7

Currency Wars

That men would die was a matter of necessity; which men would die, though, was a matter of circumstance, and Yossarian was willing to be the victim of anything but circumstance. But that was war. Just about all he could find in its favor was that it paid well and liberated children from the pernicious influence of their parents.

Catch-22, Joseph Heller

In the fall of 2010, Brazil was reeling from a sharp currency appreciation and was caught in a pincer-like grip between two big economic powers. On one side, the Chinese were not permitting their currency to appreciate and were trying to deflect capital inflows. Because Brazil's exports of commodities such as iron ore and soybeans are largely tied to China's growth performance, the Brazilian currency, the real, had become a "proxy play" on the renminbi. Investors were in effect betting that strong growth in China would boost growth in Brazil as well, lifting the value of the real. On the other side were the Americans, whose central bank was pumping money into the economy, keeping interest rates low, and setting off expectations of dollar depreciation. The Fed's actions were making it easier for investors to get cheap financing that they could use to make bets on currencies that they expected would appreciate in value, including the real.

From the beginning of that year through the early fall, the Brazilian real had risen in value by about 25 percent relative to the U.S. dollar, making the real one of the strongest performing currencies in the world. A strong currency is a mixed blessing. It makes imports cheaper and raises the purchasing power of residents. In contrast, manufacturers and exporters were howling at the huge hit to the competitiveness of their products in markets around the world, including in Brazil itself. They faced two unwelcome choices. They could raise the foreign prices of their products to meet their labor, material, and other costs, all of which still had to be paid in reais, while their revenues were falling in terms of reais (reais is the plural form of the real; an appreciation means fewer reais per unit of foreign currency). This action would mean a loss in market share to producers from other countries, especially China, whose products would be cheaper. The other equally unpleasant alternative was to change foreign prices only moderately and, instead, take a hit on their profit margins.

On September 27, 2010, Brazil's finance minister Guido Mantega took the stage at an event in São Paulo, where he spoke to the country's industrial leaders ahead of presidential elections that weekend. Frustrated by the complications caused for Brazil by the policies of other countries, he used these words to characterize the situation as he saw it: "We are in the midst of an international currency war, a general weakening of currency. This threatens us because it takes away our competitiveness."

The martial allegory struck a chord, perfectly capturing the sense that currency management had become a tool of international economic warfare rather than just a matter of domestic policy. Headlines in all the major newspapers followed and crystallized anger about U.S. monetary policy, as the Fed was seen as impervious to the fallout of its actions on the rest of the world. Mantega had neatly summarized the sense of conflict, but the issue had been brewing for a while. It would dominate the discussions in the weeks leading up to the next meeting of world leaders at the Summit of the Group of 20 (G-20), a forum for the major advanced and emerging market economies.

Timing Is Everything

The Korean government was proud to host the November 2010 G-20 Summit, the first country outside the major advanced economies to host this august gathering of world leaders. The government had made extensive preparations and, with the help of many committees and high-caliber academic advisors, had come up with a plan to put its stamp on the world of global finance. The hosts were eager to do this by steering the G-20 away from short-term crisis management, now that the worst of the financial crisis was over, and bringing long-term issues to the fore. The theme of the summit would be the development of "global safety nets." These were to include a set of mechanisms to reduce emerging markets' need to self-insure by building up foreign exchange reserves and improved programs at the global financial institutions to assist countries in need of assistance, without a raft of intrusive conditions attached to the loans.

A couple of months before the summit, which was set for November 11–12 in Seoul, these grand plans started to fall apart.

The U.S. Federal Reserve had been worried about the anemic pace of growth in the U.S. economy and, with unemployment stubbornly stuck in the range of 9.5–10 percent, felt that it was not delivering on its dual mandate—maximum employment consistent with price stability. Fed Chairman Ben Bernanke indicated in his speech at the Jackson Hole conference on August 27, 2010, that the Fed was ready to consider additional monetary stimulus measures if the economy stayed weak.

Then, with spectacularly bad timing from the point of view of international diplomacy, Quantitative Easing Round 2—or QE2—was announced on November 3, about a week before the Seoul summit. QE2 involved printing money to buy \$600 billion worth of long-term Treasury bonds with the intention of driving up their prices and, consequently, driving down long-term interest rates. This followed on the heels of QE1, which lasted from November 2008 through March 2010 and during which the Fed purchased a total of \$1.25 trillion of mortgage-backed securities and \$175 billion of the debt of government-sponsored enterprises, such as Fannie Mae and Freddie Mac.

Bernanke's speech was carefully parsed in the U.S. and abroad. He had noted that net exports were not likely to add much to U.S. economic growth in the short term. The words "currency" and "depreciation" were hardly mentioned in the speech. This was to make the point that the objective of QE2 was not to boost exports by driving down the value of the dollar but rather to stoke domestic consumption and investment by holding down borrowing costs for households and businesses.

The rest of the world saw things differently. The reaction to the speech was swift and furious. China issued the call to arms right away, claiming the U.S. was causing problems for the rest of the world by recklessly printing money. Chinese Vice Finance Minister Zhu Guangyao was quoted as saying that the U.S. Federal Reserve's decision to pump \$600 billion into the economy might "shock" emerging markets by flooding them with capital. He added that the U.S. "has not fully taken into consideration the shock of excessive capital flows to the financial stability of emerging markets." Many other emerging markets lined up on China's side as they were experiencing a tidal wave of inflows. These inflows were adding to the domestic money supply in these countries and complicating their own fight against inflation. In the lead-up to the Seoul G-20 summit, all talk of safety nets was cast aside, and the subject of currency wars began to shape up as the main issue for discussion.

Shifting Alliances

The situation became even more peculiar when Germany and China struck up an alliance on this issue. Why did Germany line up with China? After all, since June 2005, when the renminbi was depegged from the dollar, the renminbi had appreciated by only 7 percent relative to the euro, a lot less than the renminbi's appreciation of nearly 20 percent versus the dollar. So Europe ought to have been even more forceful than the U.S. in its complaints about Chinese currency policy. Germany, it turns out, was largely protecting its interests rather than those of the euro zone.

The German economy is heavily reliant on exports, which amount to 58 percent of GDP (net exports, or exports minus imports, account for about 6 percent of GDP). Outside Europe, China has now become the biggest market for German products, including machinery and equipment, where German industry has been highly competitive relative to other exporters. German export competitiveness has certainly been helped by the euro's weakness but is largely the product of labor market and other reforms undertaken in the past decade that boosted manufacturing sector productivity. Access to China's markets is therefore more important for Germany than what China does with its currency.

Another factor was that in late October 2010—just a few weeks prior to the Seoul summit—the U.S. Treasury had proposed a set of "indicative guidelines" to help the IMF in its task of monitoring and evaluating global current account imbalances. The idea was that a country running a current account balance—either a surplus or deficit—above 4 percent of GDP should have its policies scrutinized carefully, as it was likely to be contributing to global imbalances and could need some policy adjustments. The number seemed to have been chosen carefully to target China —the U.S. and the U.K. were expected to have current account deficits of about 3 percent in 2010, whereas China's current account surplus was forecast to be about 5 percent. In targeting China, however, the

U.S. ensnared Germany as well. Germany had a current account surplus of 6 percent of GDP in 2008 and 2009, with a similar level expected for 2010. Germany has been rather sensitive about its current account surplus, a good part of which is accounted for by exports to the rest of Europe.

Rankled by U.S. actions to set a quantitative monitoring indicator for current account balances and feeling blindsided because the Germans had not been adequately consulted on the matter, German finance minister Wolfgang Schäuble entered headlong into the fray. He went on the offensive against the U.S., referring to the Fed's action as "clueless" and comparing the Fed's policies to China's currency policy, arguing that both would worsen imbalances. His subsequent remarks to *Der Spiegel* magazine were quoted widely. Referring to the Fed, he said:

> They make a reasonable balance between industrial and developing countries more difficult and they undermine the credibility of the US in finance policymaking. . . . It is not consistent when the Americans accuse the Chinese of exchange rate manipulation and then steer the dollar exchange rate artificially lower with the help of their [central bank's] printing press.

This was not the sort of reaction the U.S. had anticipated, especially from a country it considered an ally in economic matters.

Kick in the Backside Rather Than a Pat on the Back

One could fault Bernanke for bad timing and a tin ear, but he was doing what every central banker is hired to do, which is to adopt policies meant to deliver on his institution's domestic mandate. The negative reaction from other countries came as a surprise to the Fed, which perhaps expected a small pat on the back rather than recriminations for doing everything in its power to spur growth in the U.S. economy. What was good for the U.S. was surely good for the world, as it would do no one any favors if the world's largest economy remained in deep-seated malaise. The U.S. Treasury took a similar view and was no doubt glad the Fed had acted, particularly since fiscal policy was severely constrained by the already-enormous deficit and political pushback from the Republican-controlled Congress.

The U.S. delegation faced an added awkwardness at the Seoul summit as it was being berated by other delegations for the Fed's actions that were seen as irresponsible and willfully damaging to other countries' growth prospects. President Barack Obama and Treasury Secretary Timothy Geithner were in the uncomfortable position of taking the heat but were unable to forcefully defend the Fed's actions. In the U.S., there is a long and honorable tradition of the White House and especially the Treasury not commenting on or openly seeking to influence the Fed's policymaking. This is not just for appearances but is viewed as crucial for the Fed's credibility as an independent institution that is not subject to short-term political pressures. The reticence on the part of the U.S. delegation only emboldened China to rally other emerging markets around its position and push even harder against the U.S.

The currency war had taken over the Seoul G-20 summit and, to the intense frustration of the hosts, discussion of global safety nets and other longer-term issues receded into the background. The public war of words led to the usual drama about the wording of the communiqué—an official statement to be issued at the end of the summit—which would summarize the leaders' views on various matters. Some emerging markets wanted strong language about the risks being caused by the expansionary policies of the Fed, whereas many advanced economies, especially Canada and the U.S., were pushing for China and other emerging markets to be berated for not permitting their currencies to appreciate.

On currency issues, the final G-20 communiqué split the difference between advanced and emerging market economies. The relevant part of the communiqué pinned the blame roughly equally on both groups of countries, although in language that was couched in terms of both groups committing to better policies in the future:

> We will move toward more market-determined exchange rate systems and enhance exchange rate flexibility to reflect underlying economic fundamentals and refrain from competitive devaluation of currencies. Advanced economies, including those with reserve currencies, will be vigilant against excess volatility and disorderly movements in exchange rates. Together these actions will help mitigate the risk of excessive volatility in capital flows facing some emerging market economies.

As for the much-hyped issue of global safety nets, the conciliatory words inserted into the communiqué could barely disguise the lack of progress or even a strong desire to push forward with the agenda:

> Building on the achievements made to date on strengthening global financial safety nets, we need to do further work to improve our capacity to cope with future crises. . . . We agreed to explore ways to further improve the international monetary system. . . . We asked the IMF to deepen its work on all aspects of the international monetary system, including capital flow volatility. We look forward to reviewing further analysis and proposals over the next year.

In the world of international economic policy, asking the IMF to "deepen its work" on something indicates that there is some disagreement on the problem and considerable disagreement on possible solutions. Nevertheless, even asking the IMF to look into capital flow volatility was a signal that the emerging markets were beginning to shift the terrain of the debate to address their concerns about the dangers of unfettered capital flows.

Fighting Back with Rhetoric

Backed into a corner and under considerable international pressure, the U.S. felt it had to fight back. With the U.S. Treasury constrained in how aggressively it could wade into monetary policy matters, it would be up to the Federal Reserve to lead the charge. The task fell to the mild-mannered but battle-hardened Ben Bernanke, fresh from his duels with the U.S. Congress over steps taken to manage the financial crisis at home.

One week after the Seoul summit, Bernanke fired back at international critics of the Fed's quantitative easing policies. On November 18, 2010, he delivered a speech on "Rebalancing the Global Recovery" at a central banking conference in Frankfurt. He acknowledged that the Fed's actions might have increased capital flows to emerging markets, complicating their domestic policy management. But he argued that the Fed's actions were at most one contributing factor among many:

> To a large degree, these capital flows have been driven by perceived return differentials that favor emerging markets, resulting from factors such as stronger expected growth—both in the short term and in the longer run—and higher interest rates, which reflect differences in policy settings as well as other forces. . . . [E]ven before the crisis, fast-growing emerging market economies were attractive destinations for cross-border investment.

Ie then took direct aim at emerging markets, arguing that they had nly themselves to blame for the surges in capital inflows they were xperiencing:

> beyond these fundamental factors, an important driver of the rapid capital inflows to some emerging markets is incomplete adjustment of exchange rates in those economies, which leads investors to anticipate additional returns arising from expected exchange rate appreciation.
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> The exchange rate adjustment is incomplete, in part, because the authorities in some emerging market economies have intervened in foreign exchange markets to prevent or slow the appreciation of their currencies. . . . It is striking that, amid all the concerns about renewed private capital inflows to the emerging market economies, total capital, on net, is still flowing from relatively labor-abundant emerging market economies to capital-abundant advanced economies.

In the same speech, Bernanke then laid out clearly and succinctly the U.S. view of how the world ought to work and what was the main obstacle to smooth adjustment in international financial markets. He first set out his analysis of what would happen if all countries' exchange rates were fully flexible. In that case, advanced economies would loosen monetary policy to support growth and fight deflation, whereas emerging markets would tighten monetary policy to prevent overheating and inflation. Higher interest rates in emerging markets would pull in more capital inflows, leading to appreciation of their currencies. Bernanke argued this was a good thing, even for the emerging markets themselves:

> This currency appreciation would in turn tend to reduce net exports and current account surpluses in the emerging markets, thus helping cool these rapidly growing economies while adding to demand in the advanced economies. Moreover, currency appreciation would help shift a greater proportion of domestic output toward satisfying domestic needs in emerging markets. The net result would be more balanced and sustainable global economic growth.
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> Given these advantages of a system of market-determined exchange rates, why have officials in many emerging markets leaned against appreciation of their currencies toward levels more consistent with market fundamentals? The principal answer is that currency undervaluation on the part of some countries has been part of a long-term export-led strategy for growth and development.

These paragraphs succinctly articulate the view that most advanced economies hold to this day—that more flexible exchange rates in the emerging markets would fix a host of domestic as well as international problems. Managed exchange rates are seen as a contravention of the normal functioning of markets and the operation of adjustment mechanisms that would automatically fix any imbalances.

Finally, to those arguing that the crucial flaw in the global monetary system was the dominant role of the U.S. dollar that had let the U.S. get away with reckless policies, such as large budget and current account deficits, Bernanke had a sharp and pointed rejoinder:

> As currently constituted, the international monetary system has a structural flaw: It lacks a mechanism, market based or otherwise, to induce needed adjustments by surplus countries, which can result in persistent imbalances.

In other words, the real problem in the monetary system was that there was no way to discipline countries maintaining undervalued exchange rates and running current account surpluses. If only those countries would fix their policies to generate more domestic demand, all would be well.

