Lessons from the Global Economic and Financial Crisis

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My most recent visit to Seoul was in December of last year. The global economy faced its most serious threat since the Great Depression. For many countries, the threat was larger than the one eight decades ago. Fortunately, the contours of international economic and financial cooperation were better this time. We have been through a serious crisis, but authorities around the world have acted cooperatively and forcefully to address common problems in an unprecedented manner.

The challenge today is to sustain that cooperation and to learn and apply the lessons of the crisis. Over the next year, the government of the Republic of Korea, as host to the G-20 ministers, governors, and leaders, and the International Monetary Fund, as the premier institution of international monetary cooperation, will play crucial roles in shaping answers to that challenge. I am delighted to appear with José Viñals to assist via my participation in this conference.

It is an axiom of sound macroeconomic policymaking and analysis that policy should not be guided by looking in the rearview window. On the other hand, it is also essential to draw the right lessons from the past to inform future policies. Unfortunately, agreeing upon those lessons is easier said than done because there is, at best, a limited consensus on the causes of the economic and financial crisis of 2007–09. There is no paucity of candidates. Many of them are plausible, and any reasonable narrative would include more than one causal factor. However, we lack sufficient information to discriminate among the many different narratives and to assign weights to their component parts. Thus, we are hampered in our discourse by the absence of a shared diagnosis of the origins of the crisis.

In my remarks this morning, I will first provide my own perspective on the factors contributing to the crisis. I will then turn my attention to two major issues in financial regulatory reform: construction of a framework of robust macroprudential policies and establishment of an approach to financial institutions that are too big to fail.

On the first, I argue that the framework for macroprudential policies should include equal parts of improved policies of supervision and regulation as they impact the performance of the macroeconomy and of improved macroeconomic policies as they impact the financial system. At present, the discussion is too

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* In drafting these remarks, I have benefitted from comments from my former colleagues Edward Ettin and Larry Promisel and my current colleagues Morris Goldstein and Steve Weisman. However, none of them should be held responsible for the views expressed.
skewed toward prudential policies and their macroeconomic effects and away from macroeconomic policies and their effects on the prudential environment.

On the second, I argue that the too-big-to-fail problem is not amenable to a single silver-bullet solution. In the United States and other countries, we need a combination of approaches involving concern for the size of institutions, regulatory limitations on certain activities of financial institutions, expansion of the perimeter of supervision, and an effective resolution mechanism for all systemically important financial institutions.

On both of these global issues, cooperation and mutual understanding are essential to achieving significant progress—even if in different jurisdictions differences of emphasis remain.

Causes of the Crisis

The candidate causes of the economic and financial crisis of 2007–09 fall into four broad categories: (1) macroeconomic failures, which have three subcategories: monetary and fiscal policies, global imbalances, and housing booms; (2) failures of financial-sector supervision and regulatory policies and practices, which have innumerable subcategories; (3) excesses of poorly understood innovations in financial engineering, which have several subcategories: subprime mortgages, credit default swaps, and new forms of securitization to name a few; (4) excesses, or imprudence, on the part of large private financial institutions, in particular those with a global reach.

What consensus there is now on the causes of the crisis emphasizes the second category (failures of financial-sector supervision and regulation) and to a lesser extent on the third category (financial engineering gone bad). In my narrative, I lean against the wind of this early consensus and give more weight to macroeconomic policy failures in the United States and similarly situated countries.

In the United States, fiscal policy contributed to a decline in the US saving rate, and monetary policy was too easy for too long. In Japan the mix of monetary and fiscal policies distorted the global economy and financial system. Thus, monetary policy in Japan also was too easy for too long. Many other countries had very easy monetary policies, including other Asian countries, energy and commodity exporters, the United Kingdom, Switzerland, and—in terms of real interest rates—a number of countries within the euro area.

The policies of many countries, including Korea, resulted in the accumulation of impressive amounts of foreign exchange reserves. Those policies contributed to the emergence of global imbalances and distorted the international adjustment process. The recycled reserves took some pressure off of the macroeconomic policies in the United States and other countries. However, the phenomenon of global imbalances did not, in my view, play a significant role in causing the recent economic and financial crisis. Instead, the imbalances and the crisis were jointly caused by flaws in the design and implementation of macroeconomic policies around the world and by the resulting global credit boom. The expansion of credit, some would say leverage, fueled housing booms in the United States and elsewhere as well as increases in the prices of equities and many other manifestations of financial excess.

