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ABSTRACT

This paper analyzes the consequences of the internationalization of the Chinese renminbi for the global monetary system and its possible ascension to reserve currency status. In an unstable and financially integrated world, governments' precautionary demand for reserve assets is likely to increase. But the world then risks a third crisis of the global reserve system, another re-run of the Triffin paradox, with an ever-growing emerging-world insurance demand loaded onto a small group of ever more strained net debt suppliers. Two ways to avoid this outcome would entail either expanding the supply of credible reserve liquidity to include some large emerging-market providers, or finding ways to manage emerging-market risks so as to moderate the perceived need for insurance, and China would have to loom large in both solutions.

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The Future of International Liquidity and the Role of China*

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This paper analyzes the consequences of the internationalization of the Chinese renminbi for the global monetary system and its possible ascension to reserve currency status. It argues that if the process proves feasible, despite the difficult hurdles along the way, the results of internationalization would be constructive, both for China and the rest of the world.

Given sophisticated but periodically unstable global capital markets, governments' precautionary demand for reserve assets is likely to increase. But if emerging-market central banks and other reserve managers (such as sovereign wealth funds) continue overwhelmingly to favor the dollar and a small set of other developed-market reserve currencies as a store of value, the world risks a third crisis of the global reserve system. This would be a re-run in a somewhat different guise of the well-known paradox described by economist Robert Triffin in 1960, whereby the demand for international liquidity, when loaded onto a small set of national currencies, ends up destabilizing the system as the key reserve suppliers issue more and more assets and hence build up unsustainable debts.¹ Such forces, Triffin argued, were a main cause of the 1930s crisis of the gold exchange standard; and as he predicted, those forces emerged again in the 1970s to destabilize the dollar-and-gold-based Bretton Woods system.

* This paper was presented at the Council on Foreign Relations symposium *Future of the International Monetary System and the Role of RMB*, held in Beijing on October 31 and November 1, 2011. I thank Sebastian Mallaby, Robert Rubin, Martin Feldstein, and all the participants for helpful comments. Don Chew has given superb editorial guidance. All errors are mine.

1. Robert Triffin, *Gold and the Dollar Crisis* (New Haven, Conn.: Yale University Press, 1960).

In today's global monetary system, the emergence of the renminbi (along with other developed- and emerging-market currencies) as a potential reserve currency would expand and diversify the supply of reserve assets, enabling central banks to maintain large buffers against financial shocks while allowing the United States to avoid issuing, as now, a large and growing bulk of the world's safe and liquid claims, and thus bearing the burden of an ever-expanding, and ultimately questionable, debt to the rest of the world.²

The Challenge

History shows that the international monetary system is prone to periodic crises. The 1930s brought the collapse of the reserve currency system built around the gold standard. The 1970s saw the breakdown of its successor, the Bretton Woods system. And forty years later, today's international monetary system is beset by economic tensions that look quite familiar. Indeed, given the scale of reserve accumulation, cross-border financial integration, and banking leverage, the crisis facing today's system may be the most serious of all.

If economic history teaches us to expect trouble, economic theory helps us understand its sources. Two principles from theory are important here. One concerns the determinants of the demand for reserves, and the other the supply of reserves.

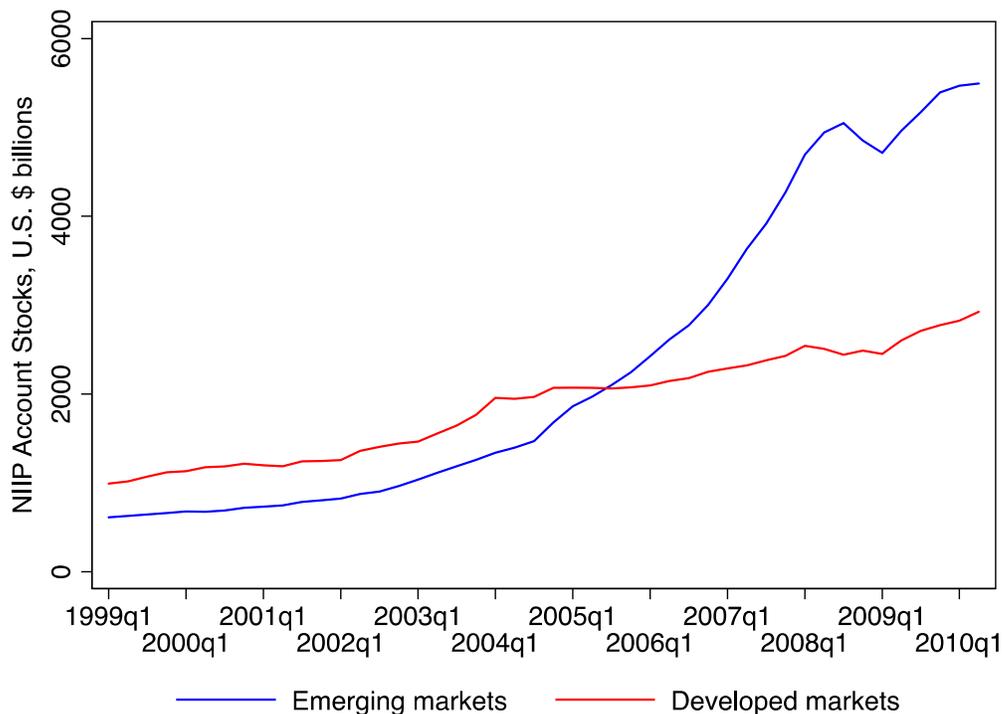
On the demand for reserves, we know from a great deal of research, some of it my own, that the last 20 years, and especially the post-2000 era, has seen an explosive growth.³ Most of this growth has taken the form of demand for international reserves denominated in U.S. dollars, and most has occurred in emerging markets (see Figure 1). Since 1990, the ratio of

2. For deeper discussion and historical perspective on the U.S. dollar's fate as a reserve currency see Barry Eichengreen, *The Rise and Fall of the Dollar and the Future of the International Monetary System* (New York: Oxford University Press, 2011).

