and cooperation among all nations. It carries in its body even the necessary seeds for change in the economic structure and for solutions to the problems of development and inclusion. However, the mechanisms for working toward the Paris Agreement's goals of sociological balance have not yet been designed. Many proposals will be discussed at the 25th Conference of Parties of the UNFCCC, scheduled to take place in Rio de Janeiro in December 2019. Among the various measures that have been advocated, some are more potentially effective, such as carbon pricing and others that could alone help control CO_2 emissions by creating a new target value.

Perhaps the very threat that is perceived and structured not only by the urgency of dealing with climate change, but also by the clear need to reform the models of liberal democracy, could bring about a new Bretton Woods that would gather support from many different centers of future power, not only the United States. This type of cooperation could bring into the world a new cycle of growth and inclusion with no need for wars or difficult negotiations through institutions such as the World Trade Organization, which could be fatal for humankind as a whole. In that case, it is a must for the Bretton Woods system to codify and structure international agreements on how the new "monnaie de compte" should be built to comply with the needs of future modernity, international trade, and fluidity of the market.

TECHNOLOGY, THE FUTURE OF WORK, AND PROSPECTS FOR DEVELOPING ECONOMIES

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The summer of 1944 is rightly celebrated as the time when the Bretton Woods conference established new rules for the postwar international monetary system. One month after that conference, 150 miles to the south, another celebrated event took place: IBM officially presented Harvard University with an automatic sequence-controlled calculator, dubbed the Harvard Mark 1. A precursor of today's computers, it was the first machine that could execute long computations automatically. It weighed five tons and was encased in a steel frame 51 feet long and 8 feet high.[1]

1 "IBM's ASCC Introduction (a.k.a. The Harvard Mark 1)," IBM archives, accessed May 2019, www.ibm.com/ibm/history/exhibits/markI/markI_intro.html.

Today, 75 years later, the smallest smartphone on the market is infinitely more powerful than the Harvard Mark 1. Yet the advances in computing that these early machines represented sparked many of the same concerns and fears back then that automation and artificial intelligence do today. People worried that these new contraptions would take away their work and change their lives for the worse.

Already back in 1930, John Maynard Keynes worried about "technological unemployment," and the late 1940s and 1950s saw an outpouring of concerns about job-killing machines, from Martin Heidegger's techno-pessimistic treatise "The Question Concerning Technology" in 1954 to the 1957 movie *Desk Set,* starring Spencer Tracy as an engineer hired to install a computer for Katharine Hepburn, who plays a TV network researcher. The computer ends up firing her, the entire research staff, and the network president.[2]

Such fears were overblown then and—we would argue—remain so today. Not only is there no mass unemployment, but the global labor force has expanded to about 3 billion people, about 500 million more than the total world population back in 1944. Technology has transformed livelihoods and the workplace, boosting productivity and creating new jobs and prosperity. In the United States alone, we estimate that the personal computer created 15.7 million net jobs between 1970 and 2015. While some jobs, such as typist were eliminated, the creation of new jobs, ranging from software developer to customer service rep and app developer, easily offset those lost. The net gain amounted to about 10 percent of the US civilian labor force in 2015.[3]

For the global economy, too, technology has transformed the way that countries and companies connect across borders, giving birth to a new era of globalization that has brought developing economies into a worldwide system of trade and financial flows. At a time when globalization is under attack from all sides, it is worth remembering that it has boosted global growth and brought widespread prosperity; since 1990, more than 1.1 billion people in emerging economies have been lifted out of extreme poverty.[4] The Bretton Woods institutions have played a critical role, providing a rules-based, multilateral framework that has enhanced (albeit imperfectly) macroeconomic and financial market stability.

Yet even if technology has not proved to be the existential threat that gloomy

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2 John Maynard Keynes, "Economic Possibilities for Our Grandchildren," in *Essays in Persuasion* (London: Macmillan, 1933), 358–74; Martin Heidegger, "Die Frage nach der Technik," in *Vorträge und Aufsätze 1936–1953,* vol. 7 (Frankfurt am Main: Vittorio Klostermann, 2000), 5–36; *Desk Set* (20th Century Fox, 1957).

3 James Manyika, Susan Lund, Michael Chui, Jacques Bughin, Jonathan Woetzel, Parul Batra, Ryan Ko, and Saurabh Sanghvi, "Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation" (McKinsey Global Institute, New York, NY, December 2017).

4 World Bank, World Development Indicators database, accessed May 2019, https://datacatalog.worldbank.org/dataset/world-development-indicators.

philosophers and popular culture would have us believe, the economic and social transformations it has brought to date—and the very substantial transformations it will continue to bring in the future—nonetheless pose significant challenges, even as they create new opportunities. As automation and artificial intelligence are increasingly adopted, the workplace and the global economy will change. Opportunities for developing countries are shifting as machines transform manufacturing processes and erode their historic competitive advantage of large pools of low-wage labor.