Financial-sector supervision and regulation, or the lack thereof, did play a role in the crisis. But the sins of omission and commission were committed over several decades, not primarily during the past
10 years. Moreover, without the benign economic and financial conditions that prevailed in the wake of the dot-com boom, and the associated belief that “this time it is different,” the crisis would have taken a different form. Benign conditions lead to lax lending and credit standards, just as the night follows the day. In principle, financial-sector supervision could have helped to curb the excesses, but it did not do so in the United States or in many other countries.

New forms of financial engineering were part of the story, but innovations have been a feature of domestic and international finance for decades. In many cases, the associated innovations were poorly understood, resulting in a failure of risk recognition, which is a necessary precondition for good risk management. Financial engineering helped to distort incentives facing financial institutions and contributed to the market dynamics that intensified the crisis once it was underway, but financial innovation did not cause the crisis.

Finally, the large private financial institutions, in particular those with a global reach, deserve special mention. They were the center of the financial crisis, and many of them failed de facto if not de jure. However, the institutions did not fail because they had multiple national supervisors and thereby escaped appropriate supervision. Size was a problem, and along with complexity led to some decisions to rescue particular institutions in whole or in part, but the global scope of the operations of these institutions was not a major contributing factor to the crisis per se. Each individual case was different, but in general the institutions became overextended. Their management was lulled into the belief that benign economic and financial conditions would continue forever, or at least until they could cover their positions. A large number of them were wrong.

Thus, the two major categories of causes of the global financial crisis of 2007–09 were failures in macroeconomic policies and in financial supervision and regulation. The former category has received insufficient attention. However, this assessment is not inconsistent with the view that there were structural flaws in national and global financial regulatory and supervisory systems that should be corrected. Those flaws had been building for years and now should be addressed. It may well be that a crisis of this magnitude was necessary to uncover those flaws. History suggests that is normally the case.

You now have my narrative. You may or may not agree with it, but at least you know my point of departure. In the remainder of my remarks, I will discuss two of the many issues that have surfaced in this crisis and are relevant to the G-20 financial regulatory reform agenda: the design of appropriate macroprudential policies and the too-big-to-fail problem. Both topics are important. My concern is that the collective authorities, as well as those of us on the sidelines offering free advice, may not be framing these issues correctly.

Macroprudential Policies

For many, the term “macroprudential policies” is the new catchphrase spawned by the crisis. In my view, there is no consensus about the meaning of that phrase. As a result, the revised prudential framework under construction may well be flawed.

I define macroprudential policies as, first, policies affecting financial institutions and the financial system that have implications for the macroeconomy and as, second, policies affecting the macroeconomy that have implications for financial institutions and the financial system. This is my definition, and as far
as I can determine there is no commonly accepted definition of macroprudential policies. However, most definitions I have seen emphasize the link between supervisory policies and their effects on the macroeconomy and leave out the reciprocal relationship.\(^1\)

Consistent with the alternative, dominant narrative of the causes of the crisis, which stresses failures of financial sector supervision and regulation, most of the current discussion of macroprudential policies does not emphasize the two-way interaction of macroprudential policies. Instead, the focus is on the identification of systemic risks in the financial system itself under the heading of macroprudential regulation, or supervision and regulation.

Those risks are of two types: (1) large financial institutions whose activities, or the cessation of whose activities, could endanger the stability of the financial system; or (2) the activities of financial institutions that in combination could endanger the stability of the financial system. Those two types of systemic risk may, in turn, endanger the stability of the macroeconomy though this is not always the case. Thus, the causation may go from financial institutions and the financial system to the jobs, growth, and prosperity. But the reciprocal role of macroeconomic policies in impacting financial institutions is largely ignored. My point is not to deny the former causation. However, consistent with my preferred narrative about the global economic and financial crisis, I believe that the causation runs both ways.\(^2\)

What do I have in mind when I speak of macroeconomic policies? At the level of national economies, one example of macroprudential policies running from macroeconomic policies to the financial system is the debate about asset price bubbles. This example nicely illustrates some of the underlying analytical and philosophical issues.