3. Maurice Obstfeld, Jay Shambaugh, and Alan M. Taylor, "Financial Stability, the Trilemma, and International Reserves," *American Economic Journal: Macroeconomics*, vol. 2, no. 2, 2010, pp. 57–94.

reserves to GDP in the advanced countries has held steady at about 4%, but the emerging markets' reserve ratio has more than quintupled, rising from 4% to more than 20% of GDP.⁴ The emerging markets' weight in the world economy has massively increased over that time (and has done so especially quickly since the 2007–2009 crisis), so a composition effect adds impetus to the growth. Since 1990, global holdings of international reserve assets have risen fully 60-fold, from \$200 billion to roughly \$12 trillion.⁵

Figure 1. Reserves/GDP in EM and DM Economies



Source: Manoj Pradhan and Alan M. Taylor, “The Great Rebalancing,” *Emerging Issues*, Morgan Stanley, February 18, 2011.

4. Ibid.

5. Alan M. Taylor, “The Financial Rebalancing Act,” *Foreign Affairs*, vol. 90, no. 4, July/August 2011, pp. 91–99.

Explaining the motives behind this reserve growth has proved hard[. Conventional analysis assumed that countries hold reserves to ensure access to a given number of months of imports, or to insure against a drying-up of short-term capital inflows in a “sudden stop” event. But variables such as the trade balance or even short-term debt have not changed enough to explain the huge increase in reserves over the past two decades. Instead, recent reserve accumulation seems to have been motivated also by a desire for insurance against capital flight in a world of semi-fixed exchange rates. In particular, three main factors—financial openness, domestic financial depth (M2/GDP), and the rigidity of the exchange rate—have conspired to drive up demand for reserves relative to GDP.

The worry is that reserve accumulation might continue unabated. There is little sign that emerging economies will give up their “fear of floating” and embrace flexible exchange rates. A corollary of a fixed exchange rate, however, is that a country facing pressure for appreciation will have to sell its currency and accumulate foreign exchange reserves in the process. Similarly, a country concerned about future downward pressure on its exchange rate will have to accumulate a war chest of foreign reserves to fight off speculative attacks. Either way, fixed exchange rates result in large reserve accumulation.

What are the more fundamental explanations for this reserve accumulation and aversion to floating exchange rates in developing and emerging economies? Economists have identified many factors. Empirical evidence suggests that poor “institutions” on various metrics—countries with weaker rule of law, poorer governance quality, less secure property rights, less transparent financial systems—may suffer not only a lower mean, but also a higher variance in terms of their output path, and other correlates. Solving some of these problems would likely diminish the risks that lie behind the risks of sudden stops and

sudden flights: in other words, if investors (domestic as well as foreign) perceived a more friendly and reliable then regime emerging markets might be able to reduce their reliance on reserve holdings. This transition, essentially the graduation from EM to DM status, is historically often a slow process to liberalize economies and provide more effective institutional infrastructure and safeguards for investors. But until that transition is complete, large cash reserves may continue to provide EM policymakers with the cushion against capital account crunches that enables them to cope with the underlying episodic volatility.

Absent reforms emerging economies may continue to fear the risks of volatile capital flows, and even with reforms, change might be slow: countries well on the road to DM status thanks to better records of economic reform, like now-OECD members South Korea and Chile, still maintain large warchests. And it is fair to say that EM economies may have plenty more room in the future for both financial openness and M2 ratios to grow to even higher levels. Yet another reason to expect further rapid reserve accumulation is that reserve-hungry emerging economies will grow faster than the reserve-supplying developed ones—not only for technological and demographic reasons, but because of the possibility that the emerging world itself might expand by gaining new members from the lower tiers of developing countries. Adding all these forces, one arrives at a vision of a potentially nearly endless future demand for reserves, which raises the question of where and how the supply can be provided.

A Brief History of Reserve Currencies

Today's challenge of reserve supply, as I suggested earlier, is essentially a repeat of the problems that undermined the two previous great reserve currency systems—that is to say,

a modern variant of the Triffin paradox.⁶ As in the past, the question is how, where, and with what deleterious effects can an ever-growing supply of the world's chosen reserve asset be procured?

Under the classic pre-World War I gold standard, the nature of gold as a pure “outside” asset effectively eliminated credit risk. It was physical, real, and so impervious to government policies that undermine the value of paper money. But the global economic system entered a slippery slope when during the interwar period gold was supplemented with “key currency” reserves to address problems of inadequate, or ill-distributed, liquidity after the war. In essence the underlying problem—one that dates back to the so-called “Long Depression” of the 1870s–90s—was then, as now, a case of demand for reserves outstripping supply over a long period. Gold discoveries were few but the pace of global economic growth was accelerating with the intensification and geographic spread of industrialization. A scarcity of gold relative to goods implied secular deflation, with all of the macroeconomic problems that entailed. As a way of staving off such deflation, creating synthetic paper liquidity to augment the supply of reserves made some sense—but at the cost of creating new problems.