If there was any doubt remaining, currency wars had now broken out into the open.

A Condensed History of Currency Wars

Is currency really an instrument of war? Or is all the talk about currency wars just overheated rhetoric that distracts attention from what countries really need to do to set their economies back on track? Currencies are inherently an international matter, as they represent the price of one country's currency relative to that of another country. So when one currency's value goes down, some other currency's value must go up by a corresponding amount. And that is the unavoidable basis for conflict.

The notion of currency values being an economic tool goes back a long way and is linked to mercantilism, a concept that has its origins in the sixteenth century and took hold in the seventeenth and eighteenth centuries. Many European powers, including England and France, viewed a policy of accumulating gold and other precious metals through trade surpluses as a means to acquiring greater national wealth and power. Proponents of mercantilism viewed international trade and wealth accumulation as zero sum games across countries, with one country benefiting only at the expense of others.

David Hume and Adam Smith, among others, refuted the main tenets of mercantilism. They advocated for the benefits of free trade and argued that world wealth was not static.

John Maynard Keynes took a more nuanced view, arguing that under certain conditions

> it will be essential for the maintenance of prosperity that the authorities should pay close attention to the state of the balance of trade. For a favourable balance, provided it is not too large, will prove extremely stimulating; whilst an unfavourable balance may soon produce a state of persistent depression.

He noted that trying to promote the maximum favorable balance of trade could be counterproductive and argued that there was a better alternative:

> It is the policy of an autonomous rate of interest, unimpeded by international preoccupations, and of a national investment programme directed to an optimum level of domestic employment which is twice blessed in the sense that it helps ourselves and our neighbours at the same time. And it is the simultaneous pursuit of these policies by all countries together which is capable of restoring economic health and strength internationally, whether we measure it by the level of domestic employment or by the volume of international trade.

Despite their acceptance of the broad benefits of free trade, however, governments find it difficult to resist the temptation to take measures intended to boost exports as a means to promote growth when domestic demand is weak. In the aftermath of the Great Depression, many countries tried to devalue their currencies and also imposed various sorts of trade restrictions to boost their exports and reduce imports as a way to stimulate growth. Instead, all these measures simply served to stifle the growth in trade, prolonging the depression. The post–World War II Bretton Woods system was in fact an attempt to bring order to international trade and finance by limiting national governments' use of competitive devaluations as a tool to promote domestic growth.

In more recent decades, many developing countries—including China—have used a strategy of devaluation to maintain external price competitiveness. Some economists, such as Surjit Bhalla of Oxus Investments and Dani Rodrik of Princeton, have resurrected the argument that currency undervaluation is helpful in the early stages of a country's economic development. The basic idea is that poor countries need to generate a manufacturing sector–led take-off to a high growth path. The problem is that when a relatively poor country starts experiencing high growth rates, it can get a flood of capital inflows from foreign investors, driving up the value of its currency. This currency appreciation chokes off manufacturing growth, as it reduces the competitiveness of a country's exports. A policy of undervaluation, it is argued, can counter this destructive effect of currency appreciation and boost the competitiveness of manufactured products in international markets.

This problem of currency appreciation is a different manifestation of the "Dutch Disease" effect that has bedeviled many resource-rich but otherwise poor economies. Many countries in Africa, for instance, have abundant natural resources but lack the financial capacity to undertake the massive investments needed to exploit those resources. Governments in the region welcomed with open arms foreign investors who had the technical expertise and financial heft needed to unlock those resources. The lure of big profits has led many large multinational companies to pour in large amounts of investment, despite all the risks of investing in economies with weak and unstable governments.

Those inflows of capital have the unfortunate side effect of currency appreciation, hurting whatever domestic industry there is to speak of in such countries. With the benefits of natural resource extraction flowing mainly to foreign investors and to the political and economic elites, these countries are then beset by the "natural resource curse." Exploiting the natural resources leaves a large part of the population no better off and often worse off, as manufacturing jobs disappear and corruption leads to a very uneven distribution of the benefits from natural resources.

The strategy of long-term undervaluation to counter the possible problems caused by currency appreciation sounds appealing but has serious negative consequences for domestic policies. It acts as an implicit transfer to firms in the exporting sector while hurting importers and consumers at large. Furthermore, in middle-income economies, it requires other policy contortions, such as forcing banks to buy sterilization bonds cheaply to conduct a policy of systematic undervaluation without setting off inflation. These costs are typically ignored in the calculations done by authors who praise the benefits of devaluation as a strategy for boosting competitiveness.

Nevertheless, it is a seductive argument for central bankers in emerging markets. The reality is that exporters generate more jobs than importers do. Moreover, the benefits of cheaper imports are usually spread out broadly among the population. These benefits often don't seem large enough to create a viable political constituency to support lower import costs. In contrast, exporters are a powerful political block, and the costs of currency appreciation hit them directly in the gut. Their complaints tend to resonate much more with politicians because jobs are involved, and politicians want to be seen as doing everything they can to protect domestic jobs, especially from what is seen as unfair foreign competition.

Although even the rapidly growing emerging markets are keen to protect their exports, middle-income countries like China surely are not concerned about a growth take-off or a natural resource curse. Why then are they beating the drums of war with such vigor, and is all the heated rhetoric justified? To put it more simply, are currency wars merely a matter of rhetoric or do they have substantive implications? One possibility is that disputes about currencies serve as a smokescreen that conveniently diverts attention from more difficult domestic economic reforms.

Are Currency Wars Overblown?

There are two aspects to the question about whether currency wars and the tools used to engage in them constitute a diversion from more fundamental policy changes that are needed. The first issue is whether advanced economies such as the U.S. that are pursuing expansionary monetary policies are covertly pursuing a strategy of devaluing their currencies to generate domestic growth. The second is whether emerging market economies have a legitimate grievance that they are on the receiving end of problems and risks generated by this loose monetary policy. Let us examine these issues in turn.

Unconventional Approach to Devaluation?

To the rest of the world, the Fed's unconventional monetary policy actions seemed designed to help the U.S. economy mainly by driving down the value of the dollar, a natural consequence of printing dollars indiscriminately. The Fed's views on the consequences of its actions were quite different. Although acknowledging that the dollar would probably fall in value relative to other major currencies as a result of quantitative easing, the Fed seemed to view exports as at best a marginal contributor to growth. Moreover, in line with Bernanke's earlier views about global imbalances, dollar depreciation was seen as a necessary component of a longer-term adjustment of these imbalances.

The Fed's guarded views about the contribution that export growth could make to a U.S. economic recovery were eclipsed by a pledge made by President Obama that continued to resonate when the Fed undertook QE2. By the end of 2009, job growth in the U.S. was still lackluster, and the unemployment rate hovered stubbornly at about 10 percent. With no realistic prospects of pushing any further fiscal stimulus through an uncooperative Congress, the president needed a strategy to show that he was still doing all he could to get the labor market back on its feet.

In his State of the Union address on January 27, 2010, President Obama pledged to double exports over the next five years, linking it to two million new jobs. This would imply an increase from $1.6 trillion in exports in 2009 to $3.2 trillion in 2015 and was to be achieved through various domestic policies, trade agreements, and by making sure that trading partners played by the rules:

> we need to export more of our goods. Because the more products we make and sell to other countries, the more jobs we support right here in America. So tonight, we set a new goal: We will double our exports over the next five years, an increase that will support two million jobs in America. To help meet this goal, we're launching a National Export Initiative that will help farmers and small businesses increase their exports, and reform export controls consistent with national security.
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> We have to seek new markets aggressively, just as our competitors are. If America sits on the sidelines while other nations sign trade deals, we will lose the chance to create jobs on our shores. But realizing those benefits also means enforcing those agreements so our trading partners play by the rules. And that's why we'll continue to shape a Doha trade agreement that opens global markets, and why we will strengthen our trade relations in Asia and with key partners like South Korea and Panama and Colombia.

In his speech, the president did not say anything about currency values. Nor did he say anything about net exports, which is the same thing as the trade balance. U.S. imports tend to move closely with the business cycle, rising during recoveries and falling during downturns. So the president's pledge to double exports within five years could be perfectly consistent with no improvement or possibly even a worsening of the U.S. trade deficit over that period. But this subtlety was lost in public discussions abroad, where Bernanke's actions were seen as very much consistent with his president's goal of using exports as an engine for job growth.

Even if it wanted to, could the Fed engineer a depreciation of the dollar as its international critics were suggesting? There is no doubt that currencies are subject to the laws of supply and demand; increasing the supply of dollars should reduce its value relative to other currencies. That is not the end of the story, however. In principle, loose monetary policy in the form of large monetary injections should lead to higher inflationary expectations. This in turn might prop up inflation-adjusted (or real) exchange rates, even if the nominal exchange rate were to depreciate. Inflation-adjusted exchange rates are ultimately the main determinants of competitiveness in foreign markets.

In practice, things are even less clear-cut. If financial market participants viewed the Fed's quantitative easing measures as reflecting concerns about future economic weakness, then inflation could fall despite more money being pumped into the economy. In fact, inflationary expectations in the U.S. held steady at about 2 percent for an extended period after the financial crisis, despite rock-bottom interest rates and multiple rounds of quantitative easing. So if the nominal exchange rate falls as the supply of dollars increases and inflation stays unchanged, the Fed's actions would indeed lead to a depreciation of the dollar in inflation-adjusted terms.

There is yet another angle to this story. International investors could also be spooked by the Fed's actions, if they viewed such actions as signaling more rough economic times ahead. This could lead them to pour even more money into the safe haven of U.S. Treasury bonds. Such inflows prop up the dollar, which is exactly what has happened on many occasions recently. The special status of the U.S. dollar as the principal global reserve currency would of course be a key factor behind such an outcome.

Given all these twists and turns, as well as the Fed's stated views on the matter, it is hard to argue that the Fed's actions are aimed at driving down the dollar's value. It is also worth keeping in mind that total U.S. exports of goods and services in 2012 accounted for about 14 percent of GDP. So it would take a huge depreciation of the dollar to generate enough new export growth to give a significant boost to either GDP or employment growth.

Bernanke's views on the matter are summarized in remarks he made back in November 2002, a few months after he became a member of the

Federal Reserve Board of Governors and when the U.S. was facing the specter of deflation. In a speech in which he argued for aggressive monetary policy actions and listed various options for how the Fed could inject money into the economy, he made the following observation:

> since the United States is a large, relatively closed economy, manipulating the exchange value of the dollar would not be a particularly desirable way to fight domestic deflation, particularly given the range of other options available. Thus, I want to be absolutely clear that I am today neither forecasting nor recommending any attempt by U.S. policymakers to target the international value of the dollar.

Bernanke's statements notwithstanding, the rest of the world saw the Fed's actions as a thinly veiled attempt to drive down the value of the dollar.

Much Ado about Nothing?

Do emerging markets have a valid case that loose U.S. monetary policy hurts them? Again, the answer is a complex and subtle one. The first issue that needs to be addressed is whether quantitative easing has in fact led to capital flowing out of the U.S. and into emerging markets. There is certainly a lot of evidence from the past that low interest rates in the U.S. and other advanced economies push capital out to emerging markets in more normal times.

Although evidence from the recent bouts of monetary easing is less clear, it is plausible that the Fed's unconventional monetary policies are getting only limited traction in boosting aggregate demand in the U.S. Large corporations are accumulating sizable cash reserves in the face of uncertain economic prospects as the recovery continues to be weak. Financial institutions are not increasing lending to consumers and small firms, because the risks of default have risen after the crisis. Additionally, there are still some uncertainties about changes in banking regulation, both at home and abroad, so banks are saving up capital in the event they need more of it to satisfy regulatory requirements. In contrast, emerging markets are facing good growth prospects, so it is likely that

private capital will continue flowing their way, especially as unconventional monetary policies make cheap money freely and easily available to large investors.

One of the key concerns for emerging markets is that capital inflows lead to currency appreciation. Exports are clearly important for growth, but their importance sometimes tends to be overstated. For example, Brazil, despite leading the charge on one side of the currency wars, has exports amounting to just 11 percent of its GDP. So a currency appreciation would hardly have a devastating effect on the economy if export growth were to slow down. Even China, often seen as an export-oriented economy, has continued growing strongly during and after the financial crisis, even though its export growth has slowed markedly and its trade surplus has shrunk from 7.6 percent of GDP in 2007 to 2.8 percent of GDP in 2012. But exporters get hit directly and hard when there is a currency appreciation, causing them to complain loudly. Their voices tend to echo even more loudly than usual in the corridors of power at times of low growth in output and employment.

The other big concern for emerging market central bankers is that capital inflows tend to worsen domestic inflation and fuel bubbles in asset markets. The inflation problem is actually worse for countries that have organized their monetary policy frameworks according to the textbook prescription—inflation targeting with flexible exchange rates.

Consider Thailand. With the Thai economy in tatters after the financial crisis in 1997, the nation's central bank dropped its long-standing pegged exchange rate regime and instead adopted monetary targeting that year. Then, to rebuild confidence and fix inflationary expectations, it moved to an inflation targeting regime in May 2000.

The Bank of Thailand's new framework worked well in its first few years, delivering low and stable inflation. In early 2008, with food prices rising and feeding through into overall consumer price inflation, the Thai central bank started raising interest rates gradually. This action brought in more capital inflows and drove up the value of the currency. Thus, in the context of the inflation targeting framework, the obvious policy response—higher interest rates to bring down domestic inflation—was only making things worse. In the latter half of 2008, of course, the crisis hit and the problem went away. But the dilemma has regularly resurfaced since the beginning of 2010, with the central bank struggling to manage domestic inflation without stoking more capital inflows and making the problem worse.

In addition to price inflation, emerging market policymakers are also concerned that these inflows lead to problems in their asset markets. Given that a lot of the flows to emerging markets are in the form of FDI and portfolio equity, these flows have the right sort of risk sharing characteristics, with foreign investors sharing both currency and return risk on their investments. Hence, these flows should be of less concern to policymakers in emerging markets than is debt, which has burned them in the past.

Here it is important to remember that currency wars are being fought against the background of not just higher private capital flows to the emerging markets but also greater capital flow volatility. Even though portfolio equity flows provide more effective risk sharing for emerging markets, these inflows can lead to asset market bubbles when domestic financial systems are not working well and then cause painful effects when those bubbles burst. Outflows of capital that tend to increase just when things are not going well domestically only make things worse. For instance, foreign inflows helped power India's equity market boom in 2011 that subsequently turned into a mini-bust as foreign capital retreated. In some economies, foreign money also tends to inflate real estate values, adding to asset bubbles.

Commodity Prices

A related concern that some emerging market policymakers have is that easy money in the advanced economies fuels worldwide commodity price surges, which selectively hurts emerging markets more than their advanced counterparts. India's Finance Minister P. Chidambaram raised the issue at a meeting with U.S. Treasury Secretary Timothy Geithner in October 2012. At a subsequent press conference, Chidambaram indicated he had discussed U.S. quantitative easing operations with Geithner and "raised the concern that it may impact commodity prices and commodity prices may rise." He noted that Geithner had dismissed those concerns but Chidambaram concluded "that is a matter we'll have to wait and see."

