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A Road Map to "Progress and Confusion"

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On April 15–16, 2015, the IMF organized the third "Rethinking Macro Policy" conference. Held every two years since 2011, these conferences have brought together academics and policymakers to assess how the global financial crisis and its aftermath should change our views of macroeconomic policy. This time around, the focus was on the contours of policy in the future, once the global financial crisis is finally over. Will the macro framework look like the precrisis consensus, or will it be different? Have we made progress on this question, or does confusion remain?

The twenty-seven chapters in this book reflect the discussions that took place at the conference, covering many dimensions of macro policy. The chapters are organized into seven topics: the "new normal," financial regulation, macroprudential policies, monetary policy, fiscal policy, capital flows and exchange rate management, and the international monetary system. Given the breadth of issues, we thought we needed to provide a road map to guide the reader. For each topic we present a list of questions, then provide a summary of each chapter and where it fits within the broader policy debate. Not all of the questions are addressed in this volume, though some of them are discussed in the two previous conference volumes.[1]

The "New Normal"

At the core of the conference is the question of the new normal. Will the macro landscape of the future be similar to the precrisis landscape, one of decent growth and "normal" interest rates? Or are we in for a prolonged period of stagnation, negative real rates, and deflationary pressures, similar to the experience of the last few years?

Two of the book's editors provide opposing views on this issue. On the one hand, *Kenneth Rogoff* argues that we are in the adjustment phase of a "debt supercycle." Following the excessive expansion in credit that led to the global financial crisis, subsequent deleveraging has been a persistent drag on growth. This is typical of a financial crisis. But, he argues, these are not secular trends: as these headwinds subside, we should expect higher growth rates. The United States and the UK have already reached the end of the deleveraging cycle, while the euro zone is in the thick of it and China is starting to face challenges from the debt buildup of recent years. As for real interest rates, Rogoff makes the case that low *safe* rates mask much tighter financial conditions for many households and firms. As deleveraging comes to an end and financial conditions soften, safe real rates should again increase.

On the other hand, *Lawrence H. Summers* elaborates on his secular stagnation hypothesis, which he first put forward at an IMF conference in 2013.[2] He argues that events since then—lower yields, sluggish growth, and below-target inflation—provide further confirmation of the chronic excess of savings over investment, which he acknowledges is more global in nature than he originally thought. In this context, keeping the economy at potential may well require low or even negative real interest rates for the foreseeable future, with worrisome implications. Aggregate demand management may become harder as central banks become increasingly constrained by the zero lower bound. In addition, the risks to financial instability are likely to increase, as low or negative equilibrium real interest rates encourage bubbles and a greater search for yield. These concerns permeate many of the discussions throughout this book.

The two views have very different policy implications. For example, the secular stagnation view calls for boosting investment—including investment in public infrastructure—to raise aggregate demand and equilibrium real interest rates. Rogoff's view, on the other hand, that low safe rates mask tight financial conditions, suggests that greater public borrowing may end up crowding out the private sector even further.

What to make of these competing arguments? Much of it hinges on how to interpret movements in interest rates. Recent IMF work provides a somewhat nuanced view.[3] Debt overhang and deleveraging, and other cyclical factors, have played a role, which implies rates should increase as these factors subside. But the decrease in real rates does appear to be

secular (and global): it started well before the global financial crisis and is therefore unlikely to disappear once the crisis is over. So we may continue to see low real rates, though not necessarily negative, for the foreseeable future.

Systemic Risk and Financial Regulation

The global financial crisis resulted from the interaction of excessive leverage in the financial system and the related interconnectedness and complexity of the balance sheets of banks and nonbanks. In other words, the crisis revealed the existence of large and previously undetected systemic risk. Since then, there have been efforts to better understand and measure the many dimensions of systemic risk. But where do we stand on these? Are some aspects easier to measure than others, such as leverage in the financial system versus risks from shadow banking, or solvency risks versus liquidity risks?

In addition, regulatory reforms have been pervasive, as the Dodd-Frank Act, the UK Vickers Commission, the work of the Financial Stability Board, and similar efforts attest. Are reforms succeeding in reducing systemic risk? Do they have unintended effects? More generally, do the ever-changing financial landscape and the incentives for the system to remain excessively leveraged imply regulatory reform is hopeless?