This paper examines the changes that automation and artificial intelligence are bringing to occupations and skills across the global economy; looks at how they are transforming trade flows and upending much conventional wisdom and past practice in the business world around global value chains; and concludes with a discussion of the implications of these shifts for all countries, but particularly low-income countries in need of new development paths. The next chapter of global integration and the challenge of making future growth more inclusive are issues of central importance to the global economy and, as such, ones that the Bretton Woods institutions could address as part of their evolution in a changing world.

AUTOMATION IS CHANGING WORK AND SKILLS

Our research at the McKinsey Global Institute over the past three years has focused on rapid advances in automation technologies and their potential impact on work.[5] We use the term *automation* to refer to a range of technologies, including advanced robotics, autonomous vehicles, and artificial intelligence. We developed a range of scenarios for the speed of adoption of these technologies and found that in most scenarios, new labor demand and job creation will likely be strong enough to more than compensate for the jobs displaced by automation through 2030. This is true even in the advanced economies at the forefront of adoption. Nonetheless, almost all jobs will change to some extent; we estimate that in about 60 percent of all occupations, as much as 30 percent of work activity is potentially automatable. Work most susceptible to automation includes jobs that require performing routine physical activity in a predictable setting, collecting and processing data, and conducting routine customer transactions.

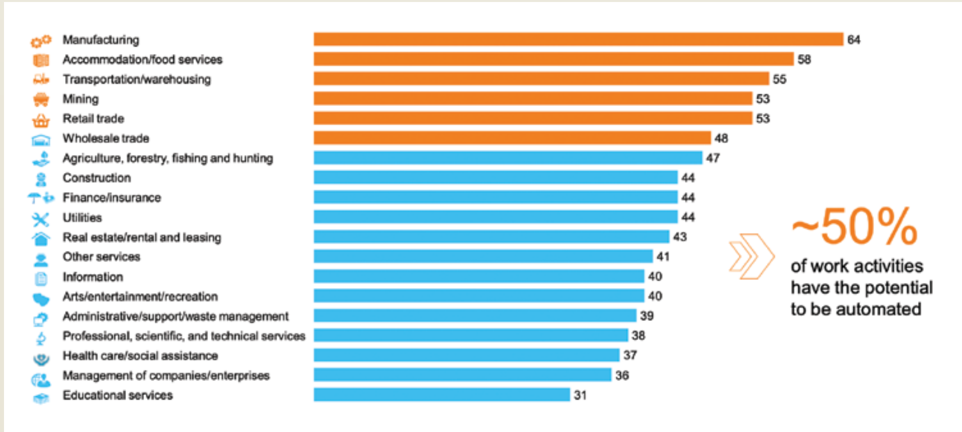
Automation will thus play out differently by sector, depending on the types of work activities most prevalent. As figure 1 shows, sectors including manufacturing, accommodation and food service, transportation, and retail are considerably more susceptible to

5 See Manyika et al., "Jobs Lost, Jobs Gained"; and Jacques Bughin, Eric Hazan, Susan Lund, Peter Dahlström, Anna Wiesinger, and Amresh Subramaniam, "Skill Shift: Automation and the Future of the Workforce" (McKinsey Global Institute, New York, NY, May 2018).

FIGURE 1.
THE AUTOMATION POTENTIAL OF WORK ACTIVITIES VARIES BY SECTOR

Impact of automation by industry in the United States.

Full-time equivalent weighted percentage of technologically automatable activities by industry. Automation potential is defined by the work activities that can be automated by adapting currently demonstrated technology.



SOURCE: MGI Global Automation Impact Model, McKinsey Global Institute analysis.

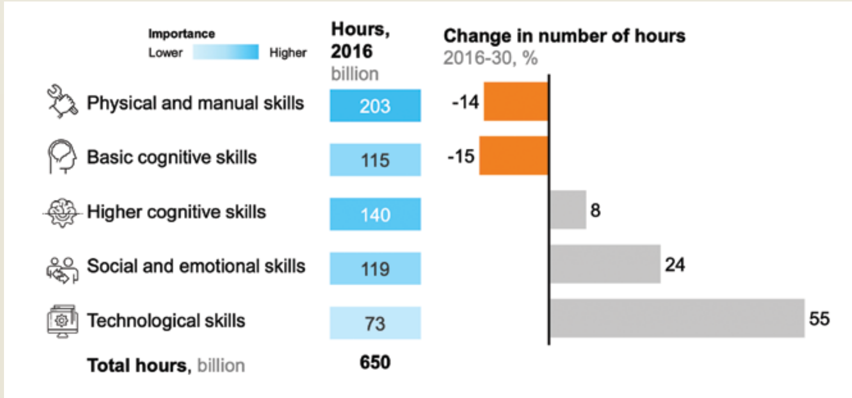
automation than other sectors, such as health care or teaching, in which human interaction is much harder to replace with machines.