The new paper claims could perform their role as additional reserve assets only if people believed that they were fully convertible into gold. This belief lasted barely five years. As the core economies issued an expanding supply of paper reserves, they undermined the credibility of such reserves as a store of value. In the investor's eye, gold remained the true safe asset; and in times of distress, fear of paper depreciation could create a run to gold.

The 1930s crisis delivered that blow.

6. Emmanuel Farhi, Pierre-Olivier Gourinchas, and H el ene Rey, *Reforming the International Monetary System* (London: CEPR, 2011); Maurice Obstfeld, “The International Monetary System: Living with Asymmetry,” NBER Working Paper no. 17641, December 2011.

And in Triffin's view, that was the critical moment. The British departure from gold in 1931 was the first event to meet the criteria for his famous paradox: By having so many sterling liabilities in the hands of counterparts, so little gold on hand, and rapidly declining fiscal credibility, sterling's success as a key currency had created the conditions for its ultimate failure.

The Bretton Woods conference of 1944 sought a solution to this problem in the shape of buffers and frictions that would limit the threat from a volatile capital account to prevent a repeat meltdown, combining this with a design that would avoid the deflation bias of the gold standard and allow liquidity to be augmented as needed. The core principle of the new system was that currencies would peg to the dollar and the dollar would then be pegged to gold. In this way, gold was retained as the anchor of the system, but fiat currencies could be held as (supposedly gold-linked) reserve assets, greatly increasing the supply of available reserves.

With the United States emerging as the undisputed economic and political power after 1945, its level of trustworthiness and fiscal strength could sustain the system for much longer than sterling had managed in the interwar period. Pervasive capital controls, central to the design of the Bretton Woods system, limited financial flows across borders, reducing the pressure on the fixed exchange rates that were essential to the claim that a franc or a pound or a dollar all had a fixed value in terms of gold. But as early as 1960, an eroding U.S. net foreign asset position—and the upward trend of foreign claims against the United States beyond the level of U.S. gold holdings—led Triffin toward his intimations of the mortality of the Bretton Woods system.

And indeed, by around 1970, the stage was set for a repeat of 1931. The contradictions of an open current account and a closed capital account rose to the fore: as cross-border trade and investment grew, opportunities to evade capital controls grew, too, and offshore foreign-exchange trading introduced leakage into the system. Capital controls, the premise for a system of fixed exchange rates, were breaking down. The currency most at risk of a devaluation was the dollar, precisely because of the dilemma that Triffin had explained: the world economy had grown rapidly in real terms, driving up the demand for U.S. dollar reserves so much that at one point, as Triffin noted, the total claims on the United States, if liquidated by all counterparties, would exhaust the U.S. gold supply. At that point, it would be questionable whether the United States could fiscally sustain, or even obtain, enough gold to cover its obligations if a “run” were to materialize.

Of course, this logic proved to be self-fulfilling. By the late 1960s, the United States could maintain dollar-gold convertibility only with the help of Germany, which sold gold in London whenever the metal threatened to rise above its permitted \$35-per-ounce level. In 1971, Nixon succumbed to the inevitable and took the United States off the gold link.

The world then entered the next phase, pure fiat reserve currencies plus floating exchange rates, at least in the developed world. Like the Bretton Woods system, the new arrangement had its own internal logic. Floating exchange rates provided a way of absorbing the effects of cross-border capital flows and reduced the need to maintain exchange-stabilization funds. As a result, the demand for reserves still rose in the 1970s and 1980s, but not precipitately, and not out of line with global growth. The demand for reserves in this period was further limited by the fact that the world economy was still dominated by slower-growing mature countries. And, at least after the Great Inflation of

the 1970s, debt and inflation levels were moderate enough that all of the key countries had the fiscal and monetary credibility necessary to sustain the promise of a stable real value that, along with convertibility and legal protection, forms a key condition for reserve currency status.

In sum, the demand for reserves was modest and the supply of reserves was adequate. Thus did the system muddle through into the 1990s, awaiting the next great transformation, which would bring us to the most recent crisis of the international reserve system.

Back to The Present

The seeds of this crisis were planted during the 1997-98 emerging-market turmoil. Having seen financial instability trigger sharp economic contractions, humiliating interactions with the IMF, and even, in the case of Indonesia, political revolution, the rising emerging-market powers like Malaysia Korea, and China, resorted to massive reserve war chest accumulation to avert a replay of those times. Whatever the social cost of otherwise uninvested savings, the stability benefits of the reserve war chests to governments and their policymakers are not hard to recognize. The emerging economies have emerged out of the backwash from the 2008 Crisis and subsequent Great Recession in the DM world in remarkable shape and quickly headed off on a more secure recovery track in 2009-12, which few would have predicted beforehand. Usually, throughout modern history, a crisis in the DM world has precipitated at least one crisis somewhere in the EM world; not this time.

However, even as they provided this vital insurance, the EM warchests exacted a price on the developed world. As the emerging economies accumulated their reserves, they either

financed developed-world consumption or investment in more risky assets. High consumption put some developed countries on track to deteriorating solvency, and even the switch to riskier assets exposed developed countries to greater volatility. Both chickens have now come home to roost, with most DM economies facing fiscal constraints and sluggish growth.