The logic behind this concern is that inflationary fears lead to more interest in commodities as an "asset class," as they are likely to retain value when a general increase in inflation occurs. There have also been concerns, which are difficult to substantiate, that the availability of easy money in the form of cheap loans has increased speculative activity in commodity markets, driving up the price of food and other commodities. Of course, higher commodity prices are not a uniform concern for emerging markets. Some commodity exporters benefit from high prices for their exports, but the increase in food prices does tend to hurt all these countries, especially because the share of food in average household expenditures tends to be much higher than in the richer advanced economies.

Currency Valuation and Volatility

The divergent perceptions about policy intentions do not run in just one direction, as advanced economies have their own specific complaints. Currency wars are often interpreted by officials in these economies as attempts by emerging markets to resist appreciation that would move currencies toward their equilibrium values. That opens up a new can of worms, starting with the difficulty of even defining the concept of an equilibrium exchange rate. In principle, this is the exchange rate consistent with a country having no domestic or external imbalances, such as large budget or current account deficits. Some economists have constructed estimates of equilibrium exchange rates based on various statistical models, but these estimates are subject to wide margins of error and inspire little confidence. Furthermore, a country's exchange rate can sometimes drift far off from its estimated equilibrium level for a variety of reasons, even if the exchange rate is freely determined by the market. It is usually not obvious why any such discrepancy should be fixed through an adjustment of domestic policies.

Besides, it is difficult to make unconditional statements about a currency's suitable value. Take China. The massive amount of exchange market intervention symbolized by the rapid buildup of foreign exchange reserves suggests that, in the absence of such intervention, the market-determined level of the currency would be higher. But this conclusion is conditional on the limited openness of the capital account. If controls on capital flows were relaxed further, leading to large outflows, the currency could well depreciate in the short run, despite all the rhetoric that the currency is undervalued and ought to appreciate.

Capital flow volatility also creates concerns about currency volatility. Currency markets are subject to overshooting, a common phenomenon, according to which currencies appreciate or depreciate by a large amount before settling down to smaller changes in either direction. In principle, short-term currency appreciations should not have large or persistent effects on exports. But many emerging markets specialize in low-technology products with razor-thin profit margins. Even a temporary loss of competitiveness because of a short-lived surge in the domestic currency's value can lead to many exporting firms going under as they lose market share to lower-wage competitors.

In short, framing currency wars through the prism of equilibrium currency values or specific currency regimes misses the point. Emerging market countries that have floating exchange rates as well as those with tightly managed exchange rates are on the same side on this issue. They have a long litany of woes, whether justified or not, about how the unconventional monetary policies of the advanced economy central banks are complicating their domestic macroeconomic management.

Squaring Up Opposing Views: Scale Matters

The Fed's view is that, for all their potential risks, the likely benefits of unconventional policies such as quantitative easing still make them worth a try. The rest of the world should, if anything, be thankful for the Fed's taking every conceivable measure to boost U.S. economic growth.

How can one reconcile the Fed's perspective with that of the emerging markets? One answer comes down to the issues of size and scale. Even if the capital flow implications of quantitative easing are modest from the perspective of global capital movements, the flows can be large from the point of view of host economies. Thailand has a GDP of $350 billion. For an economy of this size, coping with an inflow of $5–10 billion in a month, an amount that is a rounding error in global capital flows, creates enormous complications. Even for larger economies like Brazil or India, volumes of flows that seem small from an advanced economy perspective can cause risks of financial market instability, because their financial

markets are not deep enough to absorb such inflows without setting off boom-bust cycles.

Another part of the answer, as noted above, is that emerging markets are concerned not just about the level of inflows but also about capital flow volatility. Low interest rates and cheap money in the U.S. will probably give way sooner or later to higher interest rates and tighter availability of credit. If all this happens in tandem with a U.S. recovery, money might flow out of emerging markets just as rapidly as it came in, triggering equity market and other asset market collapses. In fact, by August 2013, this scenario was becoming a reality, with many emerging market currencies and equity markets plunging in value.

The real concern for emerging markets boils down to this: The benefits of unconventional monetary policy through their effects on growth in advanced economies are uncertain and at best modest. Monetary policy can limit downside risks in advanced economies but cannot by itself revive and sustain growth. In contrast, the costs of such policies are immediate and often quite large in terms of the domestic policy complications that the spillovers of those actions cause for emerging markets.

The new generation of emerging market central bankers is an astute and pragmatic set. They do not want to put on a futile King Canute act, for they recognize all too well that they have little chance of stopping waves of capital inflows and currency appreciation driven by the right reasons—the fast productivity growth in their economies.* Their concern is that policies of the advanced economies are causing this to happen before the emerging markets are ready to deal with surges of inflows and rapid currency appreciation. So the emerging markets' strategy in the currency wars is not so much to reverse appreciation as it is to stave off excessive or too rapid appreciation. As Edwin Truman, a former senior official at the Fed, has put it elegantly, the strategy is one of "competitive non-appreciation" rather than competitive devaluation!

* Legend has it that King Canute, a king of England (of Danish origin) in the eleventh century, had his chair set on the seashore and commanded the waves to stop advancing. When the tide did come in and "disrespectfully drenched the king's feet and shins," he is said to have remarked, "Let all the world know that the power of kings is empty and worthless and there is no King worthy of the name save Him by whose will heaven, earth and sea obey eternal laws." This exercise was meant to convey a message to his sycophantic courtiers—that even a king has limits to his powers.

Collateral Damage and More Irony

Wars create collateral damage, and currency wars are no exception. Every central bank has domestic objectives, and only domestic objectives, in its mandate. But when large central banks act, the effects of their actions resonate throughout the world.

With the Fed flooding U.S. financial markets with money, investors have been turning some of their attention to other safe havens, including countries like Japan and Switzerland. Given the torpid state of the Japanese economy, which has been flirting with deflation for the past couple of decades, and the enormous scale of the country's debt, Japan would hardly seem to have the characteristics of an economy whose government debt or corporate securities one would turn to for safety. Yet, international investors eager to look to markets other than the U.S. for safety often turn to Japan, driving up the value of the yen to a level that worsens Japan's prospects of exporting its way out of a deep economic malaise. This behavior contributed to a sharp appreciation in the Japanese yen, which traded in a range of about 80 yen to the dollar for much of 2012, about 30 percent stronger than its level in the summer of 2008. The measures taken by the Bank of Japan (BoJ) in 2012 and 2013 to aggressively loosen monetary policy are in some ways a reaction to the Fed's actions and are directly tied to keeping down the value of the yen.

Another innocent bystander is Switzerland, a small economy with sound economic policies and a robust financial sector, which is widely regarded as a safe haven. In the aftermath of the financial crisis, a modest sliver of the global capital in search of a safe sanctuary headed toward the Swiss franc, enough to drive a surge in its external value. The Swiss franc appreciated from 1.52 per euro in July 2009 to 1.18 per euro by July 2011, an appreciation of 23 percent in just two years.

The extent of foreign exchange intervention by the BoJ and the Swiss National Bank (SNB) to prevent their currencies from appreciating even faster has been enormous. It has also created big risks for their central banks' balance sheets. In 2011, Japan's foreign exchange reserves went up by $185 billion dollars—an 18 percent jump in just one year. The SNB has been equally aggressive in buying up foreign currencies to keep its currency from appreciating against the euro. Between January 2009 and July 2011, Swiss foreign exchange reserves rose from $44 bil-

lion to $234 billion. Then, in August 2011 alone, reserves skyrocketed by another $83 billion.

With the country's manufacturing sector in pain as the Swiss franc continued to appreciate despite these measures, the SNB took more dramatic action. It first loosened monetary policy by cutting interest rates, temporarily knocking down the Swiss franc's value and providing a brief respite from its appreciation.

Then, on September 26, 2011, the SNB fired another of its own cannons in the currency wars. It stunned markets by putting a cap on the Swiss franc's appreciation, saying it would not let the currency trade at a level stronger than 1.20 francs per euro. The SNB declared that it would "enforce this minimum rate with the utmost determination and is prepared to buy foreign currency in unlimited quantities." In other words, it would intervene as much as needed in foreign exchange markets to prevent the franc from strengthening beyond the line it had drawn in the sand. This action caught markets by surprise, because Switzerland had long been committed to the free flow of capital and to fully flexible exchange rates. The move also signaled that currency wars were beginning to engulf smaller advanced economies and that more hostilities were in the offing.

Appreciation pressures on the Swiss franc then eased off but returned with force in the summer of 2012, when the euro zone crisis hit another critical stage. With another spike of $69 billion in June 2012 and further increases in the months that followed, the SNB had built up its stock of foreign exchange reserves to nearly $470 billion at the end of 2012, a tenfold increase in four years. To prevent a surge in domestic inflation (as it has been printing Swiss francs to purchase euros), the SNB has been sterilizing its intervention operations by selling liabilities denominated in its own currency. If the euro were to depreciate against the Swiss franc in the future, the SNB would take a big capital loss in domestic currency terms on its reserve portfolio. The SNB has made it clear that it fully recognizes the risk of a big loss but felt it had no option but to act forcefully to protect the Swiss economy.

Guns and Roses

The collateral damage from currency wars has been spreading quickly. Many countries, including some emerging markets, are trapped in the middle of the battles between China and the U.S., the two titans in the world economy. For instance, countries like India, which are sometimes equally frustrated by U.S. monetary policy and Chinese currency policy, were being furiously lobbied by both sides in the run-up to the Seoul G-20 summit. Caught in the middle and unwilling to make enemies on either side, Indian officials simultaneously lauded the benefits of exchange rate flexibility, warned about the dangers of protectionist policies, and appealed for more tempered monetary policy actions by advanced economy central banks. Indian Prime Minister Manmohan Singh made these remarks in his speech at the Seoul summit:

> we must at all costs avoid competitive devaluation and resist any resurgence of protectionism . . . exchange rates flexibility is an important instrument for achieving a sustainable current account position and our policies must reflect this consideration. At the same time, reserve currency countries have a special responsibility to ensure that their monetary policies do not lead to destabilizing capital flows, which can put pressure on emerging markets.

There is another wrinkle to the currency wars. When emerging markets intervene in foreign exchange markets as a defensive maneuver to tamp down appreciation of their currencies, they build up foreign exchange reserves. Where can they park those reserves? The euro is none too secure an investment, and Switzerland is too small. Then there is Japan, but Japan is itself intervening in foreign exchange markets and recycling safe haven inflows. So where does this money end up? No prizes for guessing—the U.S.!

So the cannonballs fired by the rest of the world turn into flowers by the time they reach enemy shores on the U.S. side. To heighten the irony, emerging markets now have an even stronger incentive to keep their currencies from appreciating against the dollar: to avoid taking a capital loss in domestic currency terms on their reserve portfolios.

Competitive nonappreciations through intervention in foreign exchange markets now take on a more complex function. They not only involve the maintenance of price competitiveness in external trade but also serve to limit a country's implicit wealth transfers to the rest of the

world. Thus, among emerging markets, the fear of currency appreciation now has two underlying causes rather than just the implications for trade.

Other countries may win some of the skirmishes and battles, but, in some respects, the U.S. is going to achieve an even more favorable position as the currency wars wear on.

Strong Dollar Rhetoric

There is more irony to come. For in the midst of its criticisms of certain emerging markets' currency policies and emerging markets' protests about its monetary policy actions, the U.S. has over the past two decades consistently maintained the rhetoric of a strong dollar. This rhetoric was elevated to the status of policy by Robert Rubin, who was Treasury secretary from 1995 to 1999. In an interview in 1997, he said, "I believe a strong dollar is in our nation's interest." In fairness, Rubin apparently did note that it was pointless to try to artificially influence currency values, because they reflect economic fundamentals.

Nevertheless, subsequent Treasury secretaries have found it difficult to stray from this line, for fear that it would signal weakness. The next secretary, Lawrence Summers, affirmed that "The United States is unwavering in its strong dollar policy." Those who followed in this position reiterated this line in one context or another, always linking it to the national interest. Henry Paulson, Treasury secretary from 2006 to 2009, used this rhetoric with regularity and on one occasion went so far as to say, "In my heart and soul, I just know and believe that a strong dollar is in our nation's interest."

This rhetoric seems driven more by political than economic compulsions. The apparent logic is that a strong currency represents the strength of the country and its economy. Although a country's high productivity growth relative to those of its trading partners would indeed help its currency strengthen, the reverse proposition—that a stronger currency would help growth and competitiveness—has become part of the lore. In his Senate confirmation hearing in February 2013 prior to taking office, Treasury Secretary Jacob Lew made this statement:

> Treasury has had a longstanding position through administrations of both parties over many years that a strong dollar is in the best

interests of promoting U.S. growth, productivity and competitiveness. If confirmed, I would not change that policy.

Although they have become locked into this policy for domestic political reasons, U.S. policymakers no doubt understand the shaky economic foundations of this line of logic. Paul O'Neill, who was Treasury secretary from 2001 to 2002 and came to be seen as a maverick in the George W. Bush administration, was candid in an interview he gave after his resignation. He observed that "When I was Secretary of the Treasury I was not supposed to say anything but 'strong dollar, strong dollar.' I argued then and would argue now that the idea of a strong dollar policy is a vacuous notion."

Perhaps the rhetoric was really just a diversionary tactic. Fed Chairman Alan Greenspan told his colleagues in 2001 that he had cringed every time Robert Rubin repeated his mantra during the Clinton administration that the White House supported a strong dollar. Eventually, however, Greenspan became a fan of the slogan because, as he put it, "It was boring, it was dull, it was repetitive, it was nonintellectual and it worked like a charm."

The other oddity in the U.S., which is also true of many other advanced economies, is that management of the currency's value is under the purview of the U.S. Treasury and not the Fed. One would think that monetary policy is a key determinant of the exchange rate, but, in principle, Treasury has final authority over management of the dollar's value. At a press conference in 2011, Fed Chairman Ben Bernanke had this to say:

> First, I should start by saying that the Secretary of the Treasury, of course, is the spokesperson for U.S. policy on the dollar and Secretary Geithner had some words yesterday. Let me add to what he said first by saying that the Federal Reserve believes that a strong and stable dollar is both in the American interest and in the interest of the global economy.

So, while the world fears the consequences of a weaker dollar, the U.S. apparently fears it as well, notwithstanding its actions to the contrary and its stated objective of raising exports.

More Battles to Come?

On September 13, 2012, the U.S. Federal Reserve Open Market Committee launched a third round of quantitative easing, announcing an open-ended commitment to buying an additional $40 billion of agency mortgage-backed securities per month. The Committee also indicated it would continue with Operation Twist, selling short-term Treasury bonds and buying longer-term Treasury securities. The idea behind this operation was to keep long-term interest rates low to help the housing sector and boost investment and consumer demand. Finally, the Committee indicated it expected to keep short-term policy rates at or close to zero percent until mid-2015. This battery of aggressive measures was meant to "put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative."