Monetary policy purists argue that monetary policy should be focused narrowly on the stability of prices of goods and services and, thereby, maximize growth and employment over time. They argue that central bankers cannot easily identify asset price bubbles except after the fact and that even if they could identify bubbles, the use of interest rate policies to prick such bubbles would do more harm than good, distracting their attention from price stability. (They also argue that with one instrument—a policy interest rate—a central bank can achieve only one objective. However, in economic policy there are always more objectives than independent instruments. Policy is about tradeoffs.)

In light of developments during the past decade, the monetary policy purists now somewhat defensively advocate the use of other instruments, in particular supervisory and regulatory instruments, to influence the behavior of financial institutions and markets so that markets are less likely to produce asset price bubbles and contribute to other systemic risks. I say “somewhat defensively” because most, but not

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\(^1\) The term macroprudential policies can be traced to the establishment in 1971 of the Eurocurrency Standing Committee of central bank representatives at the Bank for International Settlements. It is now called the Committee on the Global Financial System. Its updated mandate was approved by the G-10 central bank governors in February 1999. That mandate includes among its three objectives: “To seek to identify and assess potential sources of stress in the global financial environment through a regular and systematic monitoring of developments in financial markets and systems, including through an evaluation of macroeconomic developments.” (Emphasis added.) The full mandate is available at www.bis.org.

\(^2\) As Tobias Adrian and Hyun Song Shin put it in the last line of their recent paper on the crisis, “Monetary policy and policies toward financial stability are therefore two sides of the same coin.” Financial Intermediaries, Financial Stability, and Monetary Policy, paper delivered at the 2009 Federal Reserve Bank of Kansas City Conference at Jackson Hole. Available at www.kansascityfed.org.
all, of the proposed new instruments implicitly accept the view that asset price bubbles can be identified or that there are similar market phenomena that are deserving of supervisory attention at the macro level. There are some exceptions, such as counter-cyclical provisioning, but that is largely an untested policy instrument. Do not get me wrong, I favor using all instruments that are effective, but I include monetary policy among them.

The debate about the identification and pricking of asset price bubbles as a source of systemic risk largely misses the point. Focusing on bubbles allows people to argue whether bubbles exist and can be identified ex ante. My central point is that monetary policy, indexed by a short-term policy interest rate, may fuel a process that generates a credit boom. We do not necessarily know whether such a credit boom will manifest itself in a bubble somewhere, but we do know that credit booms occur and that their adverse consequences for the real economy can be severe when they bust. My view is not novel. William White has been preaching it for years. The staff the International Monetary Fund addressed the issue in its latest World Economic Outlook.

The objective is to limit the procyclicality of monetary policy on the upside. The challenge is to come up with indicators to help guide monetary policy in leaning against the wind of credit booms while not insisting that central banks identify in advance where the booms might manifest themselves in the economy and financial system.

In this context, consider a second example taken primarily from the domestic economic policy context. During the recent boom, central bankers from time to time expressed concerns about the underpricing of risk. However, they generally did not draw, or at least act upon, the obvious, relevant inference: the underpricing of risk has something to do with the level of, and expectations about, the policy interest rate.

It is true that we do not have robust empirical applications of theories of the term structure of interest rates or credit risk premiums. However, we do observe that increases in policy interest rates normally raise both term premiums and risk premiums. Of course, this link does not hold in all circumstances, and the relationships are complex, multidimensional, and imprecise. (Some of the analytical issues involved are connected with debates about the role of global imbalances in fueling the global economic and financial crisis. For example, did the large US current account deficit that was easily financed, though with a declining dollar, abnormally depress US long-term interest rates when the Federal Reserve was raising the federal funds rate? My answer is no.) I do not mean to suggest that the economics profession has all the answers to these questions. I do mean to suggest that the consideration of such

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3 This view of the role of monetary policy is associated with Claudio Borio and his colleagues at the Bank for International Settlement, among others. See Claudio Borio. 2009. Implementing the Macroprudential Approach to Financial Regulation and Supervision. Banque de France Financial Stability Review. September. Available at www.banque-france.fr. See also other papers at www.bis.org. Those papers include The Systemic Importance of Financial Institutions, which argues that large institutions generate more than proportional systemic risks. It is relevant to my second topic of Too Big to Fail (TBTF).


metrics could increase our understanding of monetary policy and its potential effects on the stability of the financial system.