Most worryingly, these are very large chickens—much larger than were seen during the collapse of either the gold standard in the 1930s or the Bretton Woods system in the 1970s. In comparison with those early eras, the intertwining of national balance sheets has grown to monumental proportions. As shown in Figure 2, gross asset-to-GDP ratios are now far above anything seen during recorded history.⁷ Adding further danger to the mix is the intermediation of much of the world’s financial asset and liability linkages through banks whose leverage ratios have grown astronomically compared to known history.⁸ Moreover, the process of cross-border financial integration is potentially subject to a worrisome feedback. The larger these balance sheet connections grow, the more vulnerable emerging economies are to a funding crisis. Such vulnerability drives emerging economies to accumulate more reserves, thereby further expanding cross-border balance-sheet linkages further and setting off the next twist in the cycle.

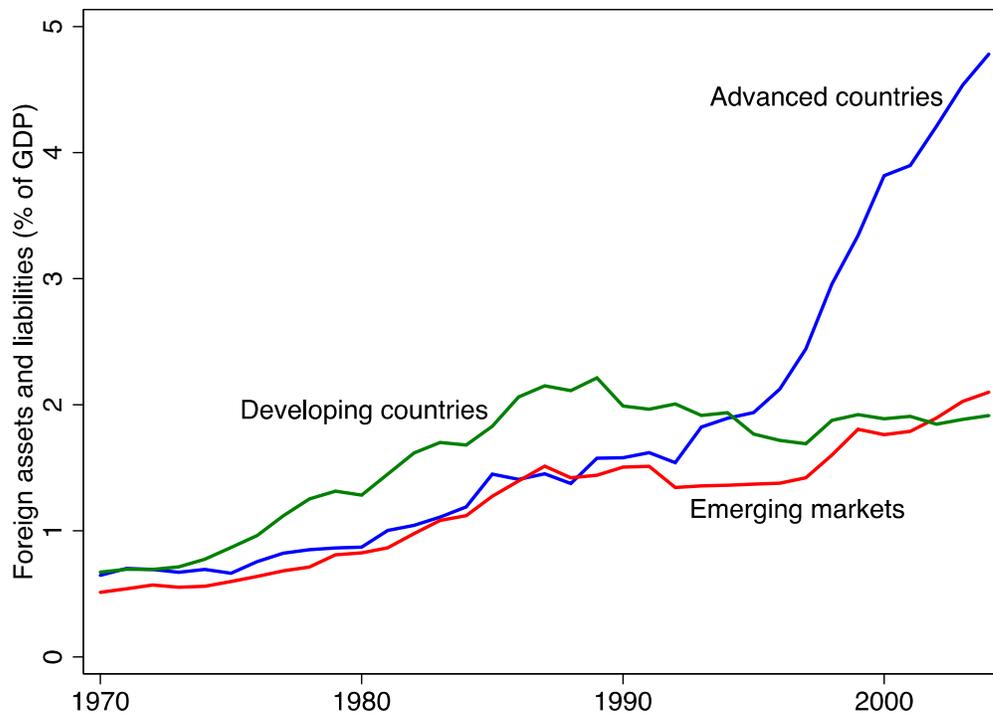
Could this all end in disaster? Admittedly, and fortunately, the response of policymakers in this crisis, freed from the gold standard or other orthodoxies, and more inclined toward multilateral cooperation, has helped offset, at least for now, the risks of a full reserve

7. Maurice Obstfeld and Alan M. Taylor, *Global Capital Markets: Integration, Crisis, and Growth* (New York: Cambridge University Press, 2004); Philip R. Lane and Gian Maria Milesi-Ferretti, “The External Wealth of Nations Mark II: Revised and Extended Estimates of Foreign Assets and Liabilities, 1970–2004,” *Journal of International Economics*, vol. 73, November 2007, pp. 223–50.

8. Moritz Schularick and Alan M. Taylor, “Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870–2008,” *American Economic Review*, vol. 102, no. 2, April 2012, pp. 1029–61.

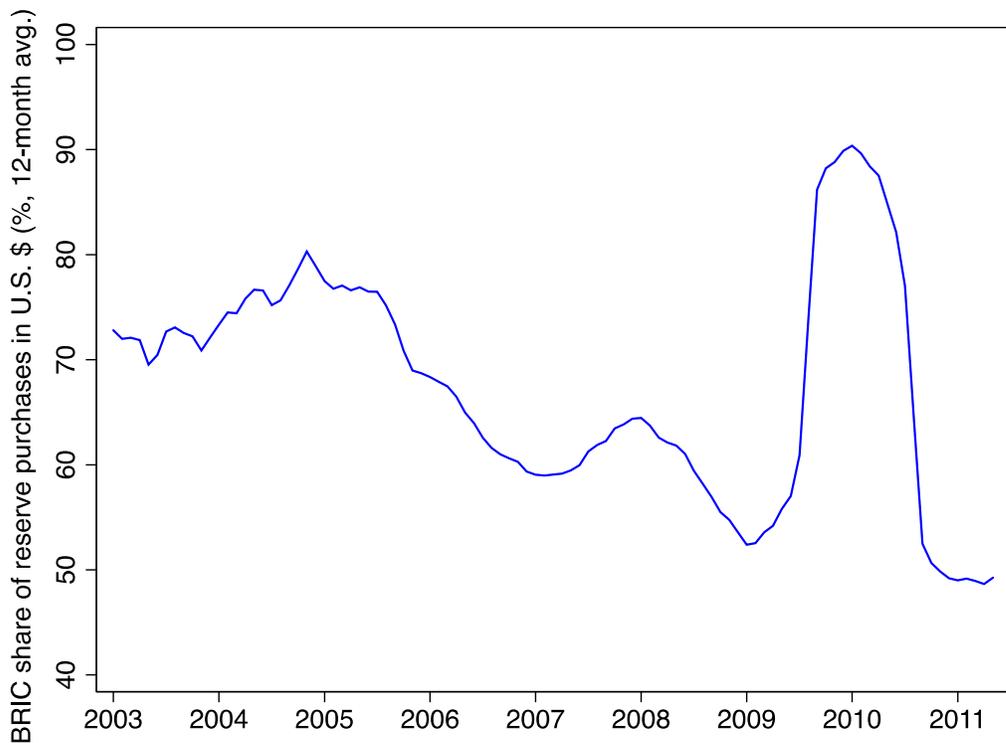
system meltdown of the kind seen in the 1930s or 1970s. Despite much public questioning of the dollar's reserve currency status, there has been no move to dump dollar holdings. The Council on Foreign Relations publishes quarterly chart books tracking the currency composition of BRIC central bank reserves. These show a gradual withdrawal from the dollar, but nothing approaching a run (see Figure 3).