On the heels of the Fed's action, the BoJ followed with its own measures. Japan had been in the throes of deflation for most of 2009–11, and the picture did not look much brighter for 2012. With policy interest rates already at zero for a long period, higher inflation was the only hope for the BoJ to drive down inflation-adjusted interest rates and stoke economic activity. In February 2012, the BoJ had announced an inflation target of 1 percent. The target, although a low one, was meant as an important signal to the market of the BoJ's determination to support aggregate demand. After a brief spike in the first half of the year, consumer prices again began to fall in the summer of 2012. With a strengthening yen hurting exports, the economy was sputtering once again.

On September 19, less than a week after the Fed announcement of QE3 and to the dismay of emerging markets, the BoJ announced the next phase of its own quantitative easing. The BoJ expanded the bond-buying program it had put in place in October 2010 from 70 trillion yen to 80 trillion yen, an increase of roughly $125 billion. The BoJ expanded the program further in October and December, by about 10 trillion yen each time, taking the total to 101 trillion yen (nearly $1.2 trillion).

Interestingly, the announcement of its own unconventional monetary policy actions by the European Central Bank (ECB) in August 2012 did not trigger a negative reaction from emerging markets. The ECB's Outright Monetary Transactions program was in effect a commitment to uy the sovereign bonds of countries in the euro zone that were facing ifficulties in financing their debt at reasonable interest rates—once hose countries agreed to a program of budgetary, labor market, product narket, and other reforms. The program was intended solely to boost onfidence in bonds issued by any euro zone country, so that none of hem would face punitive borrowing costs.

The ECB made it clear that its bond-buying operations would be sterlized, so that any money pumped into the system would be absorbed ack through other means. This promise of sterilization was partly to lacate the Germans, who were already unhappy with the ECB's actions, y reassuring them that at least these operations would not increase inflaion. From the emerging markets' perspective, this move was welcome—tability in the euro zone was to everyone's benefit, and the ECB's promse to soak up most of its monetary injections meant that there was no dditional money that could wend its way to other countries.

Renewed Tensions

he amounts involved in the U.S. and Japanese central banks' actions were ot small potatoes even for those economies. Outflows of even a fraction f these amounts would be difficult for most emerging markets to cope vith. Indeed, soon after the major central banks announced their policies, merging markets started experiencing capital inflows and renewed curency appreciation. This trend may have been partly tied to a firming-up of he U.S. recovery and reduced prospects of a meltdown in Europe, but merging markets saw the expansionary policies of the advanced economy entral banks as the main factor behind capital and currency movements.

Reacting to these actions, Guido Mantega of Brazil was blunt as always, warning that quantitative easing by the major advanced economies would revive currency wars by forcing other countries to act to protect their own economies. He made it clear that Brazil would continue intervening heavily in foreign exchange markets to prevent the real from appreciating further. He was quoted as saying:

> [The United States and Japan] will be stimulating the currency wars as [they] will lead all countries also to pursue these wars. It's natural other countries will defend themselves. The [Brazilian] central bank will buy more reserves, we already have a very high

> level of reserves and we will purchase more if there is a strong offer of dollars in the Brazilian economy . . . we won't allow our economy to become uncompetitive.

Meanwhile, the perspective on the other side of the battlefield also remains largely unchanged. Although global trade imbalances have shrunk, a sense of aggrievement still exists among policymakers in countries like the U.S. and the U.K., who contend that the fundamental obstacle to further adjustment of these imbalances is the lack of flexible exchange rates among the major emerging market economies.

On December 10, 2012, Sir Mervyn King, then governor of the Bank of England, delivered a speech to the Economic Club of New York. After speaking of the many domestic challenges his institution faced, he turned to problems of global economic coordination. He emphasized the importance of rebalancing trade, noting that consumer-driven economies like the U.K. and the U.S. continued to run large trade deficits, while countries like China continued to run large surpluses. His view was that currency wars were here to stay for a while:

> The pressures on deficit countries are inexorable because those are the countries that have built up debt and those are the countries that are having to adjust. The surplus countries are under no such pressure to do so and many of them show great reluctance to expand domestic spending to allow the deficit countries to re-balance. . . . [T]here has been no agreement on the need for working together to achieve some element of re-balancing the world economy. . . . [W]e will see . . . the growth of actively managed exchange rates as an alternative to the use of domestic monetary policy. . . . [Y]ou can see month by month the addition of the number of countries who feel that active exchange rate management, always of course to push their exchange rate down, is growing.

This narrative follows a familiar train of thought, that the advanced economies that are running current account deficits need to adjust their policies to bring down those deficits, but this adjustment is being stymied by the activist exchange rate policies of the surplus countries that are not doing what is needed to boost their own domestic demand.

Fred Bergsten of the Peterson Institute has referred to the U.S. as the "most injured party" in the currency wars and called for the U.S. to take actions, both unilateral and through international financial institutions, against countries like China that he classifies as currency manipulators.

Each Country for Itself

The specter of currency wars signifies more than just a tussle between advanced and emerging market economies. Soon after the BoJ announced a new round of monetary easing measures in January 2013 in response to strong and overt political pressure from the new Japanese government, Jens Weidmann, president of the Deutsche Bundesbank (Germany's formidable central bank), stepped in to the debate. He warned Japan not to "politicize" its exchange rate by trying to engineer a depreciation through even looser monetary policy. Weidmann was quoted as saying:

> A consequence, whether intended or not, could lead to an increasingly politicized exchange rate. Until now, the international monetary system has come through the crisis without a race to devaluation, and I really hope it stays that way.

This statement came just before the euro zone was dragged directly into the rhetoric of currency wars by Weidmann's European colleague, French President François Hollande. Echoing the sentiments of other European leaders, Hollande called for the euro zone to directly engage in the currency wars and prevent the euro from appreciating. In February 2013, he blamed the euro's appreciation for the zone's loss of competitiveness:

> The euro should not fluctuate according to the mood of the markets. A monetary zone must have an exchange rate policy. If not it will be subjected to an exchange rate that does not reflect the real state of the economy.

He went on to issue this explicit call to arms:

> The eurozone must, through its heads of state and government, decide on a medium-term exchange rate. We need to act at an international level to protect our own interests.

This call for the ECB to step in to prevent the euro from appreciating was anathema to the Germans, already concerned about the ECB getting diverted from its main mandate of price stability. German economy minister Philipp Rösler retorted strongly that the euro zone's top priority ought to be "strengthening competitiveness, rather than weakening the currency."

Meanwhile, the newly elected prime minister of Japan, Shinzo Abe, appointed Haruhiko Kuroda as the governor of the BoJ in March 2013. The clear objective of the appointment was to get monetary policy to fire on all cylinders to support the economy, including whatever degree of monetary expansion—and resulting currency depreciation—was necessary to pull the economy out of its deflationary spiral. With goods exports amounting to only 14 percent of GDP, it would take a large depreciation for exports to significantly boost GDP growth.

In April 2013, the BoJ came out with its guns blazing. It announced a new inflation target of 2 percent and a range of measures to attain that objective. The yen promptly started depreciating, especially against the U.S. dollar. This put the U.S. in an awkward position, glad that Japan was taking strong actions to revive its economy but unhappy that those actions were leading to a falling yen and pushing up the dollar's value. In its semi-annual currency report to the U.S. Congress in April 2013, the Treasury Department lobbed a direct warning at Japan:

> We will continue to press Japan to adhere to the commitments agreed to in the G-7 and G-20, to remain oriented towards meeting respective domestic objectives using domestic instruments and to refrain from competitive devaluation and targeting its exchange rate for competitive purposes.

Even as they welcomed Japan's attempts to revive its economy, the monetary policy actions also prompted sharp reactions from its Asian neighbors. South Korean Finance Minister Hyun Oh Seok said that Japan's weakening yen was hurting his country's economy more than any threats from North Korea.

In short, the world is happy to see the advanced economies taking measures to boost their economic growth, but not when there is a perception that this growth will come at the expense of other countries.

A Grim Reality

These developments and differing perspectives underlie big and, in some respects, unavoidable tensions in countries' use of macroeconomic policies to deal with their weak economies. With their high levels of public debt, advanced economies are boxed in when it comes to their ability to use fiscal policy to support economic growth. In most emerging market economies, fiscal policy is less constrained by high debt levels but runs up against constraints, such as inadequate social transfer mechanisms, that make it difficult to deploy fiscal policy effectively at short notice. In many economies, both advanced and emerging, deep reforms to labor and product markets and financial systems are necessary to improve competitiveness and growth. But those reforms are difficult, as they often involve wrenching changes and are politically very costly.

History is littered with examples of politicians who forced their countries to confront tough choices and paid a heavy political price for doing so, even if their economies eventually benefited. Even the self-professedly austere Germans resisted such reforms. They turned their leader, Chancellor Gerhard Schröder, out of office for taking tough measures that have helped Germany become the competitive export machine it is today.

In 2003, German unemployment had risen to nearly 10 percent, and the economy had stopped growing. Schröder unveiled the Agenda 2010 program of reforms in March 2003. The reforms streamlined labor laws, cut unemployment benefits, reduced taxes, and revamped a slew of welfare programs. The reforms came at a heavy political price for Schröder, who faced street demonstrations, rising opposition in his own party and, finally, an electoral defeat when he called early national parliamentary elections in 2005. The economic reforms started to turn the economy around by 2006, which was too late for Schröder.

Politicians find it difficult to do the right thing in the short run, leaving monetary policy to do the heavy lifting. Consequently, around the world monetary policy has become the first—and often the only—line of defense against macroeconomic shocks, both domestic and external. Even advanced economies face a delicate balance between the benefits and costs of quantitative easing and other unconventional monetary policy actions. There is no easy way to bridge the fundamental disconnect in

the way this balance is perceived by policymakers in advanced economies and emerging markets. The rising global integration of financial markets is inevitably going to lead to increasing currency competition. The grim reality is that monetary policy is the only game in town, and it is going to remain a zero sum game through its effects on currencies.

This portends a bleak situation for emerging market economies. José De Gregorio, former governor of the Banco Central de Chile, has argued that it is futile for emerging markets to employ foreign exchange intervention or capital controls to keep capital inflows out and maintain undervalued currencies. He notes that adopting these strategies as a response to currency wars leads emerging markets to institute a range of policies that hurt the domestic economy by creating various distortions, especially in financial markets. Or, as he put it more eloquently at a public event in Washington, DC, some countries engaging in currency wars are ultimately setting themselves up for "currency suicide."

Even if currency wars are seen just as short-term frictions that will fade away, they could well take on lives of their own. The threat of trade protectionism is on the rise and has compromised momentum toward more liberal trade regimes around the world. Given the lasting damage that could be wrought by currency wars if they lead to the erection of barriers to the free flow of trade and capital, peacekeepers have tried to step in and seek an end to the conflict. Could they succeed in getting countries to consider the common good and replace conflict with cooperation?

To answer this question, it is worth examining an episode that preceded the global financial crisis, when tensions about currency policies were rising and a mediator stepped in to try to resolve the problem. How that episode played out, as described in the next chapter, is instructive. It illustrates the difficulties of translating high-minded rhetoric about policy coordination into actions.

8

Seeking a Truce on Currency Wars

Mr. France: *Men gamble everywhere, sir. The weakness is universal.*

Matt Dillon (Marshal of Dodge City, Kansas): *You can gamble here all you like, as long as you don't run a crooked game.*

Mr. France: *That's precisely what I wanted to see you about, Marshal. It's not that I'm dishonest, but I've often been accused of being so. Sometimes makes for unpleasantness.*

Matt Dillon: *Around here it usually leads to gunplay. . . . That's why I don't tolerate anything but an honest game in Dodge.*

Gunsmoke, Episode 95: "The Gentleman"

Currency wars are a concern particularly at a time of weak global growth, as they could easily morph into outright trade wars. If countries find that their trading partners are manipulating their currencies, the natural response is often to erect trade barriers to keep out imports and also to help domestic exporters through subsidies and other schemes that make their goods more competitive in international markets. Given the extent of global trade flows, a disruption of trade could easily escalate and hurt world growth. This generates a tension—free trade can make everyone better off, but if countries see management of currency valuations as a key tool to promote their own exports, then trade itself becomes a subject of conflict rather than cooperation.

The challenge regarding currencies is how to manage what is essentially a zero sum game, which intrinsically makes it difficult to achieve a cooperative solution. There is a glimmer of hope—everyone recognizes that this game has the potential to turn uglier. If many countries try to skirt the (unwritten) rules at the same time, it can turn into a negative sum game, in which everyone is worse off. Therein ought to lie the basis for a coordinated solution.

However, coordination is easier in principle than in practice, especially at a time when economies around the world are hurting, beset by

weak domestic demand and anemic employment growth. Putting aside short-term considerations for the longer-term good of everyone requires more political will and leadership than it is reasonable to ask politicians to muster. Politicians tend to have short horizons, often tied to election cycles, and are responsible only to their domestic constituencies.

There is no good substitute for a tough independent marshal who can keep the game honest. But it is not easy to keep things peaceful when the marshal has limited firepower and has to resort to cajoling. What is required to keep currency wars from flaring up is an institution, or a set of institutions working together, with the credibility to set up and enforce a set of ground rules—both in terms of macroeconomic policies that affect currency values and the mechanics of international trade. The two areas have been separated and delegated to different institutions—the IMF and the World Trade Organization, respectively—perhaps rightly so, as they require different sorts of expertise. The results in the first area have not been encouraging.

Is Peer Pressure the Right Prod for Better Policies?

The IMF was set up by the advanced industrial economies in 1945 to promote the stability of the international financial system. Its role has evolved with changing times. In the aftermath of the Great Depression and World War II, there was a concern that attempts at currency devaluation were hurting global trade and world economic growth; a system of fixed exchange rates among the currencies of the major economies was seen as one way around this problem. Hence, the IMF's main role in the first couple of decades of its existence was to manage the Bretton Woods system of fixed exchange rates. This involved monitoring countries' policies and providing financing to countries that had short-term balance of payments deficits.

The Bretton Woods system broke down in the early 1970s, and the IMF's role then changed—it started promoting the free flow of capital, flexible market-determined exchange rates, and liberalization of financial and goods markets. Over time, the IMF has increasingly turned into an arbiter of individual countries' macroeconomic policies and has sought to become the lender of last resort to countries in dire macroeconomic distress. It now has a membership that encompasses 188 countries.

The World Trade Organization is responsible for monitoring overt and covert trade restrictions used by countries to block trade and for intermediating trade disputes among countries. Currency and other macroeconomic policies are not under its purview, although in principle, some of these policies can give countries an unfair advantage in international trade. For instance, an undervalued currency is effectively a subsidy provided to a country's exporters. The reality, however, is that the World Trade Organization has a more limited charter and little expertise on macroeconomic issues. Logically, the IMF is the only international financial institution capable of arbitrating a global truce on currency wars.

