WHITE PAPER

# Introduction to The Asian Monetary Policy Forum: Insights for Central Bankers

*Steven J. Davis, Edward S. Robinson, and Bernard Yeung*

APRIL 2021

Becker Friedman Institute
FOR ECONOMICS AT UCHICAGO

5757 S. University Ave.
Chicago, IL 60637
Main: 773.702.5599
bfi.uchicago.edu

18 January 2021

This essay is the introduction to a volume titled, *The Asian Monetary Policy Forum: Insights for Central Banking*, edited by Steven J. Davis, Edward S. Robinson and Bernard Yeung, and published by WorldScientific, 2021.

# Introduction to The Asian Monetary Policy Forum: Insights for Central Bankers

By Steven J. Davis, Edward S. Robinson, and Bernard Yeung[1]

## I. Introduction

Advances in technology, stronger institutions, and liberalized markets have propelled a globalization of banking, securities, and currency markets. In turn, financial globalization has facilitated trade, output and cross-border investments in Asia and around the world. Alongside impressive output growth, many countries in Asia have seen tremendous increases in business scale and sophistication. Their financial systems have expanded and deepened. Their corporates and banks now engage in extensive cross-border financial arrangements. Tokyo, Singapore, and Hong Kong have become major international financial hubs, providing services that support production, trade and spending, and acting as engines of growth in their own right.

[1] Steven J Davis is the William H. Abbott Distinguished Service Professor of International Business and Economics, University of Chicago Booth School, Senior fellow at the Hoover Institution, research associate of the NBER and senior fellow with the ABFER. Email: Steven.Davis@chicagobooth.edu

Edward S Robinson is Deputy Managing Director (Economic Policy) and Chief Economist, Monetary Authority of Singapore and Advisor, ABFER. Email: Edward_ROBINSON@mas.gov.sg

Bernard Yeung is the Stephen Riady Distinguished Professor of Finance and Strategic Management, National University of Singapore Business School, and President, ABFER. Email: byeung@nus.edu.sg

We are grateful to Liew Yin Sze and Ng Ding Xuan for comments on an earlier draft of this Chapter.

As a result, Asian countries have become more exposed to international economic and financial developments, including spillovers that arise from negative shocks and policy shifts in Europe, America, and elsewhere. Prominent examples include the dot.com bust in the early 2000s, the Global Financial Crisis of 2007-09, a series of sovereign debt and banking crises in Europe since 2010, and the ongoing COVID-19 pandemic. These episodes drove large shifts in trade flows, interest rates, risk premia, capital flows, credit growth, and asset prices in Asian economies. In addition, and for smaller countries in particular, strong capital markets integration places limits on macroeconomic policy options (Rey, 2013).

Major shocks have also originated within Asia in recent decades, with the 1997 Asian Financial Crisis as the leading example. Due to inadequate financial supervision frameworks as capital accounts were liberalized, banks and other businesses took on increasing foreign debt on expectations that fixed exchange rate regimes would shield them against adverse currency movements. The subsequent rapid buildup of currency and maturity mismatches set the stage for a devastating financial crisis, triggered by the Thai baht devaluation in July 1997.

Financial globalization brings benefits ***and*** new sources of economic risk and financial volatility. In response, central bankers have extended their focus beyond price and exchange rate stability to give more attention to the stability and efficiency of the financial system. This expanded domain of concern for central bankers has brought new, often complex, policy challenges. We can learn a great deal from our experiences, sometime harsh, in responding to these challenges and our efforts to address the risks associated with financial globalization. We believe that a deeper understanding can point the way to better policy design and stronger economic performance.

In this spirit, the Monetary Authority of Singapore (MAS), the Asian Bureau of Finance and Economics Research (ABFER), the University of Chicago Booth School of Business, and the National University of Singapore Business School have collaborated since 2014 in organizing the annual Asian Monetary Policy Forum (AMPF). The forum facilitates the exchange of insights among policymakers, practitioners, and senior academicians by delving into pressing monetary policy issues in open-economy settings, with particular attention to Asian countries. The aim is to draw lessons from experience for the benefit of policymakers in Asia and around the world.

The commissioned papers presented at the AMPF offer insights about major developments in the global monetary and financial system, the efficacy of monetary and other policies, and the containment of financial risks. We are grateful to authors, discussants and other participants for their outstanding contributions, and we feel compelled to share the learnings in the broadest possible way. We have compiled the commissioned papers into this book, as a reference to practical and critical thinking about central bank policies in Asia and beyond. We include an edited version of a speech delivered by MAS Managing Director Ravi Menon at the inaugural AMPF.