These issues are important not only for national economic policymakers and their citizens, but also at the global level. The pricing of risk, which includes country risk and sovereign risk, is relevant at the global level. The ready availability of credit also has an international dimension. For example, in the wake of this global economic and financial crisis, we again hear about the “addiction to foreign finance” by private and official borrowers. This addiction, it is argued, leads to an increase in foreign borrowing without regard to the macroeconomic implications for the borrowing country, including effects on domestic interest rates, exchange rates, other asset prices, and the aggregate flow of credit to the economy.

These debates, at the global level, have revived attention to capital account issues, in general, and about the use and effectiveness of policy tools to limit some or all capital flows, in particular. This is a manifestation of macroprudential policies running from macroeconomic policies to the financial system and back again.

More broadly, the macro in macroprudential policies involves not just the behavior of national economies but also the overall performance of the global economy. In the period before the outbreak of the crisis in the summer of 2007, and for some months thereafter, the performance of the global economy was “too good to be true.” Policymakers in national governments, officials in international institutions, and leaders of private financial institutions knew that they were headed for a bust. They knew that the sweet music would stop, but in the words of Citigroup’s Chuck Prince “as long as the music is playing, you’ve got to get up and dance.”

As a result, there was a collective failure to sound an appropriate macroeconomic alarm, including about the overheating of the world economy. The generally benign conditions continued to fuel an unsustainable boom in private financial markets and in the global economy, including commodity prices. Who is to say that if we had better insights at the macroeconomic level, the ultimate consequences for financial systems and real economies would have been improved, but the consequences could hardly have been worse.

All countries have an interest in getting the framework and content of macroprudential policies right. Special responsibility for doing so lies with the G-20 countries, individually and collectively, and with the international institutions, such as the IMF and the Financial Stability Board. To date, the two-way interdependence of macroeconomic policies and supervisory policies in their effects on the aggregate economy is largely missing from discussions about macroprudential policies. Macro prudential policies are too much about the prudential and its impact on the macro rather than the macro and its impact on the prudential. This disconnect should be rectified. It is central to the case for central banks to have a major role in both aspects of macro-prudential policies.

**Too Big To Fail**

Whether to use public money to rescue financial firms because they are too big, too complex, or too interconnected to be allowed to fail is not a new issue. However, in the financial and economic crisis of the last year and a half, the number and nature of such rescues in sophisticated financial markets and systems
has dramatically increased the salience of the issue. It is summarized by the initials “TBTF,” or “too big to fail.” Precedents have been set. There is an understandable desire to limit the application of those precedents.

TBTF is not peculiarly a US issue. TBTF is a global issue as I will try to explain in a moment. First, however, I will consider the TBTF debate in the United States. The US Congress is considering remedies to impose limits on TBTF for the future. Each remedy comes with costs or with problems. No silver bullet will solve this problem. A combination of steps will be required.

The TBTF issue in the US context is, first, a political issue. Citizens and their representatives see as unfair the “bailouts,” or rescues, of large financial institutions using financial resources that ultimately are provided by the taxpayers. They see Wall Street being bailed out by Main Street.

Taxpayers see little or no benefit to them of the rescues. For better or worse, they do not appreciate the adverse implications of financial market problems for the real economy. It is not enough that most shareholders of troubled institutions lose their stakes, many well-paid employees are laid off, and senior managers are fired. The wrongdoers should feel more pain. Whether taxpayers have assessed the net benefits correctly is beside the point. (This attitude on the part of US taxpayers is similar to US taxpayer attitudes, for example, toward the assistance that was provided to the Korean government in 1997–98 to help it meet its obligations to domestic and foreign banks.)

Certainly, going forward, the status quo prior to the crisis is not a viable option not only because of taxpayer revolt but also because of moral hazard considerations that were highlighted and exacerbated by government actions in the crisis. The impacts on the behavior of institutions that are not allowed to fail, or the behavior of their management, are more important than the issue of the cost of bailouts and who bears those costs. Size is just one ingredient in this calculus; the more important ingredient is the lack of the potential to fail. Moral hazard surely will affect behavior in the future even if it did not do so in the past.