In his introduction to this part of the volume, *Paul A. Volcker* summarizes its two main themes: the importance of avoiding excessive leverage in the financial system, and the need to expand the regulatory framework beyond banks.

Viral V. Acharya's chapter shows there has been progress in measuring systemic risk, at least in banking. He presents a measure developed at NYU's Volatility Institute, called SRISK, and uses it to assess progress with regulatory reform. This measure provides a market-based estimate of banks' capital shortfalls during episodes of aggregate stress. By comparing a firm's leftover equity in the event of a hypothetical market collapse with the level implied by a capital ratio considered "prudent," and aggregating across all listed financial firms, SRISK provides a quantitative, time-varying indicator of financial fragility.

With the help of such a measure, Acharya paints a mixed picture of regulatory reform across the world. He sees considerable improvements

in US banks since the crisis, thanks to capital injections and measures put in place following passage of the Dodd-Frank Act, including stress testing of systemically important financial institutions. But systemic risk in Europe remains more than twice as large as it was before the crisis, which Acharya argues is the result of insufficient recapitalization and ineffective stress tests (with an excessive focus on risk-weighted capital ratios instead of direct leverage). He also detects a large increase in systemic risk in Asia, especially China, following the massive increase in debt and leverage of recent years.

Anat R. Admati is pessimistic. She argues that the failure of financial regulation made evident during the global financial crisis has not been addressed. Conflicts of interest between creditors and shareholders can lead to excessive leverage, what Admati calls the "leverage ratchet effect." This effect is particularly acute in banking because of the implicit guarantees regarding debt and the expectation of support from central banks and governments, which weakens creditor discipline. Capital regulations should correct these distortions. But they still allow extremely high levels of indebtedness, in part because of the complex system of risk weighting, which distorts investment decisions and increases systemic risk.

For Admati, the solution is clear: *much* higher capital ratios, at least 15 percent of banks' total (non-risk-weighted) assets, are needed. This is much higher than the Basel III minimum (3 percent proposed for testing—final calibration to be determined) or the new ratios set by US agencies (5–6 percent).[4] She also calls for more discussion of measurement issues, such as how to account for derivatives exposures, and argues that debt-like securities (e.g., contingent convertible capital bonds, or CoCos, or nonequity total loss-absorbing capacity instruments), which can in principle be converted into equity, are dominated by equity for the purpose of regulation, because triggering conversions in times of stress will prove exceedingly difficult.

Banks are only part of the picture; nonbanks and markets have been taking an increasing role in financial intermediation.[5] In this context, *Philipp Hildebrand* looks at liquidity risks in financial markets and the role of asset managers. Recent episodes of asset-price swings and widened bid-ask spreads have raised the issue of whether stricter regulation, by reducing banks' market-making role, has created systemic liquidity risk. Hildebrand is skeptical of the argument, arguing instead that there has

long been a "liquidity illusion" and that all financial market participants need to adapt to deal with liquidity risks. He also argues that asset management companies are not themselves a source of systemic risk, as they have small balance sheets and are not leveraged, though some of their products may expose investors to illiquidity risks. He supports stress testing of investment funds.

Robert E. Rubin argues that market-based financial systems will inevitably experience episodes of booms and busts, even if regulation can reduce their likelihood and severity. In the current environment, he sees significant potential for systemic risk in the shadow banking world, which has grown rapidly in recent years yet is still not well understood. He calls for greater efforts toward cataloguing the asset classes, organizations, and activities involved and toward developing the right set of regulatory tools.

Macroprudential Policies

Macroprudential tools are the new policy kids on the block. A standard example is maximum loan-to-value ratios, which can be adjusted depending on the state of the housing market. In principle, these tools can target the many dimensions of financial risk, allowing fiscal and monetary policy to deal with their traditional mandates. But do macroprudential policies work? Why not just set tighter, non-time-varying, regulatory requirements? And how should macroprudential policies and monetary policy be combined? Also, these policies can have important distributional effects. How do we deal with their political economy implications?