## II. Setting the Stage: The Inaugural Asian Monetary Policy Forum

The Global Financial Crisis (GFC) compelled central bankers to reconsider the role of monetary policy in securing financial stability. Ravi Menon addresses this topic in his speech at the first AMPF. See Chapter 2, where Menon describes three broad approaches to the issue:

1. Stick to the traditional approach, whereby monetary policy focuses on price stability. Supplement monetary policy with prudential regulations such as capital requirements for financial institutions.
2. Explicitly incorporate financial stability concerns into the conduct of monetary policy – tightening, for example, in response to an unsustainable credit boom.
3. Retain the focus on price stability in the conduct of monetary policy, but deploy a range of macroprudential tools to secure financial stability.

The second approach rests on the insight that monetary policy affects financial stability through the risk-taking channel. "Loose monetary policy can heighten vulnerabilities in the financial system" by lowering risk premiums, thereby promoting risk-taking activities and encouraging banks to expand credit. Conversely, tight monetary policy raises risk premiums, discouraging risk-taking behavior and restraining credit growth. An appealing feature of the second approach, as Menon explains, is that monetary policy can "get in all the cracks" of the financial system. Financial institutions cannot easily evade the effects of tight monetary policy the way they often work around restrictive regulations. Also, the second approach requires only modest departures from well-established and well-understood monetary policy practices.

Operationally, the second approach amounts to augmenting the Taylor Rule, so that financial stability concerns influence the central bank's choice of its policy rate.

Menon also explains why relying on monetary policy to secure financial stability may not be enough. First, the policy rate that promotes financial stability may differ from the rate needed for price and output stability. Second, global financial forces may constrain the conduct of monetary policy, an especially important factor for many emerging market economies (EMEs). Third, although monetary policy can get in all the cracks, it may still not be sufficiently potent to fully address serious threats to financial stability. For these reasons, macroprudential policies play an increasingly important role in the central banking toolkit.

Since the outset, many AMPF contributions have addressed concerns related to international capital flows and their implications for monetary policy. The inaugural AMPF commissioned paper by Prof. Maurice Obstfeld, "*Trilemmas and Trade-offs"* (Chapter 3), considers the capacity of emerging market economies (EMEs) to use monetary policy and macroprudential tools to moderate the domestic effects of global financial forces. Obstfeld provides evidence that monetary policy affords EMEs some ability to moderate the effects of external shocks on shorter-term domestic interest rates. Longer-term rates, however, are less responsive to domestic monetary policy and more subject to global financial conditions, even in EMEs that operate with flexible exchange rate systems. Thus, shocks and developments that originate elsewhere can sharply raise the cost of funds in the domestic economy. This work has spurred new research on trilemmas, dilemmas, and even 2.5-lemmas. See Han and Wei (2018), for example.

Issues related to price and financial stability, macroprudential policy, capital flows, exchange rate systems, and related policy tools, arose repeatedly at the Asian Monetary Policy Forums held from 2014 to 2020. Other issues arose as well – including the challenges presented by the dominance of the U.S. dollar in the international monetary and financial system. In the rest of this essay, we summarize some of the key learnings about these matters. We start with a summary of empirical evidence highlighted by the commissioned papers. Next, we turn to policy insights, which we organize according to Prof. Alan Blinder's advice that *"good economic policy exploits the market mechanisms where it shines, helps it along where its flaws are easily remedied,*

*and overrules it by government fiat where it fails*."[2] Then we discuss foundational work that aims to identify the conditions for a stable financial system, and that highlights complementarities between conventional monetary policy and other central banking tools. We close with remarks about the goals of the AMPF and some outstanding challenges for central bankers.

## III. Evidence

Several papers in this volume present evidence about the nature of financial globalization and its implications for monetary policy and other aspects of central banking. We sort the empirical evidence into four categories: monetary sovereignty, exchange rate regime choices, the status of international banking and securities markets, and the dominance of the US dollar.

### III-A Monetary sovereignty

Prof. Obstfeld stresses that a flexible exchange rate regime offers EMEs greater latitude to use monetary policy and macroprudential tools to moderate the domestic economic effects of global financial forces. Examining the experiences of 22 advanced and 33 emerging economies from 1990 to 2013, he shows that monetary authorities retain some degree of interest rate independence at the shorter end of the maturity spectrum when they operate floating exchange rate regimes. However, he also provides evidence that longer-term domestic interest rates are poorly insulated from global influences regardless of the exchange rate regime. Here, "independence" is defined by whether the U.S. interest rate, the rates of multiple base currencies, or the VIX explains movements in home-country interest rates.