Figure 2. Foreign Assets and Liabilities



Source: Robert C. Feenstra and Alan M. Taylor, *International Economics* (New York: Worth Publishers, 2007), p. 411.

Figure 3. Reserve Purchases by China, Brazil, and Russia: Percentage in Dollars



Source: Author's calculation

However, if we were to return to the pre-crisis trajectory of chronic emerging-economy reserve demand growth, the logic of the Triffin problem may become inescapable. And if that is so, and an eventual dollar panic is to be avoided, the world must confront the fundamental pressure, the “North-South” or EM-DM asymmetry in the global monetary system: a growing EM world cannot rely on a stagnant DM world to satiate an expanding need for insurance ad infinitum. Sooner or later, the EM world must bear the risk of issuing some of its own insurance.

Paths Toward a New Monetary Architecture

With that backdrop of historical and theoretical insights, we can now start to consider ways in which we might back our way out of the current crisis. The argument is presented in steps, almost as a process of elimination, leading to the conclusion that any feasible solution must involve more than just the current reserve countries. Further, for scale reasons alone, China could make a huge difference by emerging as a supplier of reserves. This would make renminbi internationalization a stated goal of Chinese policymakers, and it could be a desirable outcome from a global standpoint as well by reducing demand pressure on the current small set of reserve suppliers and broadening risk diversification. Further, I argue that any new system might be more effective—and better insulated from future variants of the Triffin paradox—if managed through an international cooperative framework.

What arguments lead to this conclusion? Of course, one way to curb the destabilizing rise in demand for reserves would be to deglobalize the world economy. If leaders put the financial liberalization gearstick into hard reverse by imposing capital controls, the demand for reserves would moderate. But this would risk negative externalities, such as the damage done in the form of lost gains from trade in the global economy by several decades of near autarky after the 1930s; this would seem to most like a price not worth paying again. And in the end, the autarky was not watertight enough to prevent the ultimate dysfunction of the Bretton Woods system.

If we set aside the autarky option, what about the possibility that voracious emerging-economy demand for reserves could moderate on its own? If we are lucky, the huge accumulation of reserves by emerging economies in the past decade may cause

policymakers to feel safer, and so slow further purchases. Moreover, the asymmetry between developed and emerging markets may go through a structural shift, with fundamentals in the developed world weakening and some in the emerging world strengthening.

In my research with Morgan Stanley, we identified several ways in which one could argue that “EMs are the new DMs.”⁹ The conclusions are nuanced. The measures by which EM economies are quickly catching up with developed economies include education, health and longevity, fiscal strength, monetary stability, and real growth. At the same time, however, because institutional change is generally a slow process, increases in EM political and economic freedoms, as measured by factors such as democracy and rule of law, though appreciable in some cases, have generally tended to lag and move more slowly. But such governance issues notwithstanding, the resilience of growth in emerging economies during the recent crisis may engender confidence among emerging-market policymakers, especially given that in some cases the developed markets are backsliding into greater volatility. If the insurance seekers are starting to feel more robust than the insurance providers, perhaps we are starting to see the end of the fundamental asymmetry, real as much as perceived, which drove the great reserve accumulation of the past decade, and the associated global imbalances?

It’s an appealing thought, but real progress will be evident and verifiable only when emerging markets stop buying insurance from developed markets. There is no clear sign of that yet. Moreover, the emerging markets are only likely to buy less insurance from developed ones if they have somebody else to buy from. That demonstrates the need for a

9. Manoj Pradhan and Alan M. Taylor, “Are EMs the New DMs?” *Emerging Issues, Morgan Stanley*, May 6, 2011; Manoj Pradhan and Alan M. Taylor, “The Great Rebalancing” *Emerging Issues, Morgan Stanley*, February 18, 2011.