Paul Tucker takes a view focused directly on the stability of the financial system. He defines a macroprudential regime as one in which regulatory parameters are adjusted dynamically to maintain a desired degree of resilience in the financial system. He emphasizes resilience (inversely related to the frequency with which crises occur) rather than fine-tuning the credit cycle, arguing that the latter is too ambitious and risks missing what is essential. Implicit in the framework is the idea that the base regulatory regime—around which the parameters are adjusted—is not designed for the "exuberant" states of the world and therefore, on its own, cannot guarantee financial stability. For Tucker, this is the choice that policymakers have already made, in part because of concerns about

the effect of permanently very tight regulations on the provision of financial services to the economy (as well as regulatory arbitrage).

Tucker lists some desirable features of a macroprudential regime, building in part on similar efforts in the monetary policy debate from previous decades. First, in light of the changing financial landscape, macroprudential policies need to encompass both banks and nonbanks. Second, discretion is inevitable, which implies policymaking must be constrained by a well-defined objective set by democratically elected officials. Third, to the extent possible, policymakers need to avoid making first-order distributional *choices*. Fourth, the process for making macroprudential policies should be as transparent and systematic as possible, with regular stress testing playing an important role. Finally, to the extent that macroprudential policies are housed at the central bank, a separate structure for making decisions can help separate macroprudential from monetary policy and underpin incentives to take both missions seriously.

Whereas Tucker views macroprudential policies as clearly different from monetary policy, *Hyun Song Shin* makes the case that the distinction is not always clear. Both policies affect the demand and the supply of credit, and as a result, there can be some tension in moving macroprudential and monetary policy in opposite directions. In such a scenario, households and firms are being told to "simultaneously borrow more and borrow less." Shin argues that monetary policy is increasingly constrained by global financial conditions, especially in emerging market economies (EMEs). Macroprudential policies are not so constrained, and may therefore play an important role in the macro framework. He cautions, however, that their effectiveness may be limited by the changing financial landscape.

Lars E. O. Svensson tackles the question of the relative roles of monetary and macroprudential policies from a different angle. He applies a quantitative cost-benefit analysis to Sweden to assess whether monetary policy should target financial stability. Svensson finds that the benefits of moderate increases in interest rates for financial stability (in terms of reducing the likelihood and severity of a crisis) are very small and are overwhelmed by the much larger costs in terms of increased unemployment. He concludes that monetary policy is not the right tool to deal with financial stability and that macroprudential policies are much better suited to this task.

Monetary Policy in the Future

The global financial crisis and the zero lower bound on interest rates forced central banks to experiment with many new policy tools and approaches, with the central bank balance sheet growing exponentially. The questions going forward are many. How much should we move away from the old inflation-targeting framework? Should we put these new tools back on the shelf? What is the optimal size of the central bank balance sheet, and are there negative externalities from central banks' holding long-term government bonds? And, given the origins of the crisis, how can we better incorporate financial sector issues into the policy framework?

José Viñals provides a comprehensive overview of the key challenges posed to monetary policy by the global financial crisis, focusing on whether monetary policy can sustain financial stability *in addition to* price and output stability or whether this task should rest exclusively or primarily with macroprudential policy. He highlights that effective use of macroprudential policy can make monetary policy work better over the cycle by reducing the likelihood of a zero lower bound constraint on it, owing to the lower likelihood and severity of financial crises. He also elaborates on a number of associated policy challenges: the very fine balancing act that communication on monetary policy has needed to strike between informing the public's expectations of future action and conveying a sense of existing uncertainty about economic prospects, and the difficult trade-offs that monetary policy faces in EMEs and small open economies receiving large capital inflows with a correspondingly elevated risk of a sudden stop.

Two chapters present opposing views of monetary policy in the United States. *Ben Bernanke* offers a strong defense of the current framework. He argues that the Fed's adoption of an explicit inflation target has strengthened the anchoring of inflation expectations and gave the Fed more scope to ease monetary policy during the global recession. For him, a framework focused on targets rather than on instruments is robust to changes in the structure of the economy, and therefore is preferable to following a simple rule for the fed funds rate. The latter would unduly constrain monetary policy. Bernanke is also of the view that unconventional monetary policy tools (large-scale asset purchases and forward guidance)

should eventually go back on the shelf, with the fed funds rate taking center stage again. He does acknowledge, however, a potential role for a larger central bank balance sheet going forward, mainly to provide an elastically supplied safe short-term asset (Fed liabilities).