These results illustrate that exchange rate regimes matter: monetary sovereignty is preserved to a significant extent outside of fixed exchange rate regimes. Hence, even for small economies buffeted by a global financial cycle, the monetary trilemma is still valid. With open capital markets, monetary authorities have far more room for maneuver than if they peg the

[2] See Blinder (2018). Of course, policy, policymakers and the policymaking process have their own limitations and imperfections. Thus, market failure is properly seen as a necessary condition for policy intervention, not a sufficient one.

exchange rate. However, this latitude is circumscribed by the need for policymaker attention to domestic financial stability.

### III-B Exchange Rate Regime Choices

Prof. Jeffrey Frankel (Chapter 6) stresses that economies have more than two choices when it comes to exchange rate regimes. He tracks the correlation between the change in a currency's foreign exchange value and the change in its foreign exchange reserves (as a fraction of the country's monetary base) over the period 1995 to 2015. The correlations illustrate that, in practice, Asian economies have adopted a variety of foreign exchange regimes, e.g., a fixed-rate regime in Hong Kong, a managed float in Singapore, and an essentially free-floating regime in the Philippines. On the whole, from 1980 to 2010, the proportion of EMEs operating a managed float has increased.

Prof. Frankel also reports regression results that show how an external shock's impact on the real exchange rate varies according to the exchange rate regime. He captures external shocks by using (natural log) measures of the VIX and commodity prices. In Asian regions with an exchange rate peg (e.g., Hong Kong), these shocks do not affect the real exchange rate. In managed float regimes, the impact is greater than zero but less than in jurisdictions with freely floating rates. Thus, the choice of exchange rate regime affects the behaviour of real exchange rates and their responsiveness to external shocks, at least in the short term. During the forum, discussants suggested the need to also examine if exchange rate regimes matter for key macroeconomic variables, including price and output volatility.

### III-C Financial globalization

***Asia's domestic bond markets***

In Chapter 4, prepared for AMPF 2015, Professor Barry Eichengreen describes the rapid growth of Asian bond markets after the 1997 Asian Financial Crisis (AFC). Asia's domestic bond market capitalisation (ex-Japan) rose from 33% of aggregate GDP in 2000 to 57% in 2014. Cross-sectional regressions show that both bond and equity market capitalizations are correlated with per

capita GDP. In addition, bond market capitalization is positively associated with the use of common accounting standards and better control of corruption.

Prof. Eichengreen also shows that state-owned banks in China continue to dominate the banking sector and hold most Chinese government bonds. Corporate bonds are mostly issued by state-owned enterprises and have a more diversified investor base. In the equity market, the state used to tightly controls new listings.

***International claims***

In Chapter 7, prepared for AMPF 2018, Stefan Avdjiev, Bat-el Berger, and Hyun Song Shin review and document several empirical aspects of international lending. While credit cycles may appear similar at the aggregate level, they often differ in their underlying microeconomic features. For example, South Korea experienced a build-up of externally funded bank lending before the AFC and the GFC, as did Spain after the creation of the Euro in 1999. However, South Korea borrowed short term in US dollars, while Spain borrowed long term in Euros. Thus, the Korean cases involved vulnerabilities in the form of currency and maturity mismatches that were not present in the Spanish case.

The authors also show that international bank lending follows identifiable cycles. U.S. banks lent heavily to Latin America in the 80s, Japanese banks lent to Asian countries in the 90s, and European banks lent to emerging economies before the GFC. Using five Asian countries to illustrate, the authors highlight the following pattern: foreign banks lend to domestic banks, which in turn extend short-term dollar-denominated loans to domestic nonfinancial companies. Their evidence underscores how external credit availability and foreign risk-preference cycles affect intermediation in Asian economies and potentially create domestic vulnerabilities associated with term and currency mismatches in assets and liabilities.