If governments are expected to protect private institutions from failure, market discipline will be undermined along with what Schumpeter referred to as the desirable process of creative destruction. Competition is distorted. Capital is misallocated. Poor risk management or, if you like, the taking of excessive risk is rewarded. Losses are socialized. This is where the taxpayers come in, but those losses are only part of the equation. Implicitly or explicitly, governments are injected into the management of financial institutions. This changes the rules of the game. One result is a more concentrated structure of financial entities, more prone to take excessive risk and with little evidence of societal benefits, such as increased efficiency, lower costs, or greater availability of credit.

In the United States, remedies for the TBTF problem fall into four categories of proposals: (1) break up the systemically important institutions so that individually they are not too big and the consequences of any failure are eliminated; (2) separate riskier activities into unrelated institutions whose failure will not have the same direct adverse consequences for the economy and the financial system; (3) employ a combination of regulatory modifications that either discourage excessive risk-taking or establish cushions against its consequences; and (4) establish a special resolution mechanism so that the failure of systemically important financial institutions can be managed to minimize the damage to the financial system and economy without the need for a governmental rescue.
Each of these remedies has its merits and supporters, but also its problems and detractors.

The problems with the first category of remedies—the breakup approach—are several. This approach involves more than downsizing institutions by reducing their workforces and selling some of their businesses, as is being done in many countries with and without the encouragement of governments. This approach fully applied involves breaking up institutions into unique entities with their own shareholders and managements and capping their absolute size. We do not know enough to say how small is small, however, or which individual institutions could fail without adverse systemic consequences, in part, because those consequences depend on the circumstances at the time.

Moreover, if one large institution is broken up into, say, 5 or 25 smaller institutions, one can ask if the system really would be better off. If each of the smaller institutions follows the same or very similar investment strategies, known as herding, and has similar risk management policies, they may all experience similar stresses and losses. (Recall, in my discussion of macroprudential policies, the prudential case for aggregating similar risks in individual institutions.) The systemic effects of letting all similarly situated institutions fail could be nearly the same as the systemic effects of letting the one large institution fail. It is possible that institutions would not herd or that their smaller reduced size would limit some scope for excessive risk taking, but that is a conjecture—not an established fact.

The empirical evidence on the economies of scale and scope in very large financial institutions is at best ambiguous. However, even if there are no economies of scale in the behemoth size range, which I am willing to believe, we also know that today 4 of the 10 largest global financial institutions by market capitalization are chartered in China. These government-owned institutions are by their construction TBTF. Unless their size and status is altered, they would be in a position to distort global competition even if they and their home country do not benefit from economies of scale and scope. One of the major global economic problems with TBTF would remain.

My conclusion is that the break-up approach to TBTF does not have much to recommend it. Many large institutions probably should be encouraged to shrink, but the economic case for breaking them up is not sufficiently strong to overcome the opposing political and practical realities.

The problems with the second category of remedies—separating out riskier activities—are also several. Which activities are too risky? There is no consensus. Should the list of such activities be fixed for all time? Almost certainly, it should not be. In any case, what about institutions outside the perimeter of supervision which are, or become, large and interconnected? By ignoring them, we are merely relocating the TBTF problem and potentially making it worse, at least for the taxpayers, because what in effect may be institutional cross-subsidies in universal banks no longer would be available. One answer is to extend the perimeter of regulation and supervision in order to deal with regulatory arbitrage, the phenomenon of institutions seeking out the least onerous regulator. This answer brings us back to where we started.

My conclusion is that the separation approach to TBTF is an incomplete answer. On the other hand, regulatory modifications, such as capital charges on larger institutions based in part on the nature of their lines of business, and perhaps their size, should be used to rebalance incentives within large institutions away from an excessive concentration on riskier activities.

The problems with the third category of remedies—enhanced supervision and regulation—are again multiple. One example is the technical problem of designing retooled capital structures. Basel II, the
revised set of international banking regulations promulgated in 2004, was more than a decade in the making and has not yet been implemented in all jurisdictions, including the United States. Before Basel II can be fully implemented in all jurisdictions with any confidence, it must be substantially altered or augmented.