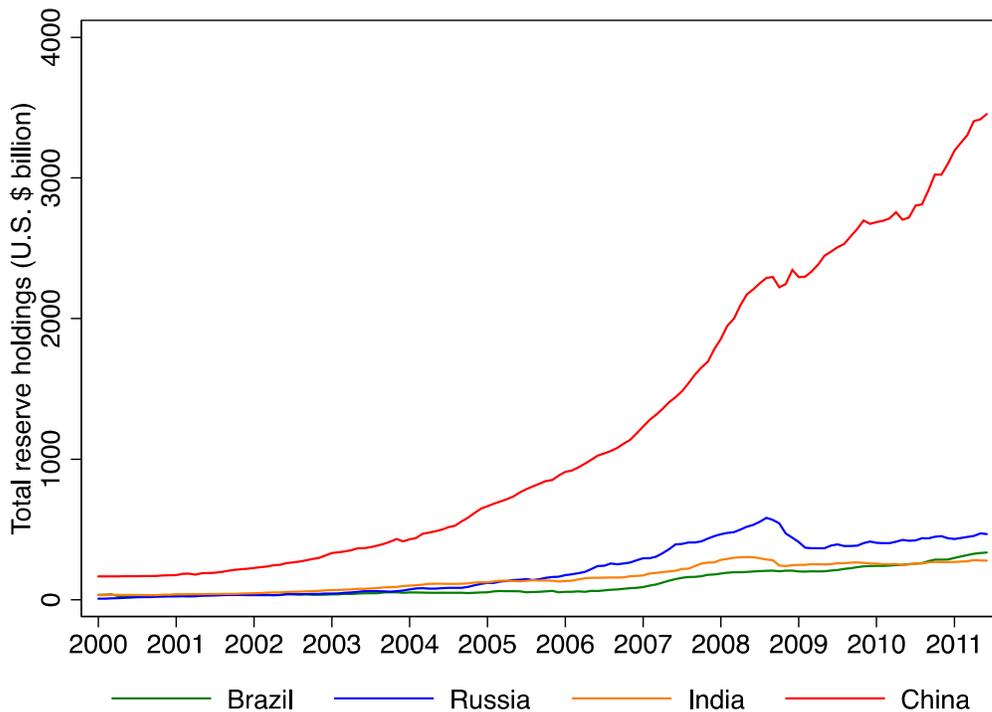
new supplier of reserve currency. History certainly says that there doesn't have to be only one such currency in use at any time, and the transition from sterling to the mixed basket of key currencies starting in the 1920s attests to that. But if an ordinary currency is to become a reserve currency, what criteria must it satisfy?

The standard hurdles that a prospective reserve currency must overcome are tall. The currency must be credibly stable in terms of maintaining its real value against a meaningful numéraire (goods basket). Hence the country must be in a credibly sound fiscal position, so that the risk of monetization is small. The currency must be convertible and the country must have reasonably effective rule of law, so that investors know that the market will be unimpeded and funds easily moved out as well as in. Both of these conditions necessarily rest on deeper institutional underpinnings—which as already noted, are absent or incomplete in many emerging markets—such as reforms to government, accountability, transparency, the legal system, education, and corporate governance that are essential to sustain the confidence of investors.

Although accomplishing all this change may sound like a formidable undertaking, the good news is that not all of these conditions have to be met now. Instead many of them can—and indeed can only—be achieved gradually over the course of years, and more likely decades, so that reputations can be established, as history has shown. Thus, although it is well known that the United States assumed reserve currency leadership from the U.K. in the space of only about ten years around World War I, it had spent more than 100 years since independence gradually building up its fiscal capability, a reputation for sound money and sovereign creditworthiness, sound legal structures, and a position as an open financial center.

Given these conditions, what are the likely candidates for reserve currency status? The pressing need to supplement the currently dominant small group of key currencies—in addition to the U.S. dollar, the euro, the Japanese yen, and to a lesser extent the British pound and Swiss franc—could be met in the short term by other developed-country currencies. A set of commodity-rich countries that includes Australia, Canada, Norway, and Sweden could provide compelling, safe AAA assets for the foreseeable future given their strong fiscal positions and the backstop of mineral wealth. Indeed, the trend is already evident, and although the official sources such as the International Monetary Fund’s COFER data make it difficult to track reserve usage in these currencies, it is a poorly kept secret that substantial diversification of emerging-market reserve assets into these currencies is already taking place.

Figure 4. Estimated Reserve Holdings by BRIC Countries (\$billion)



Source: Domestic central banks, Council on Foreign Relations estimates.

However, this process has some pretty clear limits. Unlike the United States, Europe or Japan, these commodity-rich developed economies are small relative to world GDP, ensuring that their capacity to create AAA reserve assets must ultimately be quite limited relative to expanding EM needs. They simply do not have the scale to quench emerging economies' thirst for insurance. They are part of a solution, perhaps, but only a part. This brings us ultimately to the emerging markets having to play a larger role in the global reserve system if possible.

Thus, by a process of elimination, we arrive at the path that is most likely to lead to a stable new financial architecture: the incorporation of the emerging world into a system of more diversified system of global liquidity provision. “North-South” insurance (from DM to EM) is likely to become more “South-South” (within the EMs), just as trade and financial linkages also realign along those axes. Because of considerations of scale, China is likely to be the key player in this evolution. China alone represents a tenth of global output and half the output of the BRIC bloc of countries. Relative to that of the other three original BRIC economies—Brazil, Russia, and India—China's reserve accumulation has been vast (see Figure 4). And as argued later, China has an interest in becoming a supplier of reserves assets, and the world has much to gain.

Multilateral or Unilateral?

Some commentators embrace the idea that China could play a larger role in the global monetary system, but also argue that this be channeled through multilateral institutions. A

reweighting of voting quotas at the International Monetary Fund recently gave China a larger voice within the IMF, and the French government has used its presidency of the G20 to explore the idea that China's currency could be included in the SDR, a currency unit composed of a basket of four reserve currencies (dollar, euro, yen, and pound) that is issued by the IMF and held by central-bank reserve managers. Both the IMF, which provides members with infusions of reserve assets when they face crises, and the SDR, which is itself a reserve asset, are mechanisms through which China or other emerging economies could help supply global liquidity. But while these multilateral mechanisms sound attractive, they each face obstacles.