As they also stress, the traditional approach to the study of international finance – which presumes a 'triple coincidence' in GDP area, currency area, and decision-making unit – can yield misleading impressions when financial flows are important. The currency areas of major funding

currencies, especially the US dollar and the Euro, are much broader than their GDP areas. Moreover, the overlap between decision-making units and GDP areas is shrinking, as banks often lend in regions outside their headquarters via securitized market instruments. For instance, European banks held claims on U.S. borrowers of $856 billion in 2002 and more than $2 trillion by 2007. This increase coincided with growth in asset-backed securities from modest levels in the early 2000s to over $2 trillion by 2007. Direct financial intermediation between savers and corporations via capital markets has also grown rapidly.

They also stress that foreign-currency borrowing by EME corporates has aspects of a 'carry trade," whereby cheap dollar borrowing, for example, spills over to the domestic economy in the form of easier credit conditions. When foreign credit conditions tighten or the dollar appreciates, cheap dollar borrowing dries up and domestic credit conditions tighten. Even when the domestic monetary authority holds large dollar reserves, shifts in the cost of dollar borrowing can create sectoral disparities within the domestic economy.

### III-D International monetary system

Policy discussions in central banking circles often turn to spillovers arising from U.S. monetary policy. The pre-eminent role of Fed policy is closely related to the dollar's dominant position in the global monetary and financial system. Prof. Pierre-Olivier Gourinchas considers the dollar's role in Chapter 8, prepared for the 2019 AMPF. Among other markers of the dollar's pre-eminence, he notes that global trade invoiced in U.S. dollars is about four times as large as the U.S. share of global trade. On the financial side, 59% of international loans and 63% of international debt securities are denominated in dollars.

As Prof. Gourinchas also shows, the world remains on an informal dollar standard, despite the breakdown of the Bretton Woods system half a century ago. The dollar is the main currency of intervention for most central banks, the main currency in which they accumulate foreign exchange reserves, and the leading anchor currency against which other central banks seek to stabilize their currency values. As he explains, the dollar's dominance in invoicing and payments, in financial claims, and as a currency anchor are mutually reinforcing. If goods are invoiced and

transacted in dollars, central banks want stable currency values vis-à-vis the dollar. In addition, private parties often want dollar loans because large portions of their cash flows are in dollars.

## IV. Policy Implications for Central Banks

The AMPF commissioned papers, and the discussions during the forums, yield many useful policy insights. They fit well with Prof. Blinder's advice on how economic policy should interact with the market mechanism. Thus, we organize the insights based on the following functional purposes: (i) addressing structural deficiencies to enable markets to flourish, (ii) correcting distortions, and (iii) intervening to remedy malfunctioning markets.

### IV-A Addressing structural deficiencies

Prof. Eichengreen argues in Chapter 4 that governments can help develop domestic capital markets by promulgating sound disclosure and accounting standards. Strong standards attract a broader range of investors in domestic securities, enabling domestic enterprises to more readily raise funds. This is an example of how cross-border financial integration can support the domestic economy. At the same time, Prof. Eichengreen cautions, policymakers must recognize the new financial stability risks that accompany deeper capital markets integration, and they must create policy space for responding to those risks.

This theme arose again at AMPF 2018 in the commissioned paper by Dr. Shin and his co-authors (Chapter 7). The paper reports a rigorous examination of the changing circuitry of cross-border capital flows, which has contributed to rapid growth in the size and complexity of EME financial markets. Accompanying this growth is a build-up of financial risks as seen in the rising pro-cyclicality of bank balance sheets, greater cross-border lending to nonfinancial companies, and greater departures from the 'triple coincidence.' In a nutshell, greater complexity makes it harder to track currency and term structure mismatches. A quick shift in foreign risk attitudes, currency values, or foreign interest rates can disrupt the domestic economy via domestic banks, nonfinancial corporations, and investment institutions. Governments can help market participants gauge, prepare for, and respond to the potential consequences of such shifts by promoting the timely measurement of risk exposures and their dissemination.

### IV-B Correcting distortions

The second Blinder category comprises market-consistent interventions that help correct distortions, such as when pricing behavior diverges from equilibrating levels. The forum's commissioned papers and discussions provide useful insights along this line as well.

Prof. Obstfeld (Chapter 3) shows that a central bank retains the ability to affect short-term interest rates by opting for flexible exchange rates. Prof. Jeffrey Frankel (Chapter 5) further shows that a central bank can intervene to dampen the real exchange rate fluctuations caused by external shocks. Even under a managed float, the monetary authority retains some control over short-term domestic interest rates. In contrast, under a pegged exchange rate, the central bank surrenders interest rate control but shields its real exchange rate from foreign shocks. In other words, the choice is between absorbing external volatility by letting domestic interest rates and the real exchange rate adjust, or by allowing only the interest rate to adjust. The central bank's best policy decision depends on which is preferable: correcting a misaligned real exchange rate, correcting an inappropriate domestic interest rate setting, or some combination of the two.