As rapidly evolving machines play an ever-larger role in the workplace, we can also expect substantial workforce transitions. In our most accelerated scenario for automation adoption, as many as 375 million workers worldwide, or about 14 percent of the global workforce, may need to switch occupational categories between now and 2030. Even if the pace of adoption is slower, as in our midpoint scenario, that could mean about 75 million workers who need to switch occupational categories in the next 10–15 years.

The skill implications of these shifts for the workforce are significant. We can already see one of the key challenges, that of worker retraining, advancing to the top of the corporate agenda and receiving renewed public policy attention in some countries. Some firms, including AT&T, Walmart, Tata, Infosys, and Tech Mahindra, are putting in place large-scale workforce retraining initiatives. AT&T is using external education providers such as Udacity, for example, whereas at Germany's SAP, the focus is on in-house efforts to create "learning journeys" for

FIGURE 2.
THE SKILLS NEEDED IN THE WORKFORCE WILL SHIFT TOWARD MORE TECHNOLOGICAL AND SOCIOEMOTIONAL SKILLS

Includes United States, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom. Figures may not sum due to rounding.



SOURCE: McKinsey Global Institute analysis.

thousands of employees, including software engineers who need to acquire "softer" skills as their roles change to serving customers directly.

Indeed, our recent work on the skills that will be needed by the workforce in the future shows that demand will rise sharply not just for technological skills of all kinds but also for social and emotional skills, including leadership and ability to manage others. Basic cognitive skills will no longer suffice for many jobs, while the need for higher cognitive skills such as creativity and complex information processing will increase. Demand for physical and manual skills will decline. However, in many countries, the latter will remain the largest category of skills in terms of hours worked (figure 2).

These skill shifts will also have repercussions for education, with a high school education no longer sufficient for many types of jobs in the future, especially in advanced economies.

While we see automation adoption as a worldwide phenomenon, we also expect the pace and extent of that adoption to vary among countries. Lower relative wage levels in developing countries could mean slower adoption there, since the business case for investing in automation technologies will be less compelling. Nonetheless, saving costs through labor substitution is only one factor among several that companies will consider. Automation technologies are also powerful tools for improving the quality and increasing the speed of

production, reducing waste, and innovating more generally. Already, for example, we can see China emerging as a leading investor in artificial intelligence capabilities, along with the United States, well ahead of Europe in terms of research and development (R&D) spending. We can also see textiles and apparel companies experimenting with robotics in production, which not only speeds the process and reduces waste but also uses vastly less labor.

TECHNOLOGY IS RESHAPING INDUSTRY VALUE CHAINS AND ERODING LABOR-COST ARBITRAGE

Even as it roils the workplace, technology has been transforming globalization. While the public debate today is focused on rising trade disputes and protectionist measures, over the past decade, globalization has undergone little-noticed but profound structural shifts that are changing the calculus of where goods are produced and which countries stand to gain.[6]

Over the last 10 years, both output and trade volumes have continued to rise, but the share of goods traded across borders has fallen sharply. This decline in trade intensity has nothing to do with the recent trade wars, however. In fact, it reflects healthy economic development in China and other emerging markets. More of what gets made in these countries is now consumed locally instead of being sent to advanced economies. Moreover, these markets are developing their own domestic supply chains and rely less on imported intermediate goods.

The geography of global demand is shifting radically away from the aging advanced economies. The developing world accounted for less than 20 percent of global consumption in 1995, but now that share has grown to nearly 40 percent and will top 50 percent by 2030. The new global consumers these numbers represent are creating major opportunities for the domestic companies in these countries—and also for exporters around the world. Companies in advanced economies sold more than US$4 trillion worth of goods to the developing world in 2017. Digital e-commerce marketplaces with global reach are opening the door for more small and medium-sized manufacturers to capture a slice of this growth.

While trade in goods has flattened, services and cross-border data flows have become the real connective tissue of the

6 Susan Lund, James Manyika, Jonathan Woetzel, Jacques Bughin, Mekala Krishnan, Jeongmin Seong, and Mac Muir, "Globalization in Transition: The Future of Trade and Value Chains" (McKinsey Global Institute, New York, NY, January 2019).

global economy.[7] Some types of services trade—information technology services, business services, and intellectual property royalties—are growing two or three times faster than trade in goods. From design to marketing, services also account for 30 percent of the value of exported goods. Collectively, advanced economies run a trade surplus in services of US$480 billion, twice as high as a decade ago. These economies are well positioned to capture future growth in areas such as entertainment streaming, cloud computing, remote health care, and education.