The limitations of the French-backed SDR discussion are most obvious. Whether countries in the future hold renminbi reserves directly or through an SDR basket is an accounting issue, not one with real economic impact. In the absence of SDR reform, reserve managers can create their own unofficial renminbi -tinged SDR by holding renminbi alongside the unreformed currency basket. The core issue is whether the renminbi meets the criteria demanded of a reserve asset as described. If it does, reserve managers will hold it, inside the SDR or out. If it does not, they will not hold it, and nor will it be possible to make the case for including renminbi in the SDR.

The obstacles to the idea of greater Chinese participation in the IMF or other mechanisms for cooperative reserve pooling are more subtle. In principle, the idea is substantive and attractive. Risk pooling across many countries, on a regional or global basis, could dramatically reduce the amount of reserves needed and, in so doing, ease the strains being put on the reserve currency issuers. To be sure, sometimes there is a global shock, such as the events of 2008, a part of which can hit everyone and which is, by

defintion, uninsurable. But there are also local shocks where the ability to draw on a common pool of resources reduces the amount of liquidity that countries collectively must hoard.

The IMF was designed to fulfill exactly this risk-pooling function. But it has encountered challenges in carrying out its mission because of both scale and politics. To handle crises today, at least in large economies, the IMF's lending capacity would have to be radically expanded. And for countries to be willing to trust the IMF backstop, the credit lines would have to be guaranteed—that is, not subject to policy conditionality or political manipulation. It is something of a contradiction that the IMF is both a provider of insurance and a setter of conditionality, because the vigor with which it pursues the first goal can be canceled by its strictness on the second. So there is an argument here for separating the insurance fund from the IMF's conditionality mechanisms.¹⁰

This is not just an IMF problem, however. Any regional design, say for an Asian reserve pool, runs the same risk that members may not be fully confident that the strong will help the weak: that the credit line will be there when they need it if the other members of the pool have veto power. An instructive example is the recent case of Europe's tangled and torturous negotiations over the financing terms of the peripheral bailouts (EFSF, ESM, etc.). The lack of cross-border cooperation, and behind it the absence of sympathy between weak and strong countries, suggests the scale of these political difficulties, even in a European Union project that has ostensibly more than 50 years of cooperation and "common destiny" under its belt. In reality, the lessons drawn from 1997 and other recent crises by most EM countries were precisely contrary: not to put too much trust in external

10. Eswar S. Prasad, "Role Reversal in Global Finance," presented at the 2011 Economic Policy Symposium of the Federal Reserve Bank of Kansas City, Jackson Hole, Wyo., August 2011.

funding (from the IMF or elsewhere) and instead shift to national self-insurance on a massive, impregnable scale.¹¹

Ultimately, as the EU is now discovering, any putative global system of liquidity provision will ipso facto entail some kind of an agreement to cooperate fiscally. To be credible, the liquidity pool must be backstopped by member governments, which is to say, by their taxpayers. What matters is whether it can be designed in such a way that liquidity suppliers will want to fund it and to underwrite it against losses, and that liquidity demanders will trust that the liquidity will be there when they need it as effectively as if they had hoarded reserves for themselves. Failure on the first point will scare away funders who worry that the system could become a global “transfer union” rather than a risk-sharing system; failure on the second point will scare away potential borrowers, who will conclude that they are better off hoarding reserves unilaterally. Recent experience in Europe on the first, and in the emerging markets on the second, should leave no one feeling complacent about the ease with which such a risk-sharing pool can be established. But, as economist Stanley Fischer has argued, a system could be designed to mitigate both borrower and investor moral hazard.¹²

In sum, a realistic assessment begins by conceding that the first-best outcome of global, cooperative risk sharing and liquidity management may be a task for future generations. For now, perhaps we need to consider a more plausible second-best outcome—one in which the emerging world, including China, can help offset, even if not as part of a global framework, the current asymmetry of international liquidity provision.

11. Martin Feldstein, “A Self-Help Guide for Emerging Markets,” *Foreign Affairs*, vol. 78, no. 2, March/April 1999, pp. 93–110.

12. Stanley Fischer, “On the Need for an International Lender of Last Resort,” *Journal of Economic Perspectives*, vol. 13, no. 4, Autumn 1999, pp. 85–104; Prasad, “Role Reversal.”

The Opportunity for China

China has prospered from its strategy of reserve accumulation and related export surplus. But the strategy has drawbacks. Open-ended reserve accumulation has left China exposed to an eventual devaluation of the dollar. Reliance on exports has left China exposed to a downturn in rich-world consumption—a dependence that proved costly in the crisis of 2008–2009 and may again be a weakness if the euro-zone difficulties deepen. China therefore has an incentive to rethink both halves of its model—to accumulate fewer reserves, on the one hand, and to run a smaller current-account surplus on the other. It seems that recent steps—such as faster renminbi appreciation (in part to manage inflation), the shape of the new Five-Year Plan (focusing on domestic demand), and announced shifts in reserve strategy (a slowing down of purchases)—will move China in this kind of direction. If so, other emerging economies may well follow.

The internationalization of the renminbi could support this shift in strategy. It would allow China to contemplate moving from being a gross (and net) acquirer of reserves, to becoming a gross (and eventually even net) issuer of reserves. From China's perspective, this would reduce exposure to dollar depreciation. From the world's perspective, this would start to move the global economy away from the dangerous asymmetry between developed and emerging markets, and back toward balance in the management of risk and insurance.