Dr. Olivier Blanchard (Chapter 4) provides an analytical characterization of how monetary policy shocks transmit internationally, especially when advanced economies face limits on the use of fiscal policy. An easing of U.S. monetary policy raises U.S. aggregate demand and the demand for goods and services produced abroad. Easier U.S. monetary policy also leads to dollar depreciation, dampening U.S. demand for foreign goods and services. These two channels involve countervailing effects on U.S. trading partners. In addition, shifts in the stance of U.S. monetary policy can trigger large portfolio demand shifts, with powerful effects on financial conditions inside emerging market economies. Policymakers need to consider whether these effects involve serious distortions and, if so, how best to respond.

Blanchard sees limited prospects for international monetary policy coordination to address these concerns. Thus, when fiscal policy tools are unavailable or the source of additional problems, Blanchard sees capital controls as natural and useful tools for promoting macroeconomic and financial stability. Other discussions at the 2016 AMPF also make a case for extending the policy

toolkit beyond interest rates to include foreign exchange interventions, fiscal measures, and macroprudential policies that correct distortions and forestall risks.

Prof. Gourinchas (Ch. 7) draws attention to policy implications in a dollar-dominated system. As an example, consider the traditional view of how flexible exchange rates facilitate an equilibrating response to a negative shock that lowers domestic demand and the foreign exchange value of the domestic currency. According to the traditional view, prices are slow to adjust and set in units of the producer's own-country currency. It follows that a depreciation of the domestic currency lowers the price of exports and raises the price of imports, at least temporarily. Under this view, a currency depreciation chokes off imports while boosting exports. In contrast, under full dollar invoicing, a depreciation of the domestic currency quickly passes through to increased import prices but leaves export prices unaffected. In this way, dollar invoicing reduces the role of flexible exchange rates in buffering the effects of negative demand shocks.

As a second example, consider the effects of U.S. monetary policy. Under the traditional view, U.S. monetary tightening appreciates the dollar, which is contractionary and can spillover to other countries. Under dollar invoicing, however, dollar appreciation raises foreign import prices. If foreign central banks want to offset this effect on their domestic price levels, they must tighten monetary policy as well. In this way, a contractionary monetary policy move in the United States generates a contractionary monetary policy response abroad under dollar invoicing.

Dollar appreciation also raises the liabilities of countries with net dollar debt and tightens their financial constraints. Therefore, the proper response to U.S. monetary tightening depends on a country's net foreign asset position and the currency denominations of its assets and liabilities. The direction and size of these financial effects differ across countries, as do the trade effects associated with changes in the relative prices of exports and imports. Thus, optimal responses of other central banks to a U.S. monetary tightening are likely to vary across countries.

Overall, the lesson in these discussions is that policymakers must identify the source of distortions and their potential effects. They must then apply suitable remedies, which may vary by country and period. Many conditions can vary, e.g., the speed of adjustment in goods markets, the ability to anticipate and adjust to interest rate and exchange rate changes, the size and currency

denominations of assets and liabilities, and the U.S. dollar's position in international trade and international financial system. All of these factors can affect the appropriate policy responses.

### IV-C Direct government interventions

Olivier Blanchard (Ch. 4) makes the case for capital controls in EMEs when advanced economies suffer from a shortage of demand, and they are unable or unwilling to address the demand shortage using fiscal policy tools. Advanced economies then rely too heavily on expansionary monetary policy, causing EME currencies to appreciate and driving gross international capital flows in ways that potentially disrupt EME financial conditions. Monetary policy coordination cannot resolve the problem because of conflicting goals and disagreements about policy effects, which are often highly uncertain. Under these circumstances, judicious capital flow management measures by EMEs might be the right policy choice to mitigate volatility and negative spillovers. This may open up room to use other policies for domestic objectives. Blanchard acknowledges that capital controls come with their own problems and risks. He also remarks that we still have much to learn about how monetary policy in advanced economies affects international capital flows and financial conditions in EMEs. Discussions during the forum emphasized complementarities among policy tools, the need to understand when to use particular tools, and the potential longer-term consequences of each tool.