A second problem lies in ambiguities about the enforcement of regulations. What makes one so sure that this time it will be different? What is the right balance between rules established in advance and discretion left up to the regulators or supervisors? Can any enhanced regime of supervision and regulation effectively contain the economic, financial, and political costs of moral hazard and eliminate the TBTF problem?

My conclusion is that the regulatory approach to TBTF is more promising than the first two approaches, but the technical problems are substantial. Those problems are compounded by political resistance from the institutions to be regulated, at least in part because of curbs on their future activities that potentially would make them less profitable. Thus, whatever the merits of the first three approaches, large systemically important financial institutions are likely to be here to stay. In any future US regulatory regime, those institutions are likely to face failure, again posing an unattractive choice between an expensive rescue and a disruptive bankruptcy unless other alternatives are present.

Despite the likelihood of future failures of large systemically important financial institutions and the unattractive policy choices under the status quo, skepticism and controversy surround proposals in the United States to establish a special resolution mechanism for such institutions in the event of their potential failure. Some argue that such a mechanism merely would reinforce the notion that certain institutions are too big to fail. In other words, it sends the wrong signal and would exacerbate the basic problem of moral hazard. Others argue that such a mechanism would enhance market discipline while at the same time recognizing the reality that circumstances surrounding potential failures will differ, including the macroeconomic contexts in which the failures occur.6

My conclusion is that a special resolution mechanism for large financial institutions is a necessary complement to any other approach to the TBTF problem, but is not a complete solution by itself.

Thus, all four proposed remedies to the TBTF problem in the United States have merits but also raise concerns. There is no silver bullet. It is preferable to craft a multi-faceted approach.

I favor an approach that involves: (1) somewhat more concern for the size of institutions; (2) regulations or limits on certain activities in institutions (but stopping well short of an arbitrary, permanent separation of activities); (3) an expansion of the perimeter of supervision along with other regulatory remedies; and (4) a new resolution mechanism for all systemically important financial institutions. Such a combination is likely to serve the United States reasonably well for a few decades; the regulated and the regulators will be more alert and cautious, aided in their caution by an improved alignment of compensation incentives.

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6 See Rodgin Cohen and Morris Goldstein. 2009. The Case for an Orderly Resolution Regime for Systemically Important Financial Institutions. The Pew Financial Reform Task Force Briefing Paper 13. They argue cogently that such a regime will not increase moral hazard and that it is superior to the approach of amending the existing corporate bankruptcy code in the United States.
Lest these views are dismissed as Panglossian, I must add a caveat: large US financial institutions, even now, are strongly arguing their case with the US Congress for minimal changes from the status quo before the crisis. Consequently, it is less than fully clear how significant and comprehensive US financial reforms will be. Nevertheless, I am optimistic.

This conference is about G-20 financial regulatory reform initiatives. Therefore it is appropriate, as with my discussion of macroprudential policies, to consider of the TBTF issue in a global perspective.

Does what the United States decides about TBTF matter to the rest of the world? History and analysis would suggest that it does. Throughout the world, the decision to allow Lehman Brothers to fail last year is regarded as the biggest mistake that the US authorities made over the 2007–09 period. (I do not share that view, but that is a topic for another discussion.) The US challenge going forward is to limit the potential need to rescue large, systemically important financial institutions while minimizing the adverse consequences for the financial system, the economy, and the taxpayers if and when such a need occurs.

The US challenge is also a challenge for the rest of the world. We lack a global resolution authority even as we lack global consensus on the other three categories of remedies for the TBTF problem. Recall, for example, the demises of the Bank of Credit and Commerce International (BCCI) in 1991 and Barings Bank in 1995. The activities of BCCI were spread around the world, and Barings was brought down by a single trader in Singapore. What would have been the consequences for the global financial system and economy if those events had unfolded in late 2008 or early 2009?

Finally, the problems posed by institutions that are too big to fail are closely linked to the issue of financial institutions that are too big for the country in which they are chartered to rescue alone. These problems are also associated with issues of the appropriate division between home and host supervision. None of these issues are easy.

The G-20 and the international financial community have their work cut out for them over the next year or so. The objective should not be to achieve ideal solutions in the areas that I have discussed but to promote solutions that are as mutually compatible and robust as possible from a global perspective. This conference can help to clarify some of the many complicated issues. I hope that my remarks this morning make a marginal contribution to this important process.

Thank you.