China's position is such that it has both advantages and disadvantages in achieving this transition to reserve-currency status. Its advantages are first and foremost scale. China, if it were a reserve currency country, could issue a great deal of safe assets and provide a lot of insurance to those still demanding it. China also has an enviable record of economic growth and stability stretching back two decades. It has a good fiscal position, and is an

international net creditor with a good (and improving) sovereign rating. China has also achieved relatively good performance in terms of price stability, at least when one allows for the fact that fast-growing emerging countries are inherently more inflation prone (due to the Balassa-Samuelson effect), which tends to force real exchange-rate appreciation. With a willingness to tolerate more nominal exchange rate flexibility, China can moderate those inflation pressures even more. Finally, China is running a number of expanding pilot programs to permit the international use of the renminbi for trade settlement, an offshore currency market to develop in Hong Kong, and some permeability in hitherto tight capital controls that would allow nonresidents to get money in and out.

Even so, we must not get carried away with these signs of progress. The track record of economic reform is short: twenty or thirty years is the blink of an eye when it comes to establishing credibility for reserve-currency purposes. The steps to liberalize the use of the currency across the border are still in their infancy, and much more liberalization would be needed for reserve managers to feel that they have the necessary freedom and security to use the renminbi as a reserve vehicle on a large scale. And to the extent that reserve currencies have historically been associated with economically and politically liberal societies with strong rule of law and property rights, and other institutional quality attributes, it is obvious that China, like almost every other emerging economy, is making progress but still has considerable ground to cover. Most obviously, the simplest proof of progress will come from the data: when China slows down the net acquisition of reserves, we will be in a position to anticipate, a little further down the road, its ability to become a gross or even net issuer of international liquidity, on a small scale at first and then on a

larger scale, and thus ultimately play a leading role in resolving the great global asymmetry that bedevils the global monetary system.

Conclusion: What's In It for China and the World

This paper has focused on the third, and perhaps most serious, crisis affecting the world's system of international liquidity provision—a crisis that differs from its predecessors 40 and 80 years ago in both scale and scope. Much of the additional danger this time has stemmed from the key asymmetry between the developed and emerging worlds. This facet of the problem was largely absent from the previous great systemic crises, given the relative isolation and minor economic weight of the emerging economies in those times. Even so, recognizing the nuanced differences, we can still see a common thread in all these crises, a manifestation of the Triffin problem, which sees the problem as one of fiscal limits to reserve supply by ostensibly credible and creditworthy core countries in conditions of asymmetric growth in demand from reserve-accumulating countries. Only this time around, the problem is occurring on a supercharged scale. The global imbalances of the past decade, the ensuing global financial crisis, and the asymmetric recovery in growth and sovereign stress are the manifestations of these strains.

The instability of the current system places high responsibilities on policymakers to find a better solution to the problem of international liquidity. There are gains to preserving an open world system of commerce and finance; a shift to global autarky akin to the 1950s would be almost unthinkable and very costly. But the status quo has not been without costs of its own. The stability of the international financial system would be enhanced by shifting to a system that does not load an ever-growing emerging-world insurance demand onto a

small group of ever more strained net debt suppliers. That will mean either expanding the supply of insurance in the form of credible reserve liquidity from more developed and ultimately some large emerging-market providers—or finding ways to better pool, share, or otherwise limit the underlying emerging-market risks so as to moderate the perceived need for insurance.

History teaches us that previous large shifts in global reserve currency arrangements happened at times of geopolitical conflict, changes in economic leadership, and moments of retreat toward economic autarky. We have to hope that world leaders can do better this time. We have a number of advantages at our disposal today, however, that we did not have before, including an array of mature international institutions (such as the IMF), countries with a demonstrated commitment to cooperate in times of crisis (such as the London G20 summit), and, most importantly, an understanding of macroeconomic policymaking that is different from that constrained by previous systems of thinking (such as the gold standard orthodoxy or even the Bretton Woods logic).

Given its economic scale, China needs to be a player in this effort to construct a more stable global system, as its asymmetric position alone is a large part of the current imbalance or asymmetry. Given its stated ambition to see its currency internationalize, China seems at least ready to take some steps. But there is a long way to go, and it is fair to ask whether the effort is justified for China. In noneconomic terms, commentators may speak of the geopolitical status that attaches to being a reserve currency country: how it gives a country a “seat at the table,” and may be seen as a badge of global economic leadership. But, to my mind, these purported gains are now the least of it from China’s

perspective. China is already at the table and is having to take on the responsibilities of leadership.

Other more tangible benefits are at stake. If China's currency does attain reserve status it will bring significant economic benefits, starting with the various forms of "exorbitant privilege" that attach to reserve currencies. In my own research I have found that the international status of the U.S. dollar and to some extent the Japanese yen reduced borrowing costs substantially.¹³ And to that gain one can add the cost savings and foreign-exchange risk mitigation that arise in commerce and finance when transacting in your own currency. Having a reserve currency also benefits a country during periods of distress, given that in times of crisis it is the reserve currencies that attract investors. This safe-haven benefit, a kind of anti-sudden-stop insurance, is arguably at least as important as the income effects of cheap funding (even if it may also bring unwelcome appreciation pressure, as, for example, at various times, the German, Japanese, and Swiss authorities have noticed).

For these reasons, if China can make the economic, political, and institutional changes needed to support the renminbi as a credible reserve currency, it could be accompanied by a substantial increase in the stability of the global financial system, a gain not only for the world, but also for China.

13. Christopher M. Meissner and Alan M. Taylor, "Losing Our Marbles in the New Century? The Great Rebalancing in Historical Perspective," in *Global Imbalances and the Evolving World Economy*, edited by Jane S. Little (Boston, Mass.: Federal Reserve Bank of Boston, 2008).