## V. An Integrated Policy Framework

As Ravi Menon stresses in Chapter 2, monetary policy objectives have expanded beyond price and exchange rate stability to include financial stability and system efficiency. This expanded domain of concern brings many challenges. In the first place, monetary and financial cycles may not be synchronised. Second, capital market integration weakens policy effectiveness and imposes additional trade-offs. For example, raising domestic rates to dampen inflation will attract capital inflows and potentially undermine exchange rate and financial stability. It would be desirable to have a framework that holistically brings together objectives, tools and shocks. We also need a framework that yields an internally consistent, integrated analysis of policy tools: interest rates, capital controls, exchange rate interventions, and macroprudential policies.

## V-A Safe Assets and Policy in a Financially Globalized World

In Chapter 9, prepared for AMPF 2020, Profs. Markus K. Brunnermeier, Sebastian Merkel, and Yuliy Sannikov present a framework built on Brunnermeier and Sannikov (2016, 2019). Their starting point is that financial frictions create demand for safe, liquid assets that maintain value in times of market stress. Safe assets are worth more than the present value of their cash flows because they provide medium-of-exchange, liquidity, collateral, and store-of-value services. For example, the combination of high liquidity and stable value, especially in times of stress, means that safe assets yield insurance services to their holders. These non-cash service flows can give rise to a "bubble" component in the price of certain assets that rests partly on perceptions of their safety, including the expectation that they will continue to provide the safe asset services mentioned above. While this characterization may seem abstract, safe assets are of great practical importance. For example, governments that supply such assets in the form of debt securities can borrow more cheaply and in larger volumes.

In a financially globalized setting, domestically supplied safe assets must compete with international safe assets, which are often denominated in dollars. In equilibrium, the real pecuniary return on the domestic safe asset must exceed that of international assets that offer greater safe-asset services. The pecuniary return on domestic safe assets – which includes a risk premium to account for the possibility that the domestic asset loses its safe status – must also satisfy a domestic sustainability condition. This condition becomes easier to satisfy the smaller is the domestic safe-asset risk premium and the faster is the domestic economy's growth rate.

In the stylized framework of Prof. Brunnermeier *et al.*, global financial cycles arise from changes in global risk appetites and from shifts in the monetary policy stance of leading safe-asset suppliers, principally the United States. A "risk-on" period often coincides with loose U.S. monetary policy (i.e., low U.S. interest rates), which increases the relative attractiveness of the domestic safe asset, raising its price and lowering its pecuniary yield. Small open economies can then borrow externally at lower costs by using local safe assets as collateral. These conditions facilitate a domestic economic boom and a relaxation of the domestic sustainability condition. However, when U.S. monetary policy tightens, market participants reallocate to U.S. safe assets and a "risk-off" period ensues. The small open economy's safe assets then face greater foreign

competition, raising pecuniary yields on the domestic safe asset. The increase in borrowing costs lowers the domestic economy's growth rate, which tightens the domestic sustainability condition. The safe status of domestic safe assets can come under threat, possibly leading to a decline, or even precipitous collapse, in the bubble component of the domestic safe-asset price.

Thus, the ability of small open economies to issue safe assets is affected by foreign monetary policy as well as domestic conditions. The authors use their integrated framework to analyse several possible policies to prevent the bursting of the domestic safe-asset bubble in "risk-off" episodes and to avoid inefficient risk-taking during "risk-on" episodes. These include macro-prudential policies and capital controls to directly restrict portfolio choices, as well as foreign exchange interventions or foreign reserve management to change the mix of assets and liabilities in the domestic economy. They also consider interactions between these policies and conventional monetary policy.

The authors point out that ex-ante macroprudential policies can prevent the bursting of a safe-asset bubble by inhibiting leverage and the asset-price inflation induced by large capital inflows during the boom or risk-on phase. By ensuring that banks retain sufficient capital buffers during the boom phase, the economy has a larger cushion to head off runs in response to falling growth during the risk-off phase. Ex-post macro-prudential policies that force banks to hold more domestic government debt implicitly restrict capital outflows during the bust phase, which can also help the domestic safe asset retain its safe status. In addition, anticipations of ex-post capital controls and exchange rate interventions can help maintain price stability and market liquidity by persuading domestic safe-asset holders that no run will ensue, thereby raising the bubble component of the domestic safe-asset value. Knowing that the bubble will survive even after a rise in the U.S. interest rate, investors become more willing to hold domestic safe assets.