All industry value chains, including those that produce manufactured goods, now rely more heavily on R&D as well as innovation. Spending on intangible assets, such as brands, software, and operational processes, has more than doubled relative to revenue over the past decade. This development bodes well for Europe, the United States, and other advanced economies with highly skilled workforces and strong intellectual property protections.

The last era of globalization, in the 1990s and the subsequent decade, saw the offshoring of production, causing factories to be shuttered in advanced economies and manufacturing to migrate to the developing world. Today, the labor arbitrage game appears to be coming to an end. Only 18 percent of today's goods trade now involves exports from low-wage countries to high-wage countries. That's a far smaller share than most people assume—and one that's declining in many industries. In textiles and apparel, the share of trade flow from low-wage to high-wage countries has declined from 55 percent in 2005 to 43 percent in 2017.

Automation and artificial intelligence technologies will continue to make labor costs a less important factor when companies decide where to invest in new plants. Factors such as infrastructure, workforce skills, and especially speed to market—attributes that developing countries lack—are weighing more heavily in the equation.

All of these circumstances could produce a shift away from production in low-wage countries, enabling advanced economies to recapture a bigger share of the world's production—albeit in a more digitized form.[8] This type of manufacturing will not put millions to work on assembly lines, but it does support more highly skilled and therefore better-paying jobs.

7 James Manyika, Susan Lund, Jacques Bughin, Jonathan Woetzel, Kalin Stamenov, and Dhruv Dhingra, "Digital Globalization: The New Era of Global Flows" (McKinsey Global Institute, New York, NY, April 2016); Rana Foroohar, "California Leads the Way on Data Regulation," *Financial Times,* February 24, 2019, https://www.ft.com/content/3406505e-36b9-11e9-bd3a-8b2a211d90d5.

8 Rana Foroohar, "Made in the USA: Inside One Company's All-American Supply Chain," *Financial Times,* February 20, 2019, https://www.ft.com/content/c0e2c544-349c-11e9-bd3a-8b2a211d90d5.

TOWARD A NEW DEVELOPMENT PATH

Labor-intensive manufacturing for export has been the only proven path for low-income countries to climb the economic ladder rapidly. First in Japan, then in South Korea and Taiwan, and most recently in China, export-led manufacturing generated high rates of economic growth and lifted hundreds of millions of people out of poverty. But as countries become richer, the share of employment in manufacturing eventually peaks and starts to decline, at which point service sectors such as finance, retail, transportation, and business services take over as leading job creators. This peak is occurring earlier and earlier in the development process, a phenomenon that Dani Rodrik has dubbed "premature deindustrialization."[9]

So against the backdrop of automation's changing work and trade, what will become of the prospects for low-income countries? In the short term, export-led, labor-intensive manufacturing may still have room to grow in some low-wage countries (figure 3). Bangladesh, India, and Vietnam are achieving solid growth in labor-intensive manufacturing exports, at a time when China's wages are rising, and it is focusing on higher value-added value chains. Countries pursuing this classic manufacturing path will need to invest in transportation and logistics infrastructure and modern, technology-enabled factories that can compete globally.

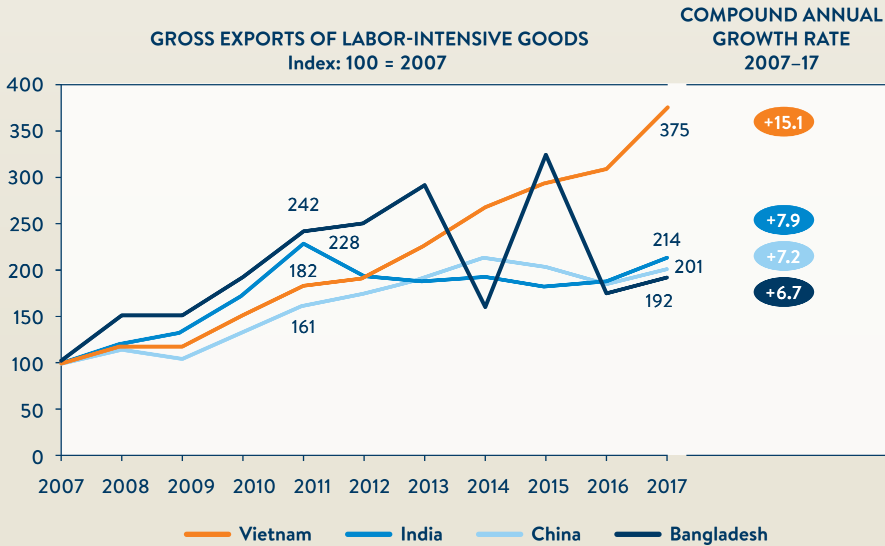
Other opportunities may also arise in the next era of globalization. Speed to market and proximity to major consumer markets is becoming increasingly important in a range of consumer goods, from fashion to household goods to electronics, as companies respond to changing consumer tastes. Countries and regions that are near the major consumer markets—such as Mexico and Central America to the United States, and North Africa, Eastern Europe, and Turkey to the European Union—may stand to gain from these trends.