For *John B. Taylor*, the monetary policy framework has instead been excessively discretionary, going back to the early 2000s. In his view, the resulting deviations from instrument rules–based policies were a key factor in the crisis and then again in the sluggish performance of the economy during the global recession period. He also argues that these deviations have extended beyond the United States, through the adoption of quantitative easing by other major central banks (for example), while also creating unpleasant monetary policy spillovers for EMEs. Taylor therefore advocates "renormalizing" monetary policy, by which he means return to a rules-based approach, suggesting that legislation might help. Such legislation would require the Fed to describe its rule or strategy for adjusting its policy instruments.

John Geanakoplos adds to the debate by arguing that central banks need to pay much more attention to financial conditions, and puts forward the concept of the credit surface. The credit surface traces the rates at which firms and households can borrow on the basis of their credit score and the value of their collateral, and it reflects the fact that default risk is an inherent element of the financial landscape. He argues that such a measure provides a much better view of financial conditions than the riskless interest rates central banks typically focus on. Geanakoplos goes on to argue that central banks need to intervene more directly on the credit surface in order to limit the booms and busts associated with credit and leverage. To do so, he advocates greater use of macroprudential tools, such as variations in loan-to-value ratios, and a more active lending role by central banks. But he also goes one step further, calling for policymakers to seriously consider debt forgiveness as a policy tool.

But are central banks taking on too much? For *Gill Marcus* the crisis forced central banks to take extraordinary actions, extending beyond their traditional focus. Additional responsibilities have been or are being added, including a greater focus on financial stability, the deployment of macroprudential tools, and so forth These actions have generated unrealistic expectations about what central banks can achieve, while also creating the perception that they have become too powerful. The

distinction between fiscal and monetary policy has blurred as a result, and central bank independence is increasingly coming under pressure. Marcus acknowledges there are no easy solutions to this problem, as a return to the narrower inflation mandate may also undermine central banks' credibility.

Fiscal Policy in the Future

When the financial system froze, and monetary policy no longer worked, most advanced economies relied on fiscal policy to limit the decrease in demand, and in turn in output. However, these measures coincided with collapsing fiscal revenues and the materialization of contingent liabilities (including from the financial sector), resulting in a dramatic increase in ratios of public debt to GDP. This led to a policy shift from stimulus to debt stabilization. As we look now to the future, the experience raises a number of issues. Should we use fiscal policy more actively for macroeconomic purposes, and if so, under what conditions? What are safe public debt levels? Can automatic stabilizers be improved? In addition, the struggles of the EU since the crisis have placed fiscal rules at the forefront of the debate. Can one design better rules? And how can fiscal policy better incorporate risks?

Vitor Gaspar focuses on two aspects of policy. First, he calls for improved analysis of fiscal risks. One lesson from the crisis is that risks are highly correlated, asymmetric, and nonlinear. Efforts to better measure, prevent, and minimize these risks are imperative for fiscal policy not to become a source of future (debt) crises. Second, he emphasizes the importance of fiscal stabilization to reduce macroeconomic volatility and support growth. Gaspar introduces the fiscal stabilization coefficient (FISCO), a measure of fiscal countercyclicality, in which a higher coefficient implies a greater stabilization role. He outlines various measures that can increase countercyclicality, such as automatic tax deductions during recessions. He warns, however, against asymmetric stabilization because of its implications for ratcheting debt levels.

Martin Feldstein discusses when to use fiscal policy to stimulate investment and aggregate demand. The traditional objection to using fiscal policy as a macroeconomic tool is that recessions do not last long, and by the time discretionary fiscal measures are implemented, it is typically

too late. Feldstein makes the point that some recessions, in particular those associated with financial crises, are long enough that discretionary policy can and should be used. He notes, however, that fiscal activism need not mean changes in the overall budget deficit or surplus but may come from changes in the composition of the budget, such as an increase in the investment tax credit financed by an increase in corporate taxation.

Marco Buti looks at the future of rules-based fiscal policy in the EU and the importance of flexibility. He argues that fiscal rules need to achieve a "double act": they need to ensure debt sustainability but also help stabilize the economy. The stabilizing role is especially important in currency unions, and yet has not been sufficiently emphasized in both the design and the implementation of the EU fiscal framework. More broadly, he argues, the current framework suffers from excessive complexity and lack of enforcement ability, both reflecting deeper political economy issues, namely, the lack of trust between the main actors in the coordination game. Despite these challenges, Buti points to recent efforts to make better use of the flexibility allowed within the current system to achieve a more growth-friendly fiscal stance and foster structural reforms, which he equates to designing "smarter" rules. The hope is that such efforts will allow a more effective implementation of the existing framework and an overall improvement in European fiscal policy.