The authors provide a novel perspective on the debate over the validity of the trilemma in international finance. Even if the foreign exchange rate is fully flexible, constraints on the economy's ability to issue domestic safe assets can limit its monetary policy autonomy. For example, expansionary monetary policy in response to a negative domestic shock may undermine the safe status of the domestic safe asset due to competition from international safe assets. Contractionary monetary policy to stabilise inflation may lower the economy's growth rate,

tightening the domestic sustainability condition and thereby threatening the status of the domestic safe asset. In this way, monetary policy autonomy can be constrained by foreign competition and domestic growth, even under a flexible exchange rate regime.

By helping to preserve the capacity to issue domestic safe assets, macro-prudential policies, capital controls and exchange rate interventions can create more space for monetary policy. Wise application of these policies can accommodate, or even shape, competition among domestic and international safe assets and also accommodate shifts in global risk appetites in ways that promote financial stability and healthy risk-taking.

Discussants stress that the viability and resilience of domestic safe assets also depends on the quality of domestic governance.[3] In particular, weak public governance that leads to wasteful government over-borrowing without faster growth tightens the domestic sustainability condition. Furthermore, measures aimed at supporting the domestic safe asset, such as capital controls, can distort market competition and development and lead to excessive borrowing in foreign currencies by the private sector. The interactions among the authors and discussants point to the importance of several key factors for a stable system that include good governance, efficient information flows, and prudent public and private sector behavior based on informed and rational expectations.

## V-B Improving the Global Financial Architecture

In the framework of Brunnermeier et al., (Ch. 8) financial stability rests partly on preserving the bubble component of safe-asset values. To improve financial stability, they stress the need to ensure an adequate and stable supply of safe assets. Under the current global financial architecture, safe assets are asymmetrically supplied: a few countries issue a disproportionate share of global safe assets, as Prof. Gourinchas describes in Chapter 7. The current policy toolkit to deal with shortages of safe assets and instability in their values includes IMF lending facilities, bilateral

[3] See Prof. Viral Acharya 2020, http://abfer.org/media/abfer-events-2020/e-ampf/eAMPF2020_Comments_Viral-Acharya.pdf and Dr. Frank Smet, 2020. http://abfer.org/media/abfer-events-2020/e-ampf/eAMPF2020_Comments_Frank-Smets.pdf

swap lines between central banks, and the costly accumulation of foreign exchange reserves during normal times.

In view of this asymmetry, and building on Brunnermeier et al. (2017) and Prof. Brunnermeier's suggestion in AMPF 2018, the authors propose an international system of Global Safe Bonds (which they call GloSBies). GloSBies are bonds issued from the pooled liabilities of a group of EME countries, which are then tranched into senior and junior grades. The proposal calls for an international special-purpose vehicle (SPV) that buys a fraction of participating countries' sovereign bonds and requires the participating countries to commit to service the senior tranche first. The aim is for the senior tranche to achieve safe-asset status, lowering funding costs for all participating countries. Under such a system, the authors argue that international investors will tend to allocate larger portfolio shares to junior tranches during risk-on periods and shift to senior tranches during risk-off periods. This should help maintain credit supply to participating countries by generating strong demand for senior bonds in periods of market stress, thereby reducing capital flight from EMEs. This system also benefits from the diversification over the multiple countries that contribute bonds to the pool.

## VI. Concluding Remarks

As we look back to the Asian Monetary Policy Forums from 2014 to 2020, we are greatly pleased to see so many excellent contributions that throw light on the complex policy challenges facing central banks. As we look forward, we see no shortage of open questions for future editions of the AMPF.

One pressing set of issues is how best to deploy monetary and fiscal policies to promote recovery from the devastating economic effects of the COVID-19 pandemic. Another set of issues, intensified by the pandemic, involves the high fiscal deficits and sovereign debt levels in many countries. The risk of major sovereign debt crises looms larger now than before the pandemic, at least in some parts of the world, and there is now less fiscal space to deploy in future crises. The secular fall in nominal and real interest rates, which predates the pandemic, lessens the scope for conventional monetary policy tools and is another major factor behind the expanded use of once-

unconventional monetary policy tools. The optimal mix of conventional and unconventional monetary policies, and whether and how to combine them with macroprudential policies, remains an important issue.

The dominant role of the U.S. dollar and U.S. monetary policy is also likely to remain a significant source of tension and policy challenges in the years ahead. One question is whether the United States will remain willing and able to serve as chief supplier of global reserves, borrowing from the rest of the world and running persistent trade deficits. Another question is whether other countries will remain satisfied with that role for the United States. Many, including AMPF participants, have raised concerns about the asymmetric supply of safe assets and the vulnerabilities they create in the current system. Some also propose solutions that call for careful evaluation and analysis.