Events in the early 2000s gave the IMF an opening to intervene in currency disputes. There was a growing concern among policymakers and academics that large current account surpluses in China and other emerging markets, which were financing rising current account deficits in the U.S. and many other advanced economies, were creating unsustainable imbalances in global demand. In 2005, Ben Bernanke gave his speech about the global savings glut, which crystallized these concerns from the advanced economy perspective. Bernanke's phrase subtly but clearly encapsulated the view that global imbalances were to a large extent the fault of countries that were running surpluses. Officials in China and other emerging markets, particularly those in Asia running current account surpluses, lashed back at what they viewed as a blatant case of the pot calling the kettle black.

As this war of words was heating up, current account imbalances were growing steadily. With oil prices high, economies in the Middle East were also racking up current account surpluses, on top of the growing surpluses of China and many other emerging market economies. Although other advanced economies like Australia, Spain, and the United Kingdom were also running current account deficits, the U.S. deficit was expanding and accounting for most of the other side of global imbalances.

Trying to Make Peace

There were increasing concerns that the imbalances could end badly, perhaps with a fiery crash in the dollar's value. With recriminations flying all around about who was to blame for the rising imbalances, the senior

management of the IMF, egged on by the staff of the institution, decided to get the IMF involved as a neutral arbitrator. The management team wanted to take a stab at addressing the problem of global imbalances, but in a constructive way that would try to get all relevant parties involved rather than just point fingers at one or two countries.

In June 2006, with a flourish, the IMF announced its first multilateral consultation. Unlike its typical bilateral consultations conducted with one country at a time to assess that country's policies, the goal of this new initiative was to evaluate the consistency of policies among a group of major economies. The chosen ones, who all agreed to the process, were China, the euro zone, Japan, Saudi Arabia, and the United States. According to the IMF, the criteria for choosing them were that "The five economies are relevant to global imbalances in different ways: either because of their current account deficits or surpluses, or because they represent a very large share of world output."

The goals of the process were noble ones, intended to herald a new era of cooperation under the auspices of the IMF:

> The multilateral consultation approach is an example of the IMF's role as a vehicle for international cooperation. It provides a channel for analysis and consensus-building and a framework that helps our members overcome hurdles to individual action by emphasizing the benefits of collaborative actions.

As it turned out, each participant expected that the blame would be directed elsewhere, and that they themselves would get off lightly.

After technical meetings with officials of the relevant countries in the summer and fall of 2006, the time came for final high-level meetings between the head of the IMF and senior economic officials of each of those countries, typically the finance minister and central bank governor. These concluding meetings had been conducted with the other participating economies, and finally it was the turn of the U.S. All of a sudden, the U.S. lost all interest in the process, and its senior officials became unavailable for meetings to wrap up the report. Even though the IMF team was unlikely to learn anything new and surprising from such meetings, the fact was that the multilateral consultations could not be concluded without a formal high-level meeting with the senior officials of the world's largest economy. So the process dragged on for a number of months, and the report was finally published only in April 2007 after the meeting with U.S. officials was eventually completed.

Why did the U.S. back off? For one simple reason—the U.S. Treasury had presumed that the IMF would be critical of China's currency policies above all else, but it became clear that the report would in fact be more balanced, with equally forceful language about the risks posed by U.S. fiscal and current account deficits. Once China saw the game that was being played by the U.S., its officials became more reserved about the report and basically gave it a cold shoulder from that point on.

The report did not just stop with a diagnosis of the sources of global imbalances and other problems in the world economy. Each country purportedly agreed to undertake a set of reforms and policy changes, and the presumption was that those commitments could then be enforced through peer pressure. The IMF could claim victory for having generated such a broad range of commitments, conveniently ignoring the fact that the IMF and the international community had no leverage to get these large economies to stick to their pledges. For instance, for all the talk of reducing external imbalances, China's current account surplus hit a staggeringly high ratio of 10.7 percent of GDP by the end of 2007.

Moreover, much of the text in the document about promised reforms was in the vague parlance already in use by these governments. The ostensible Chinese commitment to improve the flexibility of the currency regime was based on this promise: "The exchange rate formation mechanism will be improved in a gradual and controllable manner." This formulaic language had been used by China's government for many years and means little of substance. Even the IMF acknowledged its executive board's assessment that the policy measures promised by each country did not amount to much: "While these policies are generally not as ambitious as the IMF has recommended in individual Article IV consultations or the WEO [World Economic Outlook], they nonetheless constitute significant steps forward."

Although it continued to pay lip service to supporting the multilateral consultations, Hank Paulson's U.S. Treasury Department decided that a more forceful approach was needed to deal with China and that the IMF would have to be the instrument. Facing increasing pressure from the U.S. to get tough on China's currency policies, the IMF managing director, a Spaniard named Rodrigo de Rato, then took a precipitous step that would bring improvements in the IMF's relationship with China to a grinding halt.

The IMF Attacks China, Then Retreats

The history of the rocky relationship between China and the IMF goes back more than a decade. China's currency policy has been a long-standing point of contention between its government and the IMF. There was a well-orchestrated routine for how the two sides handled this topic. I beheld this first-hand when I was appointed head of the IMF's China division in 2002. The China team would send out in advance an extensive list of questions for each meeting that we would have in Beijing and other cities. We would get written answers, and the meeting would then largely involve a recitation of many of those answers when we attempted to ask follow-up questions. The response to the question about China's exchange rate regime had been standard and unwavering: "China's exchange rate is determined by market forces and the authorities endeavor to promote the formation of the exchange rate in a stable manner."

Getting ready for our first trip to Beijing, my team added a follow-up written question asking about the workings of the market mechanism for the exchange rate. The response was one that nicely summed up the Chinese approach to market forces: "The exchange rate is fully determined by market supply and demand. The authorities endeavor to manage both supply and demand in a manner that promotes the stable formation of the exchange rate mechanism." In other words, they controlled both supply and demand to get the desired "market-determined" renminbi exchange rate. The Chinese government clearly had a unique perspective on the operation of market forces! By the time I left the China division and returned to the IMF's Research Department at the end of 2004, little progress had been made on the currency issue.

The next summer, China made a modest but dramatic move. On July 21, 2005, the government adjusted up the value of the currency by 1.8 percent relative to the dollar and announced that it would allow the currency to move a little each day relative to its level the previous day. The amount of volatility within each day would be limited to a narrow range of plus or minus 0.3 percent relative to the midpoint set by the People's

ank of China (PBC). In principle, the currency could thus appreciate
y 0.3 percent a day, which could add up to a lot over the course of even
he month.

The news was greeted with much excitement, as it was widely taken to e a first step in making the currency regime more flexible. The reality id not quite live up to the high expectations. In practice, the renminbi's ppreciation was slow, adding up to barely 5 percent relative to the U.S. ollar one year later. This change was viewed as being too slow to affect lobal imbalances, because China's trade surplus was continuing to xpand and its stock of foreign exchange reserves was growing by leaps nd bounds—it had crossed $800 billion by the end of 2005.

By 2006, the IMF was being pushed by many advanced economies, articularly the U.S., to strengthen its criticism of China's currency poliies. The IMF needed a better tool to be able to do this, and of course it vould not be tenable to single out China. In the middle of 2006, just s the multilateral consultation was getting under way, the IMF also lecided to start a review of its procedures for monitoring countries' nacroeconomic policies. The procedures were still governed by a docunent referred to as the "1977 Decision on Surveillance Over Exchange Rates," which clearly needed some updating, as it was toothless on the ubject of currency-related policies. It was a reasonable argument that, vith rising global financial integration, any country's tampering with exchange rates could affect other countries as well and that the IMF therefore needed to beef up its reviews of currency policies.

The process of revamping the monitoring procedure was resisted by many emerging markets that saw it as simply another tool for the IMF to criticize their policies at the behest of the advanced economies. That the multilateral consultation had fizzled to a damp squib by early 2007 made this issue highly charged, as it had become clear to the emerging markets that the deck was stacked against them as the advanced economies would always have their way. Nevertheless, the understanding was that the revamp would go forward, be debated by the IMF's executive board toward the end of 2007, and become operational soon thereafter.

During the IMF team's visit to Beijing in May 2007, the Chinese expressed displeasure with the process, but they were clearly pulling their punches until that year's report on China was out of the way. The IMF's

board was to discuss that report in early July, and the expectation was that the recommendations would go into effect soon thereafter.

Then, in the first week of June 2007, IMF Managing Director Rodrigo de Rato dropped a bombshell.

A Blow to the Chin

De Rato called for an urgent meeting of the IMF's executive board and, with a shorter advance notice period than usual, rammed through the new policies. On June 15, the IMF adopted a new set of procedures for monitoring each country's exchange rate policies, replacing the procedures that had been in place since 1977. The way this change was railroaded through the IMF's executive board was clearly not standard, and the strong feeling in the building was that de Rato had caved in to intense pressure from the U.S.

The document summarizing the new procedures contained strong language on currency manipulation, making it clear that the IMF was arming itself with tools to take on countries that were manipulating their currencies for their own advantage. Despite all the careful language, it was clear that this was to be a cannon squarely aimed at one country—China. The language echoed what the U.S. had been saying all along about China's currency policies—that they were designed to give an unfair competitive edge to China's exports and were the key contributors to global financial instability:

> The new Decision provides more complete guidance to members for the conduct of their exchange rate policies, so as to cover all major causes of external instability rooted in these policies. The 1977 Decision enjoined members to avoid exchange rate manipulation for specific purposes, in particular to gain an unfair competitive advantage over other Fund members. The new Decision adds a principle recommending that members avoid exchange rate policies that *result* [emphasis in original] in external instability, regardless of their purpose, thereby capturing exchange rate policies that have proven to be a major source of instability over the past decades.

Governor Zhou Xiaochuan of the PBC and his colleagues were apoplectic. They knew that this move by the IMF would be seen as a slap in China's face. The PBC had used up significant political capital to get the top leadership of the Chinese Communist Party to agree to a delinking of the renminbi from the dollar in June 2005. Despite strong opposition from the Ministry of Commerce, which saw itself as the defender of the interests of exporters, the PBC had convinced top political leaders that a modest shift in currency policies would help China earn a lot of brownie points in global economic discussions. And now, two years after that move, the IMF was instead going to take China to the woodshed.

Rumors began circulating in Beijing that Governor Zhou had overplayed his hand and would be shunted aside after this fiasco. It was hard to believe that anything to do with the IMF could reverberate among high-level political circles in Beijing. However, the Governor was constantly under attack from traditionalists in the Party, who saw him as much too aligned with the West and willing to undertake reforms that may not necessarily be good for China. The imbroglio with the IMF provided an opportunity for reactionaries in the Party to argue that the West—especially the U.S. and its lackey, the IMF—would never be satisfied with anything China did and would always ask for more.

The reaction was swift and sharp. China quickly shut down the process of its bilateral consultation with the IMF. That year's report had already been circulated to the IMF's executive board, something normally done two weeks before the meeting. But the report was put on hold as the Chinese rejected even the notion of holding a board meeting to discuss that year's report. Instead, they asked for a new team to come to Beijing in the fall of 2007 and explain to them how exchange rates would be assessed under the new methodology—which the Chinese already knew perfectly well—and then come back again to explain how the new methodology would be applied to China. The IMF obliged, then kept updating and rewriting its report every couple of months. But the hope that the Chinese would come around and approve the report—a necessary step before it could be discussed by the IMF's executive board—proved futile.

Now the IMF had a problem on its hands. It could not claim to be doing effective surveillance of the global economy when it could not report on meetings with the government of the second-largest economy in the world. In August 2008, the IMF tried to mollify China by setting

up an "ad hoc consultation" to discuss exchange rate policies on a separate track. The Chinese refused to play ball and, as the financial crisis started to hammer the world, the stalemate continued.

Beating a Retreat

Two years later, on June 22, 2009, the IMF mounted a full-scale retreat. Now that the U.S. had its hands full coping with the financial crisis, the IMF could go back to tending to its other large members without fear of recriminations from its largest shareholder. It felt compelled to do this, as it could hardly claim to be an objective referee of global economic policies if it could not publish a report evaluating the policies of the economy making the biggest contribution to world growth.

The document announcing the retreat was put out quietly and with minimum fuss. It was titled "The 2007 Surveillance Decision: Revised Operational Guidance." It started with a remarkably blunt preamble, acknowledging that the new approach had blown up in the IMF's face:

> Implementation of the Decision appears to be broadly achieving its objectives, but suffered one major setback. The 2008 Triennial Surveillance Review (TSR) found that the focus of surveillance has sharpened significantly and that the coverage and quality of analysis of exchange rate issues has improved. However, the attempt to apply exchange rate-related "labels"—for instance, the use of specific terminology such as "fundamental misalignment" . . . has proved [*sic*] an impediment to effective implementation of the Decision. The TSR noted widespread concerns about cross-country consistency in exchange rate analysis, and that undue importance should not be attached to precise calculations, given the inherent methodological and data limitations.

At the IMF, one quickly learns what certain phrases mean. To say that a policy "appears to be broadly achieving its objectives" implies that it is not working too well.

The next paragraph of the report was remarkable for an IMF document. Without any further attempt to gloss things over or suggest that they were "broadly" going according to plan, the report made it clear that the 2007 decision had damaged the IMF's ability to monitor and evaluate currency policies. Although not explicitly naming China, the report also acknowledged that that decision was directly responsible for the hold-up in consultations with "a few members":

> In addition, there were indications that the attempt to apply labels may even have *weakened* [emphasis in original] the candor of some assessments. Moreover, difficulties in implementing this aspect of the Decision have been the main reason why Article IV consultations with a few members have fallen far behind schedule. These extensive delays have resulted in *less* [emphasis in original] focus by the IMF on members' exchange rate policies in key cases. In those cases, and in putting together a multilateral picture of the world economy, this has undermined IMF surveillance, running counter to the objectives of the 2007 Decision and damaging the IMF's credibility.

The IMF is not often given to such searing indictments of its own policies. What made it easier in this case is that the previous policy was tied to Rodrigo de Rato, the managing director who had pushed it through. De Rato left the IMF in October 2007, so the new managing director, Dominique Strauss-Kahn, was free to blame it all on his predecessor and go back to a clean slate.

After having declared the new approach a failure, the institution then announced its retreat. Country reports would no longer have to make explicit calls about a currency's undervaluation and would have to acknowledge that it was difficult to tell whether a currency's value was at a suitable level or not:

> the guidance would be revised to eliminate the requirement to use specific terms such as "fundamental misalignment" and to make a number of other changes that will acknowledge the large degree of judgment required in the analysis and, in practice, reserve findings on the nonobservance of a Principle for the most egregious cases. Consequently, management also intends to withdraw its statement of August 4, 2008 on the use of ad hoc consultations, which, contrary to expectations, did not help bring to conclusion long-delayed consultations. These changes will facilitate more effective surveillance.