A third path may be through service exports. Developing countries, including Costa Rica, India, and the Philippines, that specialize in traded business-process operations and information technology services will likely have new opportunities as trade in services continues to rise. Indeed, one finding of our research is that the cross-border services trade is growing more than 60 percent faster than trade in goods and is generating more economic value than traditional trade statistics capture.[10] However, an important caveat is that these types of traded services face important challenges, since artificial intelligence and virtual agents can respond to only the most basic customer queries. For this path to remain successful, these countries will need to develop a more skilled workforce and move into higher-value offerings, such as

9 Dani Rodrik, "Premature Deindustrialization," *Journal of Economic Growth* 21, no. 1 (2016): 1–33.

10 Lund et al., "Globalization in Transition."

FIGURE 3.
SOME DEVELOPING ECONOMIES ARE STILL INCREASING THEIR EXPORTS OF LABOR-INTENSIVE GOODS



SOURCE: McKinsey Global Institute analysis.

software and Web development, graphic design, and customer sales.

Closer regional integration may also hold potential. Intraregional trade is rising globally, driven by the growth of value chains within Asia and within the 28 EU countries. But intraregional trade remains low in Africa and Latin America. In these regions, further regional economic integration can create markets with scale and open up new trade opportunities. Within the East Africa Community, for instance, manufactured goods make up a larger share of internal trade than of trade with the rest of the world. Existing trading blocs in Latin America and Africa could be deepened to create regional trade opportunities.

Finally, technology may enable some developing economies to leapfrog ahead in some areas, bypassing the technologies of the last era altogether. The digitization of the economy creates an imperative for developing economies to build digital infrastructure, and mobile apps, cloud computing, and digital finance are proving to be powerful enablers. Already we can see that countries such as China and Kenya have taken a global lead in digital financial services accessed by mobile

phone.[11] India has enrolled more than 1.2 billion people in its Aadhaar digital ID program, which has boosted a range of other digital services including online banking; government benefits are paid directly into online accounts linked to Aadhaar.[12] Digitization is enabling new credit scoring models for small and medium-sized enterprises in some emerging economies, and digital platforms such as Alibaba, Amazon, and eBay are spawning a new generation of "micro-multinationals"—tiny companies that can achieve global reach.

The specific challenges and opportunities differ for individual countries. Yet a few priorities apply across the board. No matter where countries specialize today, strengthening their service sectors and capabilities is an important opportunity for the future. Investment in R&D will be critical to competing in an increasingly knowledge-intensive global economy. Upgrading skills for all and finally realizing the oft-stated goal of lifelong learning will be essential if we are to reap the full benefits that new technologies promise. Above all, notwithstanding the gloomy notes struck by Katharine Hepburn and Martin Heidegger, the future can be bright—but it will take work and foresight to prepare the way.

IMPLICATIONS FOR THE BRETTON WOODS INSTITUTIONS

The Bretton Woods institutions have played a central role in maintaining an open and competitive world economic order and promoting economic prosperity and peace for over 70 years. Hundreds of millions of people have been lifted out of poverty during this period. The Bretton Woods institutions have evolved their roles over the years to reflect new challenges, and this 75th anniversary provides an opportunity to reflect further on how they can help address the most pressing challenges of the 21st century.[13]

While technology is reshaping trade, investment, and development paths, new global challenges have emerged that go beyond the ability of single nations to address. Climate change, epidemics, and migration call out for new global leadership and coordinated responses. As might be expected after 75 years, many more institutions have entered the multilateral system, including regional development banks and other bilateral and plurilateral institutions; more could potentially be done to promote cooperation and coordination among them to maximize their

11 James Manyika, Susan Lund, Marc Singer, Olivia White, and Chris Berry, "Digital Finance for All: Powering Inclusive Growth in Emerging Economies" (McKinsey Global Institute, New York, NY, September 2016).

12 Noshir Kaka, Anu Madgavkar, Alok Kshirsagar, Rajat Gupta, James Manyika, Kushe Bahl, and Shishir Gupta, "Digital India: Technology to Transform a Connected Nation" (McKinsey Global Institute, New York, NY, February 2019).

13 See G20 Eminent Persons Group on Global Financial Governance, *Making the Global Financial System Work for All* (n.p.: G20 EPG, 2018).

impact. At a time of growing income inequality and lack of economic mobility, and as new technologies accelerate workforce transitions, the institutions could play a leading role in providing support and advice to governments seeking to make future growth more inclusive. It is important that nations both harness the productivity potential of automation and artificial intelligence and, at the same time, mitigate social and economic dislocations.