Advances in distributed-ledger technologies are also shaking up the banking and financial system. Tech companies and central banks are studying, experimenting with, and adopting innovations in payment mechanisms that have great potential to disrupt business models in the banking sector and create new challenges for monetary policy (Duffie, 2019). These new technologies offer the promise of large benefits in the form of faster, cheaper payments and better information, but their effects on functional efficiency in the payments system, monetary policy transmission, and financial stability are far from fully understood. These and other issues will find a ready discussion platform at the AMPF, which will continue to bring together central bankers, academics and market participants to analyzes the issues and inform debates about policy design.

# References


**Acharya, Viral V**, "Comments on A Safe-Asset Perspective for an Integrated Policy Framework," in "Asian Monetary Policy Forum," Asian Bureau of Finance and Economic Research, 2020.

**Avdjiev, Stefan, Bat el Berger, and Hyun Song Shin**, "Gauging Procyclicality and Financial Vulnerability in Asia through the BIS Banking and Financial Statistics," in "Asian Monetary Policy Forum," Asian Bureau of Finance and Economic Research, 2018. (Ch. 6, this Volume)

**Blanchard, Olivier**, "Currency Wars, Coordination, and Capital Controls," in "Asian Monetary Policy Forum," Asian Bureau of Finance and Economic Research, 2016. (Ch. 4, this Volume).

**Blinder, Alan S**, *Advice and dissent: why America suffers when economics and politics collide*, Basic Books, 2018.

**Brunnermeier, Markus K, Sam Langfield, Marco Pagano, Ricardo Reis, Stijn Van Nieuwerburgh, and Dimitri Vayanos**, "ESBies: Safety in the Tranches," Economic Policy, 2017, 32 (90), 175–219

**Brunnermeier, Markus K, Sebastian Merkel, and Yuliy Sannikov**, "A Safe-Asset Perspective for an Integrated Policy Framework," in "Asian Monetary Policy Forum" Asian Bureau of Finance and Economic Research, 2020 (Ch. 8, this Volume).

**Brunnermeier, Markus K. and Yuliy Sannikov.** "The I Theory of Money," Working Paper, Princeton University, 2016.

**Brunnermeier, Markus K. and Yuliy Sannikov.** "International Monetary Theory: A Risk Perspective," Working Paper, Princeton University, 2019.

**Duffie, Darrell,** "Digital Currencies and Fast Payments Systems: Disruption Is Coming," prepared for the Asian Monetary Policy Forum, May 2019.

**Eichengreen, Barry J**, "Financial Development in Asia: The Role of Policy and Institutions, with Special Reference to China," in "Asian Monetary Policy Forum," Asian Bureau of Finance and Economic Research, 2015 (Ch. 3, this Volume).

**Frankel, Jeffrey**, "Systematic Managed Floating," *Open Economies Review*, 2019, *30* (2), 255–295 (Asian Monetary Policy Forum 2017, and Ch. 5, this Volume).

**Gourinchas, Pierre-Olivier**, "The Dollar Hegemon? Evidence and Implications for Policy Makers," in "Asian Monetary Policy Forum," Asian Bureau of Finance and Economic Research, 2019 (Ch. 7, this Volume).

**Han, Xuehui and Shang-Jin Wei**, "International Transmissions of Monetary Shocks: Between a Trilemma and a Dilemma," Journal of International Economics, 110, pp. 205–219, 2018.

**Menon, Ravi**, "Getting in all the cracks or targeting the cracks? Securing financial stability in the post-crisis era," 2014. Opening Remarks at the Asian Monetary Policy Forum, Singapore (Ch. 1, this Volume).

**Obstfeld, Maurice**, *Trilemmas and Tradeoffs: Living with Financial Globalization*, Central Bank of Chile, 2015 (and Asian Monetary Policy Forum 2014, Ch. 2, this Volume).

**Rey, Hélène**, "Dilemma not Trilemma: The Global Financial Cycle and Monetary Policy Independence," 2013. Federal Reserve Bank of Kansas City Economic Policy Symposium.

**Smets, Frank R**, "Comments on A Safe-Asset Perspective for an Integrated Policy Framework," in "Asian Monetary Policy Forum," Asian Bureau of Finance and Economic Research, 2020.