China graciously accepted the IMF's surrender. On July 8, 2009, after a three-year hiatus, the IMF's executive board finally discussed the China report. Nevertheless, the report was not published that year, as the language about China's currency was still too strong for the government's comfort.

By 2010, the Chinese indicated that they had no objections to the IMF publishing the report from that year's consultation—so long as their disagreement with the IMF's views was highlighted in the report. So that year's published report contained this convoluted boilerplate statement about the currency: "Staff believe that the renminbi remains substantially below the level that is consistent with medium-term fundamentals" and included a strong denial from the authorities that this assessment was based on an analytically sound argument. The report danced around the word "undervaluation," and it included laudatory remarks about what China had done with its currency regime while guardedly describing what it needed to do in the future:

> The central bank's recent decision to return to the managed floating regime that was in place prior to the global financial crisis is extremely welcome. This decision affords the central bank considerable flexibility to tighten monetary conditions through an appreciation of the exchange rate. Going forward, the central bank will need to avoid having movements in the real effective exchange rate determined by the relative strength or weakness of the U.S. dollar, particularly given the very different cyclical conditions in the two economies.

The outcome of these episodes was clear. The IMF had been defanged and would no longer publicly take on China or any of the major advanced economies on this issue. Each country was now on its own in the currency wars.

The developments described in this chapter span the period leading up to and covering the initial phase of the global financial crisis. When the crisis hit, however, leaders of the world's major economies closed ranks, and the spirit of cooperation was revived. Would the collaborative approach built in the darkest days the world economy has experienced in a long time prove enduring or not? While this chapter has established that the answer is negative in the context of currency wars, the next chapter investigates the broader aspects of international policy coordination and how those fared.

9

It Takes Twenty to Tango

ANDREA (Galileo's student): *Unhappy is the land that breeds no hero*

GALILEO: *No, Andrea. Unhappy is the land that needs a hero.*

Life of Galileo, Bertolt Brech

April 2, 2009 dawned as a cloudy and cool day in London, typica weather for one of the world's leading international financial The mood was equally gloomy, with a sense of foreboding, in th of global finance. That day marked the culmination of a tense t summit at which the city hosted the leaders of the world's most p economies—the Group of 20 (G-20). There had been a great drama overnight as the leaders, along with teams of aides, sought tune their communiqué—the official statement that would sur their discussions and commitments. This was to be a declarat grand plan to stem the crisis and get the world economy back on There was eager anticipation that the leaders would announce m policy measures.

Gordon Brown, the British prime minister, would have his before the cameras later that day. Striding boldly to the podi standing before an audience that included many journalists from the world hanging onto his every word, he made a dramatic st about how the G-20 had decided to act together to shore up wor cial markets and get started on reforming the international n system. He also announced that the countries had agreed to ad lion to the pool of resources of the major international financia tions, mostly the IMF. These institutions could use the money t poorer countries from the fallout of the crisis. The rhetoric was befitting the occasion:

> The old Washington consensus is over. Today we have reach new consensus—that we take global action together to deal

ational financial markets has led to the dollar ominent reserve asset. Even though the world's ors in search of a safe haven are eager to shift choices are limited and are likely to remain so The harsh reality is that at present, there are no tives to the dollar.

eral. History has taught us repeatedly that it is for the possibility of small trigger events set- scale changes that can rock civilization. A cen- n of Archduke Franz Ferdinand of Austria in . One does not even have to reach that far back es. The self-immolation of Mohamed Bouazizi, eet vendor, in December 2010 set off a chain of Arab Spring revolution that has dramatically landscape in the Middle East.

xamine the possibility that the realm of global nt when it comes to small events that can some- er cataclysmic changes.

14

Could the Dollar Hit a Tipping Point and Sink?

That one dramatic moment in an epidemic when everything can change all at once is the Tipping Point.

—Malcolm Gladwell

In 1987, Per Bak, Chao Tang, and Kurt Wiesenfeld published a paper in *Physical Review Letters* on self-organized criticality in nature. In their model, a system is spontaneously attracted to its critical state and, once it reaches its critical state, the effects of small changes become unpredictable. A good example is a sandpile on which grains of sand are being sprinkled in no specific order. Once it has reached its critical state, the addition of one grain of sand either has no effect or causes large avalanches that could lead to the collapse of the entire pile.

The principle is quite different from that of phase transitions, where the critical point is attained by precisely tuning a particular parameter. For instance, there are specific combinations of pressure and temperature points at which water turns into ice or into steam. These are big but predictable changes and to some extent can be controlled. The insight in the pathbreaking 1987 paper was the discovery of a mechanism by which complexity could emerge spontaneously from simple local interactions, without requiring careful fine-tuning of any parameters of the system. To an ant on the sandpile, the system looks as stable before and after it has reached its critical state, even just before the pile collapses.

The challenging question for those of us on the sandpile that is the global monetary system is whether it is already in a critical state, vulnerable to collapse at the slightest tremor. There are some ominous signs. The macroeconomic data paint a sobering picture of worsening public debt dynamics and a sharply rising public debt burden in advanced economies, along with a high level of dependence on foreign investors in search of a safe haven in the case of the U.S. These economies have had the benefit of being able to issue sovereign debt in their own currencies, in effect allowing them to transfer currency risk to the foreign purchasers of their sovereign debt.

Advanced economies have not been subject to "original sin" (being able to issue debt only in foreign currencies), but their accumulated sins might eventually catch up with them. With low levels of population growth, rapidly aging populations, and rising costs of health care and other entitlement programs, the U.S. and other advanced economies could be in far worse shape beyond this decade if they do not bring their public finances under control.

High and rising public debt levels among advanced economies pose serious risks to global macroeconomic stability. At present, there is strong demand for government bonds of the reserve currency economies, but this is a fragile equilibrium. As demonstrated by recent events in the euro zone, bond investors—both domestic and foreign—can quickly turn against a weak country with high debt levels, leaving the country little breathing room on fiscal tightening and eventually precipitating a crisis. The U.S. is large, special, and central to global finance, but the tolerance of bond investors may have its limits. If so, where are the limits?

Research on Tipping Points: Handle with Care

Based on their extensive and pathbreaking research on debt crises, Carmen Reinhart and Kenneth Rogoff of Harvard University suggest that once public debt exceeds 90 percent of GDP, additional debt accumulation is associated with lower growth. Gross public debt in the U.S. is now over 100 percent of GDP, which puts the U.S. in the growth danger zone based on this criterion. In their academic writings, Reinhart and Rogoff were careful to point out that they had only detected a correlation, not a causal relationship between high debt and growth. These subtleties became blurred in translation to the world of public policy. The research proved influential during the fiscal austerity debates in the U.S. and Europe. It has subsequently come under fire, partly on account of some conceptual and data issues and partly because some policymakers and technocrats have used these findings to argue for fiscal austerity on the grounds that high debt levels *cause* lower growth. Still, these findings

cannot entirely be dismissed, as other researchers have also found that high levels of government debt are associated with lower growth.

Even taken at face value, this research does not support the notion of a tipping point for the level of debt, beyond which bond markets would force the borrowing costs on public debt to increase sharply and threaten a country's solvency. Other recent research that directly tackles the question of whether there is such a tipping point suggests that countries with public debt above 80 percent of GDP and persistent current account deficits are vulnerable to a fiscal crunch. This could happen if investors get nervous about the level of debt, pushing up interest rates and making the debt problems more severe. It certainly has not been a problem for the U.S., even though all the danger signs identified by such researchers are flashing red. Whether this benign outcome is simply an artifact of the unconventional monetary policy actions of the Federal Reserve, which have included directly purchasing large quantities of government bonds and holding down long-term interest rates, remains to be seen.

The high level of U.S. debt, implying a large pool of debt securities, as well as the stability and liquidity of its government bond markets give the U.S. a tremendous advantage. But a tipping point could come if investors lose faith in the ability of the U.S. to honor its debt obligations without resorting to inflation. This does not mean that the U.S. will actually have to pay off its stock of outstanding debt, but the ability to roll over that debt will shrink as the level of debt rises. For now, foreign investors are locked into U.S. debt, but that could change over time as other economies' financial markets, especially those of emerging market economies, develop and offer a broader range of "safe assets." That nothing catastrophic has happened in U.S. debt markets so far despite rising debt levels is not, or ought not to be, much cause for complacency.

Although this logic is compelling, the reality appears quite different. Curiously, the available episodic evidence—some of which was discussed in Chapter 1—in fact suggests that there are more reasons to be sanguine than overly concerned. It is also possible that the research showing a correlation between higher levels of public debt and lower growth is less relevant for the U.S. compared to other economies, given the strong demand for safe assets and large official capital outflows from emerging markets.

So, is the dollar immune from a precipitous fall? History tells us that crises have a way of sneaking up on financial markets. One important lesson from past crises is that if something looks too good or too strange to last, it probably won't. More often than not, the longer the inevitable is postponed, the greater the likelihood that there will be an explosive burst rather than a painful but smaller pop.

What could trigger a tipping point that sends U.S. bond prices tumbling? There are many wild cards, with most of them seen as low probability events. But the global financial crisis should have made it clear that "black swans" are not just figments of the imagination but represent real risks of ignoring very low probability but extremely disruptive events.

A Red Wild Card

Take one potential tipping factor—China. Among the foreign purchasers of U.S. Treasury bonds, China has been a force to reckon with. Its reported purchases of U.S. Treasuries over the period 2008–12 amounted to about $750 billion, nearly a quarter of overall foreign investors' purchases of $3.2 trillion. During this period, rumors that China might be taking steps to increase the currency diversification of its foreign exchange reserves and shift away from the dollar were enough to cause tremors in currency markets. Even before that, the pronouncements of Chinese officials were being sifted carefully for evidence about China's intentions concerning its dollar reserves.

Yu Yongding, an Oxford-educated Chinese economist, has been on the frontlines of advocacy for greater liberalization of China's exchange rate. He was an academic member of the PBC's monetary policy committee from 2004 to 2006, a period when he made waves by pushing for further liberalization. On November 25, 2004, he was at an event in Shanghai, where he was quoted as saying that China had taken steps to reduce its holdings of U.S. Treasuries. Right after his speech was reported, the dollar fell against other major currencies. The next day, following reports that Yu said he had been misquoted, the dollar was back up. Although it is hard to know what drives currency movements day to day, these and other widely reported episodes of Chinese officials' statements rattling currency markets indicate how fragile sentiments in markets are.

An Atomic Weapon with a Nasty Recoil

Would China consider the use of its holdings of Treasuries as a weapon against the U.S.? In the Q&A posted on its website in 2011, China's State Administration of Foreign Exchange attempts to be clear that its investment decisions will be based only on rational economic factors and that its reserves will not be used as a weapon of international diplomacy:

> Q: Will China use its foreign exchange reserves as a trump card or as an atomic weapon?
>
> A: We have always emphasized our role as a responsible long-term investor. During the investment and operations of our foreign exchange reserves, we will strictly follow the rules of the market and the laws and regulations of the country concerned . . . we will use the reserves as a financial investor and will not seek control over those investments . . . we will actively cooperate with those countries that welcome our investment. But if any country is doubtful, we will slow down and try to reach agreement through communications.
>
> As has been proven by the facts, the above concerns and worries are completely ungrounded.

Perhaps this response is meant more as a reassurance to the rest of the world rather than to Chinese citizens. The conventional wisdom is that China would be playing with fire if it tried to dump a significant portion of its dollar reserves. Attempting to sell even 10 percent of its reported holdings of U.S. Treasuries, which would amount to at least $130 billion, would probably be enough to set off panic in bond and currency markets. In ordinary circumstances, this amount would not be large enough to create tremors in such a deep and liquid market. But these are not normal times. With bond investors already nervous about the high and rising level of U.S. debt, such an action could act as a trigger around which negative market sentiments coalesce, especially if China's actions were seen as presaging similar moves by other foreign central banks.

The cost of U.S. government borrowing would rise, and the dollar would fall, which would certainly hurt the U.S. But China would hardly be immune and would itself stand to lose a lot. A fall in Treasury bond prices would result in a substantial drop in the capital value of China's existing holdings of U.S. government bonds. Moreover, if the dollar depreciated against the renminbi, then the renminbi value of those bonds would fall even more—in short, a bad deal for China in many respects. It is also not easy to envision what China could do with the money if it pulled significant sums out of U.S. Treasury bonds. Its sovereign wealth fund has enough challenges on its hands trying to find good investments, the gold market remains small, and other global bond markets simply do not have the capacity to absorb hundreds of billions of dollars.

This logic suggests that China cannot credibly threaten to disrupt U.S. financial markets without shooting itself in the foot. The logic is correct in purely economic terms. But politics sometimes overrides economics, and that may be the true wild card.

Geopolitics Takes Precedence over Economics

In early 2008, China cracked down hard on rioters in Tibet. These actions had a palpable effect on the presidential election campaign in Taiwan, which was heading into its critical phase. Before the riots in Tibet, a victory for Kuomintang party candidate Ma Ying-jeou, who favored stronger linkages with Beijing, looked like a sure bet. The events in Tibet shifted momentum toward Frank Hsieh, the candidate of the ruling Democratic Progressive Party, which preferred a harder line toward Beijing. As China made it clear that it was not happy with the way things were going, the U.S. dispatched two aircraft carriers for joint military exercises with Taiwan, further inflaming tensions in the region.

I made a trip to Beijing in March 2008 while these tensions were brewing. This was a few months before the city was to host the Olympic Games. China clearly viewed the Olympics as an opportunity to show the world that it had definitively established itself as a major sporting, economic, and political power. Beijing was being spruced up, and its grimier side was being sanitized, so no signs of poverty or disorder would be allowed to besmirch the reputation of a great power. Plans were even afoot to limit traffic on the streets and get factories around Beijing to shut down for a short period before the games started in order to alleviate concerns about pollution. Clearly, the games were a big deal, and no expense or effort was going to be spared to ensure their success.

Imagine then my surprise when, at virtually every meeting with senior officials during that visit, the one theme that inevitably came up was Taiwan. The officials made it clear that if Taiwan were to make any move to exert freedom from the Mainland, then China would have no choice but to intervene by force. They dismissed as being of little consequence any threat that military intervention could invite a boycott of the Olympics by certain countries, such as the U.S. The subtext was that national pride and sovereignty were far more important than any damage to China's moment in the sun as the host of the Olympics.

This approach is consistent with a pattern that China has demonstrated in its past actions, making it clear that it puts territorial sanctity above other political and economic considerations. A more recent example of this is the dispute with Japan over a string of barren islands in the East China Sea, referred to by China as the Diaoyu Islands and by Japan as the Senkaku Islands.

Barren Islands Become a Bone of Contention

These uninhabited islands are claimed by China, Japan, and Taiwan. The islands have no intrinsic value but are strategically valuable, because they are close to key shipping lanes and fishing grounds and there is also the prospect of oil reserves nearby. In September 2012, the Japanese government purchased three of the disputed islands from their private owner. The objective of the Japanese government was ostensibly to prevent the owner or others from using the islands for nationalistic expressions that would inflame tensions with China.