Alongside these new roles and goals, the institutions might consider updating their initial and ongoing mandates to reflect the changing context. For example, financial and advisory services for low-income countries could be expanded to include the need for digital infrastructure, a key enabler for future growth and development. In the digital era, building human capital is more important than ever, through education, vocational training, and health care, as well as tapping the human capital of women. Digital skills will be an essential requirement for the workforce of the future.

At a time when the global economy itself is rebalancing yet becoming ever more interconnected, with continuing growth and influence of emerging economies on the global economy, the Bretton Woods institutions remain of critical importance in ensuring a rules-based, open, and competitive world economic order that will serve us all for the next 75 years.

A photographer snaps a photo of delegates assembled in front of the Mt. Washington Hotel in Bretton Woods, NH.

Source: Bettmann/Getty Images

FUTURE OF THE BRETTON WOODS COMMITTEE

REFLECTIONS ON THE FUTURE OF THE BRETTON WOODS COMMITTEE

RANDY RODGERS
Executive Director, Bretton Woods Committee

Across the essays in this compendium and the wider array of feedback collected through the Bretton Woods@75 engagement channels, some notable themes that consistently rose to the fore are worthy of reflection. And the readership may feel left with a natural set of next questions to consider; namely, where to go from here? What is the next chapter for the global, rules-based system and for the Bretton Woods institutions? For the Bretton Woods Committee?

This chapter does not pretend to aim at such lofty heights as to definitively answer these questions. It was never intended that the Bretton Woods@75 initiative would produce a road map for the international financial institutions (IFIs), or even for the Bretton Woods Committee itself. Compendium authors were asked to share their forward-looking perspectives on the system, IFIs, and key issue areas—their perspectives remain their own, but many authors shared common views and proposed solutions to these questions in their respective pieces.

Rather, the hope is that the conclusion of the Bretton Woods@75 initiative, is, in effect, a new beginning: a rekindling of the visionary thinking and spirit of multilateralism that changed the world beginning in 1944, whose legacy has continued to reward and reshape the world in irrefutably positive ways since; and an inspirational assortment of ideas that emboldens policymakers, lifts their sights toward the horizon, and invigorates their thinking to accentuate and accelerate reform efforts. As for the Bretton Woods Committee, it is a fresh endorsement

from its members and enthusiasts and an opportunity to reflect, rejuvenate, and reposition the organization to meet its mission for the next generation.

More than any other sentiment, Bretton Woods@75 contributors offer a universal and indispensable message: *protect and strengthen the Bretton Woods mission and accelerate the evolution of the global financial architecture for a rapidly changing world.*

Authors share a wide array of forward-looking ideas about the future of the global, rules-based system, within the context of a commonly referenced backdrop: an increasingly multipolar world in which populist politics and the forces of protectionism and nationalism are on the rise across key countries and regions. Against this backdrop, they postulate that multilateralism may be in the midst of an existential crisis. The spirit of cooperation as established in Bretton Woods appears to have faded, and the risks of system fragmentation are real.

Can this spirit be renewed? The view among contributors is that great effort should be made, and that this is largely a matter of will—will among global public leaders and policymakers to choose collaboration over unilateral action, and to achieve outcomes that support both sovereign interests and common objectives within the international community.

In one form or another, contributors champion the various successes of the Bretton Woods system and the historical ability of its stewards to adapt to an evolving global economy. Criticism, while plentiful, is constructive. Importantly, contributors contend that the fault lines existing today across the open, rules-based economic system have arisen in large part as a byproduct of the great successes the system has afforded to nations and civilization on the whole.

In light of shifting economic landscapes and the forces of change the world is witnessing, various contributors urge evolution of global governance to better reflect the growing economic clout of key countries across Asia, Africa and Latin America, and their rising stakes and responsibilities within the system. And, as the world becomes more interconnected (e.g. global supply chains, communication technology proliferation) yet also more decentralized (e.g. issue complexity, stakeholder proliferation), decision making around future global governance may also need to be more decentralized—driven through networks, partnerships and task forces suitable for the challenge, and perhaps less reliant on institutionalized governance mechanisms.

Specific to institutional reform, contributors posit that all IFIs should focus on how best to serve their respective memberships and promote the ideals that have driven dramatic increases in living standards and economic growth over the decades. They recognize that policymakers seek resilience in the face of global economic fluctuations, as well as help in making their economies more flexible and their labor forces more able to advance their own development.

Authors also urge the institutions to serve as knowledge sources for their members; they need to do more to keep up with innovation and emerging global trends and challenges. IFIs will need to look beyond their walls to gather ideas, experiment, evaluate risk, and collaborate with a richer and more diverse landscape of financiers, donors, thought partners, planners, and implementers than ever before.