Finally, *J. Bradford DeLong* makes a provocative case for both higher government spending and higher public debt levels in the twenty-first century. He argues that the economy will increasingly shift toward sectors (education, health care, information goods) in which market failures are pervasive. As a result, the relative size of the public sphere should expand. In addition, the rate at which the government borrows (r) is lower than the rate at which the economy grows (g), and has been so for close to two hundred years. If this is the case ($r < g$), the economy may be dynamically inefficient, in which case the textbook answer is for governments to increase, not decrease, current debt levels. If the low interest rates in fact reflect a demand by people for safety, then it still makes sense for the state to issue safe debt and use it for productive investment. (This is where the discussion about the "new normal," and what is in store for future interest rates, becomes highly relevant.)

If the interest rate is less than the growth rate, then public debt can be thought as fundamentally safe: the public debt- to-GDP ratio will decrease,

even if the government never repays the debt. There are clearly limits to this argument. If the demand for safe assets driving low interest rates reflects some distortion that may be corrected in the future, then higher debt levels may not be sustainable. Or higher debt levels may increase the risk of self-fulfilling runs. DeLong acknowledges these risks but argues that historically, fiscal crises in industrial powers have been caused by fundamental news rather than by sudden changes in the demand for government debt. He also argues that governments will always be able to impose financial repression, if necessary, which reduces the risk of debt blowups.

Capital Inflows, Exchange Rate Management, and Capital Controls

The crisis has reinforced the notion that international capital flows can be very volatile, with EMEs being particularly vulnerable. Policymakers have responded with a panoply of tools: macroprudential measures aimed at shaping flows, foreign exchange intervention, and capital controls have all become part of the policy landscape. But do these tools work? When should they be used, and how should they be articulated with the rest of the toolbox? And what does the experience since the crisis say about the optimal opening of the capital account, even in the long run?

All three chapters in this part of the volume provide, to varying degrees, justifications for some of the nonconventional tools adopted by EMEs to deal with a volatile external environment.

Maurice Obstfeld places this discussion within the broader context of the system of flexible exchange rates that emerged following Bretton Woods. He argues that the very success of floating rates in promoting real and especially financial integration is now spurring efforts to reintroduce elements of market segmentation. There is an increasing acknowledgment that flexible exchange rates cannot fully insulate economies from the global financial cycle and the policy spillovers in the form of capital flows. In this context, capital controls can be considered a second-best option. Macroprudential policies would be preferable, but he argues that their effects on capital flows are not well understood.

Luiz Awazu Pereira da Silva makes the case for the "pragmatic" approach to policymaking implemented in Brazil, and EMEs more generally, following the crises of the 1990s and further enhanced after the

global financial crisis. Initially, the approach consisted of a "textbook" component (a floating exchange rate, fiscal discipline, and inflation targeting), combined with nonstandard policies (self-insurance via reserves buildup and foreign exchange interventions to smooth exchange rate volatility). More recently, with the surge in capital inflows and the risks to financial stability, he argues that the approach has been successfully enhanced to include macroprudential policies, to avoid excessive credit growth, and refinements in the foreign exchange interventions policy to facilitate hedging by private firms.

For *Agustín Carstens*, the use of nonconventional tools in EMEs reflects a response to the financial risks created by the use of unconventional policies in advanced economies (which he nonetheless justifies in light of the domestic conditions in those countries). He sees "competitive reserve accumulation" in EMEs as an effort to mitigate the real and financial effects of capital surges and prepare for the associated flow reversals. In this regard, he argues, reserve accumulation can be considered a macroprudential tool. Carstens is, however, skeptical of bank-based macroprudential policies, given the market-based nature of the flows, as well as of the imposition of capital controls.