The action had the opposite effect. The Chinese saw the purchase as a provocative move by Japan to reinforce its territorial claim over the islands. Official condemnations from Beijing followed swiftly, along with street protests in many cities around China. Cars made by Japanese automakers were burned or smashed on the streets of many Chinese cities, and many Japanese manufacturers temporarily shut down their factories in China to avoid further damage.

China clearly did not feel the need to be subtle or nuanced in showing its displeasure about the escalation of the territorial dispute with Japan. In

October 2012, as Japan was preparing to host the prestigious IMF–World Bank annual meetings in Tokyo, Chinese banks started pulling out of events they had sponsored. At the last minute, China's senior officials also boycotted the meetings, which featured the senior-most officials—finance ministers and central bank governors—from practically every other country in the world. China's finance minister and central bank governor were conspicuous by their absence from the meetings. Governor Zhou had been slated to give the prestigious Per Jacobsson lecture on the last day of the meetings. His lecture was instead read out by another Chinese official.

China's actions were obviously intended as a slap in Japan's face, at a time when Tokyo was hoping to showcase its economic restoration after the March 2011 Sendai earthquake and tsunami. Chinese officials' no-show became one of the big stories of the meetings, which was certainly not what the hosts had hoped for.

An article published in an official newspaper, the *China Daily,* on October 26, 2012, summed up China's views on the matter. The article began on a gleeful note:

> Despite China not imposing any economic sanctions, the Japanese economy has been badly hit. The spontaneous anti-Japanese demonstrations in China, the cancellation of visits by Chinese nationals to Japan, and boycott of seminars held by business groups, the media and think tanks have dealt a blow to the Japanese economy.

The article then laid out the official view that China did not see the island purchase as a matter of negotiation but as a land grab by Japan that needed to be beaten back:

> China has used its diplomatic channels to make it clear to the international community that it wants to resolve the Diaoyu Islands dispute with Japan through diplomatic negotiations. China's State leaders, the Ministry of Foreign Affairs and other government agencies and civil organizations have declared time and again that the so-called nationalization of the Diaoyu Islands by Japan is illegal and China will "make no concession" on issues concerning its sovereignty and territorial integrity.

The article then went on to make it clear, in case there were any remaining doubts, that China's actions, such as senior officials' boycott of the IMF–World Bank meetings, were intended to convey the government's displeasure with Japan's stance on the matter:

> China has not only canceled many activities to commemorate the 40th anniversary of the normalization of its diplomatic relations with Japan and called off high-level governmental and military reciprocal visits, but also boycotted a series of international conferences and cultural activities in Japan, showing its determination to safeguard national sovereignty and territory.

The takeaway from these episodes is that, in line with a pattern demonstrated by its past actions, China is raising the stakes on geopolitical maneuvering. For the Chinese Communist Party, maintaining legitimacy is a tricky balance between delivering economic growth and stoking nationalistic pride. Given its unwillingness to entertain any serious moves toward an open democracy, unleashing nationalistic sentiments provides a safety valve for social restiveness. Perhaps one ought to be cautious about dismissing as impossible a situation in which, even at a short-term economic cost to itself, China might be willing to put the U.S. through the economic wringer.

How Big Would the Disruption Be?

The credibility of any threat to dump U.S. Treasury bonds depends on how disruptive such a move would be to those bond markets. Estimates by researchers at the Federal Reserve suggest that a decline in foreign official inflows into U.S. Treasuries of about $100 billion in a given month could push up five-year Treasury bond yields by about 40–60 basis points (100 basis points amounts to 1 percentage point). But such an increase in bond yields is also likely to pull in more foreign investors, dampening some of the initial rise and reducing the effect to about 20 basis points, which would be a more modest increase. In principle, these numbers suggest that it would take a big shift in foreign official inflows to raise interest rates by a full percentage point. It should be noted that the estimates are based on the effects of foreign inflows on Treasury bond yields in normal times, as the researchers' dataset ends in 2007 and excludes the crisis period.

With the financial crisis fresh in investors' minds, a significant shift in patterns of official inflows could have unpredictable effects on other investors and on bond markets. A big move away from U.S. Treasuries by the central banks of China or other emerging markets could spook private investors as well and set off more panic. This is uncharted territory, however, and any predictions about how investors will behave at a time of enormous stress in financial markets may have little to do with patterns of behavior in normal times.

Extrapolating from some aspects of what happened during the financial crisis, one cannot rule out the alternative possibility that turmoil in U.S. bond markets could spill over into even greater turmoil in other financial markets. The latter would eventually drive more money into U.S. bond markets on account of the safe haven effect, thereby more than offsetting the initial rise in bond yields.

Moreover, the Fed has left little doubt that it will step in and take extreme measures when necessary to stabilize the U.S. financial system. The Fed could easily mop up any debt sold by foreign official investors, given its demonstrated willingness to expand its balance sheet by buying Treasury bonds when it deems such a step to be necessary. This willingness substantially reduces the credibility of any foreign government's threat to destabilize U.S. bond markets by dumping even a portion of its holdings of those bonds.

In a report to Congress in July 2012, the U.S. Department of Defense examined the national security risks to the U.S. that China's ownership of its debt posed. The conclusion of the report was relatively sanguine:

> attempting to use U.S. Treasury securities as a coercive tool would have limited effect and likely would do more harm to China than to the United States. As the threat is not credible and the effect would be limited even if carried out, it does not offer China deterrence options, whether in the diplomatic, military, or economic realms, and this would remain true both in peacetime and in scenarios of crisis or war.

The U.S. apparently does not view China's holdings of U.S. debt as a threat or as giving the Chinese any leverage in bilateral negotiations.

The Risk of an Own Goal

The U.S. Treasury bond market is vulnerable enough that one does not necessarily need to count on external agents to bring things to a tipping point. Even domestic investors may at some point start to have second thoughts about relying on U.S. Treasury bonds for safety or at least start demanding higher returns for investing more in those bonds. The high level of public debt is risky, because a small change in interest rates can have a large effect on debt financing costs. The U.S. Congressional Budget Office has warned that

> a growing level of federal debt would . . . increase the probability of a sudden fiscal crisis, during which investors would lose confidence in the government's ability to manage its budget, and the government would thereby lose its ability to borrow at affordable rates.

With the level of debt held by the public (excluding the Fed's holdings) equivalent to three-fifths of annual GDP, a 1 percentage point increase across the entire spectrum of interest rates could mean an increase of about 0.60 percentage points of GDP in government expenditure on debt financing. Such increases can quickly squeeze out other discretionary government expenditures.

In practice, the increase in financing costs is likely to be lower, as it depends on the maturity structure of government debt—the time profile for repayment or refinancing of that debt. Longer-term debt does not have to be refinanced as often, whereas short-term debt is more exposed to interest rate increases. The average maturity of U.S. Treasury debt had fallen steadily from a peak of 71 months in 2001 to 48 months in late 2008. This meant that the U.S. needed to refinance an amount equivalent to half its entire stock of debt roughly every two years.

After the crisis hit, even as the stock of U.S. net public debt was exploding, the maturity structure of debt was in fact turning more favorable. This happened because the U.S. Treasury wisely used to its advantage the rising global demand for longer-term bonds. By June 2013, the average maturity had risen to 66 months, well above the average of 58 months for 1980–2010. Part of the increase in the average maturity of Treasury debt was accounted for by the Fed's purchases of Treasury notes and bonds (securities with a maturity of more than one year) as part of its quantitative easing operations. From the end of 2008 to June 2013, the level of outstanding Treasury bonds and notes held by the public (including the Fed) rose by $5.5 trillion. Fed purchases of these securities accounted for $1.4 trillion or roughly one quarter of this increase. Thus, the increase in the average maturity of debt held by private investors is somewhat lower.

Nevertheless, the increase in the average maturity of Treasury debt provides a layer of security, as a rise in interest rates will not immediately feed through into a proportionate increase in debt financing costs. Still, the sheer volume of debt, the expected trajectory of future debt, and the prospect that market turmoil could lead to a sharp spike in rates leave little room for comfort. The amount of expected future accumulation of debt is enormous. The U.S. Office of Management and Budget forecasts that net borrowing from the public will amount to more than $4 trillion over 2013–17 and an additional $3 trillion or more over the following five years.

Mixed Signals

A complex balance of forces is at play in the market for U.S. Treasury debt. An increase in bond yields for the right reasons—a recovery in economic activity, a tighter labor market, and a modest increase in expectations of wage and price inflation—would not be such a bad thing. Interest rates typically rise and fall along with the business cycle, so higher bond yields relative to those that prevailed in 2012 and through the summer of 2013 would signal a return to normalcy. It could create the right incentives for fixed-income investors to come back into the bond market for the traditional reasons—the prospect of earning a modest rate of return with little risk. Their reappearance would be healthier than the force that is now driving investors into that market—the willingness to accept practically a zero rate of return to minimize risk in a highly

volatile environment. In contrast, an increase in bond yields attributable to rising concerns about the level of debt and a possible surge in inflation without a strong recovery would be harmful. It could quickly spin out of control as investors rush for the exits.

The trouble is that these two outcomes are observationally equivalent in the short run, and investors who are unable to tell them apart could mistake one for the other, setting off a panic-driven dumping of U.S. Treasury bonds and dollars. Still, it is not easy to envision a scenario in which the dollar comes crashing down. Indeed, one small and somewhat dubious source of comfort is that such a situation of panic might again be self-correcting. Individual investors could find small supplies of other high-quality assets, such as investment-grade corporate paper, to shift their savings into. But larger institutional investors and the market as a whole simply lack viable alternatives either in the U.S. or abroad. Thus, in yet another irony, the panic set off by such an event would simply lead to money pouring back into the dollar.

A Blast from the Past

Although the dollar has been at the center of the international monetary system for decades, it has come under threat on many occasions in the past, and there have been times when the U.S. needed financing from abroad to support the dollar's external value. Those episodes might seem to provide an object lesson on how a dollar crisis might unfold. Instead, they actually illustrate how sticky the dollar trap is.

Roosa Bonds

In 1961, when the international monetary system was still on the gold standard, there were concerns that the dollar was vulnerable to a run by countries who wanted to convert their dollar holdings into gold. Many foreign central banks had built up large holdings of dollars, well beyond the levels needed to ensure their own currencies' convertibility into dollars. U.S. gold stocks, which in 1950 were enough to cover foreign central banks' dollar holdings many times over, had fallen by 1960 to a level barely sufficient to cover those holdings.

Robert Roosa, then the undersecretary for monetary affairs at the U.S. Treasury, went on the offensive on multiple fronts to protect the dollar's primacy in the international monetary system. He pushed for the creation of a "gold pool," a mechanism for merging gold reserves of major central banks to thwart speculation, helped create a new lending facility at the IMF called the General Arrangements to Borrow, and jawboned surplus countries like Germany and Japan to stimulate their economies to boost domestic demand.

The final arrow in his quiver was the creation of the Roosa bonds. These were nonnegotiable U.S. government bonds denominated in foreign currencies that were sold to foreign central banks. These bonds transformed a portion of dollar holdings of foreign central banks into longer-term debt that was protected from a fall in the dollar's value and were therefore designed to slow the conversion of foreign dollar holdings into gold. The bonds could be redeemed whenever their holders chose. Some central banks were reluctant to buy the bonds, but for others, these bonds made it easier to justify their large dollar holdings. From 1962 to 1974, the U.S. issued $4.7 billion worth of Roosa bonds, which were purchased by the central banks of Austria, Belgium, Germany, Italy, the Netherlands, and Switzerland.

Roosa bonds and currency swap lines that existed in the 1960s have been characterized as "bribes" in the form of a portfolio substitute for gold offered by the U.S. to other central banks. These facilities have served as a substitute for conversion of dollars into gold at times of crises. Such measures taken by the U.S. Treasury and Fed were designed to stabilize the international monetary system and, more importantly, to maintain the dollar's primacy. And it is worth noting how other countries reluctantly but eventually fell in line with these plans, as a precipitous fall in the dollar's value would have hurt them as well by causing turmoil in global financial markets.

That would not be the only time in recent history when the U.S. issued government bonds denominated in foreign currencies.

Carter Bonds

In the fall of 1978, there were growing concerns about weak U.S. macroeconomic policies, with inflation rising rapidly. Currency markets were in disarray, with the U.S. dollar under severe downward pressure and falling against other currencies, including the German deutsche mark and the Japanese yen.

On November 1 of that year, the Carter Administration announced a multipronged dollar defense package. The package included a sharp 1 percentage point increase in the main policy interest rate (the Fed's discount rate) and a $30 billion package of foreign currency resources to facilitate exchange market intervention. The $30 billion comprised $15 billion in currency swaps with foreign central banks, $5 billion from the IMF, and up to $10 billion in "Carter bonds." These bonds were to be denominated in foreign currencies, so the U.S. Treasury was encouraging foreign central banks to buy the bonds by taking upon itself the currency risk that would arise from a falling dollar. The issuance of these bonds could also be seen as signaling a commitment by the U.S. to take necessary steps to support the dollar's external value.

By January 1980, the U.S. had issued about $6.5 billion of Treasury securities denominated in deutsche marks and Swiss francs. The dollar defense package was an impressive one. Because it was backed up by strong monetary and other macroeconomic policy changes, it proved effective. The package quickly stabilized the dollar's value, and the dollar even rose in subsequent years, earning a tidy profit for the U.S. government when it retired the Carter bonds fully in July 1983. Because the dollar had appreciated relative to the currencies that the bonds were denominated in, the U.S. had to pay fewer dollars to redeem those bonds, hence the profits.

Obama Bonds?

In principle, the U.S. could issue similar instruments now if global demand for dollar-denominated assets were to decline and the economy needed financing for its large current account deficits. This action might temporarily prop up the value of the dollar, which would otherwise have to decline to bring down the current account deficit. Of course, the U.S. government would be unlikely to take such an action at a time when it has in fact been trying to guide the value of the dollar downward to boost exports. After all, the whole point of the ongoing currency wars is that other countries are doing all they can to prevent their own currencies from appreciating against the dollar, as that would hurt their export competitiveness.

Either way, the U.S. would be in a favorable position, even if it did issue such bonds. If the dollar stayed strong, the U.S. would continue getting cheap funding from foreign countries. If the dollar fell in value and U.S. inflation rose, the country would face a loss on its new foreign currency bonds but would foist on foreign central banks and other foreign investors an even larger loss on the enormous stock of dollar-denominated assets that they already hold. In short, any drastic changes to the dollar-centric system would be a lose-lose proposition for foreign countries, strongly favoring the perpetuation of the status quo.