Contributors also point out that the private sector has a key role to play in long-term development finance. As several recount, the sums needed for physical and institutional infrastructure are far larger than can be provided by aid donors or international development institutions. IFIs have started using more innovative financing tools to encourage private-sector involvement—but more out-of-the-box thinking (e.g., resource or risk pooling and diversification) is needed to unlock opportunities for development.

The theme of governance in one form or another also permeates the essays. Be it through combating corruption, strengthening legal frameworks and enforcement capabilities, improving fiscal performance, or broadening inclusion—increased transparency is essential for driving standards, efficiencies and accountability. Good governance outcomes need to be visibly promulgated at the highest levels of IFI operations and prioritized throughout country programs.

Across the diverse spectrum of essays, the conclusions are clear: the world needs the Bretton Woods institutions now and for the future. It needs them to be effectual partners to their members, as well as system stewards for the global public good. If we wish to evolve and strengthen the open, rules-based international system to tackle tomorrow's challenges within an increasingly multipolar world, global leaders should rekindle the spirit of Bretton Woods and demonstrate the will and foresight to act in greater coordination and harmonization.

This universal sentiment by contributors in support of protecting and strengthening the Bretton Woods mission, as well as accelerating the evolution of the global financial architecture, lends renewed credence to the mission and mandate of the Bretton Woods Committee. What is a reasonable role and path forward for the Committee, taking into account organizational strengths and limitations and the external forces at work?

Essentially, all aspects of the Bretton Woods@75 initiative, from essays and events to surveys and dialogues, were designed to help catalyze organizational renewal and to offer ample opportunity for Committee members and followers to share feedback on the role and future growth path for the Committee. The positive responses from Bretton Woods@75 contributors offer an encouraging sign that Committee renewal and growth are, in fact, desirable. For those with limited knowledge of the Committee's mission, role, and activities, the following paragraphs provide the requisite context.

The Bretton Woods Committee was created in 1983 at the suggestion of two former US Treasury officials—Secretary Henry Fowler and Deputy Secretary Charls Walker, a Democrat and a Republican—who saw the need for an organized effort to ensure that leading citizens speak about the importance of the IFIs. Headquartered in Washington, DC, and working closely for decades with successive US administrations, the Committee provides ideas and advice to leaders of the Bretton Woods institutions, while also fulfilling an important advocacy role by reminding elected leaders that global economic prosperity and lasting national security are closely tied to continued progress on multilateral issues.

Defining itself as *the nonpartisan network of prominent global citizens that works to demonstrate the value of international economic cooperation and to foster strong, effective Bretton Woods institutions as forces for global well-being*, the Committee strives to attain this mission by establishing itself as a constructive partner and advisor to the IFIs, and as an honest broker of public- and private-sector interests across the reform dialogue. The Committee carries out this role by hosting gatherings (large conferences, seminars and panels, roundtables, virtual conferences, and other public and private events). It offers accessible member engagement channels (e.g., social media, a website, newsletter articles) to promote constructive debate and idea sharing. The Committee also periodically draws together a Legislative Task Force of US-based members interested in educating members of the US Congress or their staff on key IFI issues, at times bringing current or former IFI representatives or policy makers into the discussion.

Throughout its existence, the Committee has deliberately maintained a small, informal leadership structure and a lean-resourced organizational secretariat. Leadership has consisted of two or three co-chairs with experience working closely with or within the IFIs and the U.S. government. In the past decade, an Advisory Council was conceived to broaden and diversify input into the Committee's direction. Three-year strategic plans help steer and prioritize these efforts and other core programmatic, operational, and membership activities.

Committee members are leaders at the top of the business, finance, academic, and nonprofit sectors, including many industry CEOs as well as former presidents, cabinet-level officials, policy makers, and lawmakers who share the belief that international economic cooperation is essential and best served through strong and effective IFIs. Membership count has fluctuated over the decades between approximately 500 and 700 members (it currently stands at 675). In the Committee's first decades of existence, its member makeup was nearly entirely American, but through dedicated efforts to diversify the member base over the past decade, the organizational makeup has gradually

become more global (approximately 65 percent American and 35 percent international to date).

The backbone of the Bretton Woods Committee always has been and always will be its membership. Throughout its history, members' experience, ideas, influence, and—most importantly—collective voice have positioned the Committee as a *uniquely* valuable, credible, and nonpartisan thought partner to government and multilateral policy makers charged with a mandate to oversee or reform the IFIs. Almost every World Bank president and International Monetary Fund (IMF) managing director has sought the Committee's counsel upon taking the helm of their respective institution.

As the World Bank Group, the IMF, and to a lesser extent, the institutionally younger World Trade Organization (WTO) have, time and again, weathered public debates over institutional relevance and sought to reshape their priorities and tool kits to address the needs of their constituents, IFI leaders and US administrations have leaned on the Committee to be advisor, honest broker, advocate, and constructive critic rolled into one.