The International Monetary and Financial System

The financial crisis played out on a global scale, and the international monetary system was tested as never before. Central banks had to extend swap lines. The IMF created new programs to provide liquidity. Large capital flows, and large changes in exchange rates, triggered talk of currency wars. More broadly, spillovers from unconventional policies from advanced economies to the rest of the world have increasingly come into focus, as attested by the previous discussion. But are these spillovers well understood? Can we live with the existing system? If international coordination is necessary, what form should it take? Can we design cross-border financial regulation and limit the risks of international arbitrage? Should we reexamine the rules of the game for exchange rates?

Jaime Caruana makes the case that there is a blind spot in the international monetary system: the combination of domestically focused policies ("local" rules) and global markets does not constrain the buildup and international transmission of financial imbalances. Though Caruana

acknowledges that better integration of financial stability considerations into a domestic macro framework can help, his view is that countries, especially large advanced economies, need to internalize the so called "spillbacks"—the feedback from the effects of their policies on other countries back onto their own countries—in their policy decisions. More research is needed to determine the nature and magnitude of these spillbacks. Caruana also makes the case for greater international cooperation, including through global rules of the game (an argument further developed by Raghuram Rajan later in this part of the book).

Zeti Akhtar Aziz reviews international policy coordination since the crisis. She sees progress in the coordination of financial stability policies through the creation of new international agencies such as the Financial Stability Board and the strengthening of cross-border supervisory arrangements, such as the implementation of global recovery and resolution plans. She cautions against unilateral measures, such as ring-fencing of national financial systems, arguing that such measures would constitute a retreat from desirable financial globalization.[6] Aziz sees little progress in the coordination of macro policies, with the exception of regional arrangements, such as the Chiang Mai initiative of multilateral currency swaps among Asian central banks.

Ricardo J. Caballero identifies a weakness in the international financial system. There is, he argues, a global shortage of safe assets, which he sees as a main factor behind low real interest rates and secular stagnation (the "safety trap"). For Caballero, quantitative easing in advanced economies, of the type focused on long-term government bonds, and reserve accumulation in EMEs are aggravating the problem by further reducing the supply of long-term safe assets. He argues that quantitative easing by advanced countries' central banks is particularly counterproductive, given its limited direct real effects (which implies that much larger purchases are needed) and the triggering of further reserve accumulation by EMEs. Two recommendations follow: (1) to go further in the global pooling of risks by strengthening IMF facilities and extending swap arrangements so that there is less need for self-insurance by central banks in EMEs, and (2) to pay increasing attention to the global spillovers from policies in advanced economies.

Finally, *Raghuram Rajan* goes further in his critique of the international monetary system. He argues there is excessive focus in reigniting

weak growth in advanced economies, which he labels "the growth imperative." This imperative is pushing central banks to engage in policies (e.g., quantitative easing) whose effects, he argues, are to shift demand away from other countries and to increase leverage and financial vulnerabilities. Rajan makes an explicit call for multilateral organizations such as the IMF to develop new rules of the game with regard to exchange rates, and to explicitly assess whether countries' policies are consistent with these rules.

Conclusion

In light of these discussions, does progress or confusion prevail with regard to the future of macro policy? In the final chapter, *Olivier Blanchard* concludes the answer is both. For example, he argues that there is agreement that macroprudential policies have to be become part of the toolkit. But there is a great deal of uncertainty about the type of tools, given the changing shape of the financial system. In the monetary policy area, Blanchard agrees that many lessons have been learned. But there is no clear agreement on some of the key issues, such as the right size of central bank balance sheets or the type of instruments. And on fiscal policy, confusion remains about what constitute safe levels of debt.

Notes

1. See Blanchard et al. (2012) and Akerlof et al. (2014).
2. See Summers (2015).
3. See IMF, *World Economic Outlook* (2014b), chap. 3.
4. Looking at banking crises since 1970, recent research at the IMF (Dagher et al. 2015) finds that a risk-weighted capital ratio of 15–22 percent would have been sufficient to fully absorb bank losses in approximately 90 percent of them, or about 9–13 percent in non-risk-weighted terms.
5. See IMF, *Global Financial Stability Report* (2014b), among others.
6. Obstfeld's chapter in the previous section raises an interesting counterpoint. He sees regulatory efforts to ring-fence domestic financial systems as attempts to regain national sovereignty over financial policy. These efforts may be segmenting global banks' internal capital markets and reducing efficiency, but Obstfeld argues that this may be worthwhile if it helps reduce risks to financial stability worldwide.

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