An Unstable Foundation

One legacy of the global financial crisis is that it has stripped away the veneer of safety in a broad class of other financial assets, even as it has created greater demand for safe assets. This point, discussed in previous chapters, and the analysis in this chapter together bring us right back to the question we started with: *If not the dollar, and if not U.S. Treasury debt, then what?* The edifice of global financial stability seems to be built on this fragile foundation. Even if the world recognizes it is on an unstable sandpile, its only option seems to be to try to reinforce the foundations of that sandpile to avoid being hurt by its collapse.

15

Ultimate Paradox: Fragility Breeds Stability

A fundamental reform of the international monetary system has long been overdue. Its necessity and urgency are further highlighted today by the imminent threat to the once mighty U.S. dollar.

Robert Triffin, November 1960

The U.S. economy is now too big and too important to stumble without pulling the rest of the world down with it. If it were to experience a fiscal or financial meltdown, the reverberations would be damaging for every country in the world. Just the fear of this devastation points to how central the U.S. economy is to the global financial system. The dubious promise of safety from this very devastation is the irresistible lure of the dollar trap.

The situation is rife with paradox. Fixing the global monetary system now requires that the U.S. put its domestic economic policies in order. This will entail getting a grip on long-term public finances instead of just relying on easy money policies that raise the risks of future financial instability. Until that happens, the rest of the world will be stuck in the trap of continuing to support U.S. fiscal profligacy. Remarkably, the U.S. will return the favor by extracting a cost from the rest of the world rather than paying a price for such support.

The present state of the international monetary system implies that the dollar is still mighty. The perceived imminence of the threat to the dollar's primacy—referred to by Triffin more than five decades ago—remains true to this day, although the nature of the peril has changed over time. History suggests that these threats might appear logical and compelling but, ultimately, prove evanescent. Practically in every decade in the postwar era, there are events that seem to spell the imminent doom of the dollar, with pundits warning of an impending dollar crash. The dollar has persevered through all these phases with its supremacy as the world's preferred store of value perhaps dented but never seriously challenged.

Spreading the Pain When the Going Gets Tough

The prospect, however remote, of China or other wild cards tipping U.S. public finances into a crisis should give U.S. policymakers abundant grounds for concern. However, for all the financial and economic destruction such a crisis would wreak, the U.S. is in a less vulnerable position than any other economy in this position would be. The exorbitant privilege that it has enjoyed in its role as the principal global reserve currency so far gives the U.S. a unique cushion.

There is a rich irony in that a dollar crisis could in fact be good for the U.S. in some respects. It would finally force the U.S. to enact better domestic policies but would buffer the pain from any short-term dislocations caused by those policies. For one, a cheaper dollar would be good for the U.S., as it would make its exports more competitive. Second, the U.S. would make a handsome profit on its external balance sheet position. As discussed in Chapter 6, most of its liabilities are denominated in U.S. dollars, so nothing changes on that side of the U.S. external balance sheet if the dollar's value declines. In contrast, most of the foreign assets the U.S. holds are denominated in foreign currencies. So their value, measured in terms of U.S. dollars, would actually rise when the dollar's value falls, as every unit of foreign currency would be worth more in dollars.

Of course, the U.S. would share in the pain as well. It would face higher borrowing costs on its public debt, which would squeeze the government budget even more. The U.S. would also find that printing money to pay off the debt would not work well. It would simply feed into higher domestic inflation, if the rest of the world were not keen to hold more dollars.

Still, the pain inflicted on the rest of the world would be even greater. Other countries would be forced to make a major adjustment by ramping up domestic demand if U.S. economic growth were to slow and the dollar were to depreciate sharply. As the global financial crisis showed, no country would escape the negative consequences of a U.S. meltdown.

Why America Rules

Given its fragile and in some ways frightening debt situation, why is the U.S. still in the position of being the world's liquidity provider of last resort? What accounts for the childlike faith of investors worldwide that

the U.S. government will eventually settle its debt obligations in an orderly manner? The answer, in large part, rests on its robust and resilient institutions that, in some respects, might even prevail over sheer economic power.

Institutions Are Crucial

It has become an article of faith among academic economists that economic, legal, and political institutions, along with social norms, are important determinants of a country's long-term economic success. The seminal work of Nobel Laureate Douglass North of Washington University emphasized the growth-enhancing role of institutions that support private contracting arrangements but also limit the possibility of expropriation by the government or other politically powerful groups.

Daron Acemoglu, Simon Johnson, and James Robinson at MIT have built up a large body of empirical work strengthening the case for the primacy of institutions. In some of their work, they attempt to unbundle the roles of different types of institutions. They conclude that "property rights institutions," which protect ordinary citizens against expropriation by government or political elites, are essential for long-run economic growth, investment, and financial development. They find that "contracting institutions," which enable the enforcement of private contracts, have a greater influence on financial intermediation than on growth. Other researchers have found that participatory rights and democratic accountability are more important than property rights institutions for explaining cross-country outcomes of indicators of economic and social development.

These institutional factors are the core building blocks for the level of trust that the rest of the world has in the U.S. The trump card is an institutionalized system of checks and balances that operates among the executive, legislative, and judicial branches of its government. The emphasis on transparency of public institutions, the right to free expression, and an unfettered media are all necessary for building confidence. They accomplish this not by emphasizing strengths but by making weaknesses and faults in the system obvious, with the democratic process then providing a self-correcting mechanism.

The current dysfunctionality of the political system makes one wonder whether the above line of logic suggests a blind and misplaced faith in the United States. A reading of U.S. history indicates that the degree of political fragmentation is hardly a new phenomenon, and there have been many instances in this relatively young country's history when the degree of animus between the main political parties and the lack of bipartisanship have brought effective policymaking to a grinding halt. The country and its polity have survived these difficult times with relatively few scars to show for them, and smooth political transitions have remained the norm, even following pitched and divisive political battles.

The system of open and transparent democracy is crucial for explaining the confidence that foreign central banks and other investors have that the U.S. will not default on its debt, either directly or through indirect means, such as by allowing inflation to soar even temporarily. That about $4.5 trillion of Treasury debt is owned by U.S. investors, particularly by many groups—like retirees—who form potent voting blocks, is a comforting thought for foreign investors. Moreover, given how broadly the holdings of U.S. Treasury securities are dispersed, the notion of the U.S. targeting a specific country and reneging on its obligations to that country is unrealistic and unlikely to pass legal muster.

Indeed, the U.S. legal framework is another bedrock that is not only independent from the executive and legislative branches but is also seen as a fair and consistent interpreter of the rules. Although one may quarrel with the complexity of U.S. laws and regulations, their application and enforcement in a generally consistent and uniform manner is important for inspiring confidence among both domestic and foreign investors.

Many of the U.S. advantages reinforce one another. The strong regulatory and legal frameworks have led many foreign firms to seek listings on U.S. exchanges to "bond" themselves to the U.S. institutional framework. Foreign companies that register with the U.S. Securities and Exchange Commission subject themselves to stronger corporate governance standards and disclosure requirements. In return, they enjoy higher valuations, cheaper funding, and better long-run financial performance than similar companies that do not subject themselves to the discipline and scrutiny of U.S. markets and institutions.

Growth versus Institutions

Isn't economic performance an ace that should beat out any advantage conferred by superior institutions? The Chinese Communist Party has clearly done a skillful job of managing the economy, at least when considering GDP growth as the measure of success. China stands out as an anomaly in the context of the voluminous academic literature that well-developed legal and financial systems are important determinants of growth. The void in these dimensions in China has been filled to some extent by mechanisms based on reputation and relationships, as well as by informal financial intermediaries. These informal institutions have been able to support growth in ways that are still not clearly understood by researchers, but they offer little comfort to investors from other countries. Many of these investors may decide that the risks of expropriation or a weak legal framework to protect their rights are compensated for by the high growth potential of the Chinese economy. This assessment may explain the high levels of direct investment in China by foreign investors. However, it also suggests why foreign investors are unlikely to view the country as a predictable, low-risk destination for investment when safety matters more to them than yield.

Turning to the political framework, China's government remains opaque, and even the political decision making process at top levels is shrouded in secrecy. In the latest transition of power that took place during 2012–13, competing factions were battling fiercely for control of power, but all of this took place behind the scenes. It is certainly not the case that the Chinese Communist Party is a monolithic institution that speaks and acts fully in concert, brooking no internal dissent. Cheng Li of the Brookings Institution has characterized China as having two informal coalitions or factions that now check and balance each other's power in the Politburo, the country's highest political authority. However, these countervailing forces are no substitute for the sort of durable and institutionalized checks and balances that the U.S. system has.

In the summer of 2013, even as China's new leaders were escalating the battle against corruption and fostering expectations of significant economic reforms, they made it clear that major political and institutional reforms would not be tolerated. A document issued by the Party's Central Committee General Office, apparently with the approval of top leaders, surfaced in public in August. "Document No. 9" enumerated seven perils that the Party needed to guard against in order to maintain its authority. These included Western constitutional democracy; advocacy of Western concepts of freedom, democracy, and human rights; advocacy of freedom of the press; and advocacy of neoliberal free market concepts and the notion of civil society in which individual rights have supremacy. This was an unambiguous statement that economic reforms and liberalization would remain divorced from reforms in other spheres. Thus, even setting aside the issue of its low level of financial development, it is difficult to envision China as a safe haven, given the present form of its political and legal frameworks.

Flight to Liquidity Rather Than to Safety

In addition to the quality and resilience of its public institutions, another of the key characteristics that defines the U.S. is the depth of its financial markets. Thus, investments in U.S. government bonds are at least liquid and easily tradable. In some respects, the rush into U.S. Treasury bonds during times of global financial turmoil can be characterized more as a flight to liquidity and depth than as a flight to safety. Even if the prospect of an eventual dollar depreciation exposes foreign investors to a small loss in principal, they will still come flocking into U.S. Treasuries at stormy times in global financial markets. For they know that they can pull their money back by selling Treasuries without too much difficulty when the storms have passed and the skies have cleared.

Like many other asset markets, U.S. bond markets are perhaps being borne along by the "greater fool" theory. This concept, which became popular in the U.S. housing market boom in the 2000s, is that it makes sense to buy an asset even if it is regarded as overpriced, so long as one can be reasonably confident of finding another investor willing to pay an even higher price. The logic in many investors' minds may be that, given the enormous level of trading activity in the U.S. Treasury bond market, finding other fools may not be too difficult.

For all these reasons, at present the dollar remains the ultimate safe haven currency. But this is not necessarily a ringing testament to American exceptionalism. In global finance, everything is relative. What the continued dominance of the dollar shows is that the rest of the world simply cannot match the institutions and the financial markets that America has created. Despite their weaknesses, U.S. institutions and markets still remain the yardstick against which global investors measure other countries. Ronald McKinnon of Stanford University has nicely summed up the current state of affairs:

> while nobody loves the dollar standard, the revealed preference of both governments and private participants in the foreign exchange markets since 1945 is to continue to use it . . . it is a remarkable survivor that is too valuable to lose and too difficult to replace.

Whether this is an encouraging or depressing prospect depends on where one sits.

What Lies Ahead

Monetary exchange has freed humanity from inefficient barter arrangements. It has boosted domestic and international trade, and it has paved the way for economic progress around the world. Fiat money is here to stay and, for all its flaws, there is no obvious superior alternative.

Notwithstanding its benefits, fiat money has also become a source of instability within countries and in their interactions with the rest of the world. If the current structure of the global monetary system is adding to this instability, the question is why a system with such a central role for a small set of reserve currencies persists. With a broader distribution of global economic power and worldwide financial market development, an increasing number of currencies will over time come to be used in international trade and financial transactions.

However, the flow of money across national borders has itself become a source of macroeconomic and financial instability. In particular, emerging market economies are unable to fully protect themselves against calamity wrought by the volatility of these flows using fiscal, monetary, and financial sector policies that are under their control. Hence, these economies are left with little choice but to accumulate certain fiat monies as reserve assets to protect themselves.

The scheme for country insurance outlined in Chapter 11 would reduce the need for large stocks of reserve assets but still leave in place an important role for the major central banks that can create liquidity in adequate amounts when the world's financial system needs it. The inertia in global finance and the lack of effective global governance mechanisms militate against the rapid adoption of any such scheme. The structure of reserve currencies, with the dollar at its core, is therefore unlikely to be dislodged anytime soon.

Hard Economic Power Shifts, Soft Power Does Not

Emerging markets now have enormous clout in the global economy, accounting for a substantial share of global growth. But their financial markets remain relatively underdeveloped. Conversely, advanced economies have well-developed financial markets but are groaning under the burden of high and rising debt levels, along with rapidly aging populations that will only make these problems worse. Over the next decade, advanced economies will remain vulnerable to debt and financial crises that could limit their already weak growth prospects. Emerging market economies are more exposed to domestic institutional and policy fragilities that could slow their growth momentum but are unlikely to derail it.

The U.S. and other advanced economies still enjoy many advantages over emerging markets. The major advanced economies have greater institutional and political stability, together with deeper and better-developed financial markets. Even when subject to political gridlock, they usually have more orderly political transitions. The strength of their public institutions remains a critical anchor of political and economic stability. Their central banks still have independence and credibility, which is crucial for having the ability to undertake conventional and unconventional monetary policy actions without inflation expectations becoming unanchored. However, the ongoing political fragmentation in many of these countries and the deteriorating trust in their public institutions are taking a toll. Central banks are also coming under increasing pressure to expand their mandates and toe the line of politicians.

The U.S. is the prime example of a rich country with enormous institutional advantages that has exploited its exorbitant privilege to the hilt. Those advantages cannot be relied on to compensate for all its policy foibles in perpetuity. The level of political dysfunctionality in the U.S. and its implications for financial stability have also become painfully apparent to the world at large. Nevertheless, given their own political and institutional weaknesses, other countries have not been able to extricate themselves from the dollar trap, and many have in fact become even more enmeshed in it.

A trenchant summary of the present situation comes from a private sector analyst, Steven Englander of Citi, in a comment on the 2011 monetary conference in Nanjing that was discussed in Chapter 12. He observed that

all countries but one are trying to figure out how to get rid of the dollar as the world's major reserve currency, one country is trying to keep its currency as the world's major reserve currency but have it depreciate against all the others, and one country wants its currency to become a reserve currency but doesn't want anyone to buy it without permission. The intended outcome is reform of the international monetary system.

Fragility Breeds Stability

The world economy is in a fragile equilibrium. Although our imagination does not easily help us conceive of the scenario that could cause it to happen, it is possible that we are on a sandpile that is just a few grains away from collapse. The dollar trap might one day end in a dollar crash. For all its logical allure, however, this scenario is not easy to lay out in a convincing way.

This book has made the argument for a proposition to the contrary. The equilibrium in which the dollar remains the dominant global reserve currency is suboptimal but stable and self-reinforcing. This proposition seems to run counter to logic and is hard to fathom. At the same time, it is difficult to escape from this conclusion if one maps logic on to the existing state of the global monetary and financial systems.

The dollar trap has become a protective but prickly cocoon for a troubled world, which could do a lot worse than putting its money and trust in the U.S.