For example, the Committee has offered counsel during IFI policy deliberations on debt sustainability and IMF crisis lending, crisis prevention tool kits, private-sector lending facilities, and major initiatives—from poverty alleviation for heavily-indebted poor countries (aka the HIPC initiative) to today's more broadly focused Sustainable Development Goals. On the legislative front, the Committee has played an active role in educating the U.S. Congress over a multitude of IFI reform debates, including multilateral development bank (MDB) replenishments (think International Development Association and International Finance Corporation), governance (think IMF quota reform), and other significant institutional debates, such as resolutions proposing US withdrawal from the WTO.

Looking forward—and perhaps more broadly across the plurality of institutions that now convey the Bretton Woods values, such as the regional MDBs—there is good reason to believe this role for the Committee will continue to be needed. It is a safe assumption that in an increasingly multipolar world, the Committee's mission should be more widely known, and its voice should be more widely heard in the debates and dialogues occurring today and tomorrow around the globe.

But "should be" and "will be" are by no means synonymous, and past achievements offer no assurance of future success. So, for the Committee, this moment is an inflection point—one of great challenge but unlimited opportunity—to begin repurposing, resourcing and renewing itself in a manner that will enable it to achieve its mission for tomorrow's world. This will entail embarking on a growth path that adequately balances membership needs with its organizational mandate and resources.

A broad reassessment of the Committee's mission, scope, and future role(s) appears justifiable, given the significant changes occurring across the external landscape and the ongoing diversification of the membership. The culmination of the Bretton Woods@75 initiative offers an optimal opportunity through which leadership and a subset of membership could begin to drive this effort. Such a move could occur in a due diligence phase through 2020 while other areas of renewal and investment (operational, programming, membership/leadership) are simultaneously reevaluated.

For example, to what degree should the Bretton Woods Committee expand its voice and "coverage" to new regional development institutions (e.g., the Asian Infrastructure Investment Bank, the New Development Bank), governance forums (e.g., the G20), supervisory boards and bodies (e.g., the Financial Stability Board, the Basel Committee on Banking Supervision), or other networks? Today's increasingly decentralized economic landscape has multiple centers of gravitational pull. It would be worth considering which institutions should be core and which should be peripheral to the Committee's scope within the future multilateral ecosystem.

From an issue area standpoint, the agendas for multilateral organizations are far richer and more complex than ever before, which prompts the question of to what degree Committee partnerships, programming, and advocacy should reflect this broader agenda. The Committee's fundamental concerns around international monetary system components, financial stability, growth, poverty reduction, and fighting protectionism and commercial discrimination remain in place, but other topics requiring collaborative and multi-faceted problem solving may invite comparable focus, from the environment and migration to technology and equality.

If any expansion of institutional coverage or issue area is warranted, such a move merits wider introspection not only of the Committee's mission and role, but of the Committee's operating model.

One of the Committee's strengths is its exceptional convening power. A worthwhile question to consider is whether this power is underutilized, and if so, what is possible or desirable? The existing forums provided by the Committee, many of which occur in regular conjunction with the semi-annual and annual IMF/World Bank Group meetings, already bring together movers and shakers across the global economic community to discuss topical issues. Is the Committee uniquely positioned to do more than convene, advise, advocate and critique? Could the Committee further leverage the expertise of its members and its nonpartisan credibility to navigate cross-institution or cross-actor conversations, and help facilitate paths of collective action that could bring greater cohesion and coordination to the system as a whole?

The answer is a qualified yes. This role beyond "convener"—as "integrator"—is well beyond the Committee's immediate mandate and capacity without charge from across the multilateral community. But it certainly could be possible.

A fitting ending for this Bretton Woods@75 Compendium—and the global dialogue that the Committee has convened—is a restatement of where this publication begins—with a call to action from Bretton Woods Committee Chair Emeritus, Paul Volcker:

Let's keep the spirit of Bretton Woods alive as we rethink the specific requirements of the new world.…

Mission impossible?

… Maybe a grand new conference to reach conclusions and enforce reform is beyond any present possibility. But surely a study and debate of new approaches is much in order. That is where the Bretton Woods Committee can help lead the way in new thinking for the 21st century.

The Bretton Woods Committee is the nonpartisan network of prominent global citizens that works to demonstrate the value of international economic cooperation and to foster strong, effective Bretton Woods institutions as forces for global well-being.

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Committee members are leaders at the top of the business, finance, academic, and non-profit sectors, including many industry CEOs, as well as former presidents, cabinet-level officials, and lawmakers, who share the belief that international economic cooperation is essential and best served through strong and effective IFIs. Through the Committee, they champion global efforts to spur economic growth, alleviate poverty, and improve financial stability.

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