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# Introduction

Tensions over exchange rates have been a recurrent feature of the world economy for at least 80 years. They helped provoke the disastrous trade wars that intensified the Great Depression of the 1930s. They brought about the collapse of the Bretton Woods system of fixed rates in the early 1970s, ushering in an extended period of financial and economic instability.

The Plaza Accord in 1985 was required to correct the largest currency misalignments in modern history, which spawned intense protectionist pressures in the United States that threatened the global trading system. The capital flows associated with record trade imbalances, caused largely by a decade of currency manipulation after 2000, contributed significantly to housing bubbles in deficit economies, the bursting of which sparked both the Great Recession and the euro crisis. Currency manipulation greatly intensified the "China shock" that has eroded political support for globalization and new trade agreements in the United States and elsewhere, destroying the prospects for realization of the Trans-Pacific Partnership (TPP) and threatening to reverse some of the most important trade liberalization of the past.

Policy responses in each of these episodes have been too little and too late. The international rules and institutions, particularly the International Monetary Fund (IMF) and the World Trade Organization (WTO), have faltered badly. National policies, including in the United States, have not fared much better. Each episode has been exceedingly costly—for the world economy, for the United States, and for the credibility of the global monetary and trading systems.

Currency manipulation went largely into remission in 2014. However, it could resume at any time. Moreover, the political backlash against it and against globalization more broadly, has escalated to levels that are unprecedented in the postwar period. New policies, at both the national and international levels, are essential to deter and remedy future currency conflict.

## The Concept of Currency Conflict

Currency conflicts occur when countries seek an advantage in international trade by positioning their currencies at a level lower than justified by fundamental economic forces and market outcomes. They can do so by directly weakening their currencies through excessive (and thus competitive) devaluation of a fixed exchange rate or depreciation of a flexible exchange rate. More subtly, but now more frequently and with similar economic effects, they can block adequate (or any) upward revaluation of a fixed rate or resist market-driven appreciation of a flexible rate, a practice that has come to be called *competitive nonappreciation*. Such "competitive" outcomes are pursued primarily through direct intervention in the foreign exchange markets, which is often labeled "manipulation." It is sometimes argued that quantitative easing and other manifestations of unconventional monetary policy by the Federal Reserve and central banks of other advanced economies also represent "manipulation," but those policies are very different from direct intervention and should not be viewed as similar, as described below.

Currency manipulation improves a country's competitiveness by reducing the prices of its exports and raising the prices of its imports relative to the levels they would reach under market conditions, enabling it to expand exports and substitute domestic production for imports. An increased trade balance increases domestic output and jobs in tradable goods and services sectors. It will create jobs on balance if the economy is not already at full employment and therefore has unused resources that can be activated in those sectors and in others that serve their increased demand.

Countries also seek to run surpluses to build their national reserves (previously gold, now mainly foreign exchange) and to defend themselves against future external shocks. The old doctrine of mercantilism still has adherents, who believe that a nation's economic, political, and military power are enhanced by running large trade surpluses, particularly in manufactured goods and related services.

Exchange rates matter a great deal for countries' trade positions and thus their economies. The IMF (2015c) and Cline (2016) show that every 10 percent move in the trade-weighted average of the dollar prompts a shift of about $300 billion in the US trade balance in the opposite direction (i.e., dollar depreciation of 10 percent leads to a trade balance that is $300 billion stronger, and dollar appreciation of 10 percent produces a trade balance that is weaker by a similar amount). Such changes can move US GDP by as much as 1 to 2 percent, depending on the state of the economy and the macroeconomic policy response. As every $1 billion of trade links to roughly 6,000 jobs, the impact on the economy can be substantial.

From an international perspective, trade and current account *balances* are a zero-sum game—unlike trade and current account *flows*, which are generally a win-win proposition (in the aggregate). Surpluses and deficits across countries must balance out and add to zero (although statistical discrepancies sometimes produce a "global surplus" or "global deficit"). Hence a strengthening of one country's external balance must be mirrored by a weakening in the balance of one or more other countries. For this reason, when competition takes on extreme or unfair characteristics, "competitive devaluations" can produce serious international conflict and even be described as currency wars. The never-ending search for a level playing field among trading nations must therefore encompass currency issues.

There is nothing inherently good or bad about a trade or current account surplus or deficit of modest magnitude, or maintaining an exchange rate that will sustain one, as explained in chapter 2. However, large and persistent deficits can generate two types of unsustainability. First, they can become difficult to finance. Second, they can adversely affect important sectors of domestic production and employment, which in turn can undermine domestic support for open trade and economic policies. Large and persistent surpluses can generate inflationary pressures and, of particular importance, make it more difficult for deficit countries to correct their imbalances. Both types of imbalances distort the allocation of resources in ways that reduce efficiency and welfare over time in both surplus and deficit countries.

High-income countries have traditionally generated high rates of saving and thus tended to export corresponding amounts of capital and run external surpluses. Poor countries have offered good opportunities for investment. They therefore tend to import capital and run current account deficits to help fund their development. There are major exceptions to this pattern, however, notably contemporary China (which runs surpluses) and the United States (which runs deficits). Currency manipulation by China and other countries is an important reason why this anomaly has persisted, with wide-ranging economic and policy repercussions.

## Historical Background

Currency conflict plays a central role in the traditional narrative of the 1930s and its lessons for future generations (Eichengreen 1992, Irwin 2011). All the major countries of the period—especially the United Kingdom, the United

States, and France—devalued sequentially and substantially in an effort to extricate themselves from the deep recessions of the day. The devaluations against gold ultimately raised prices worldwide and helped lift the world economy, and the abandonment of overvalued pegs freed monetary policy to stimulate economic expansions. In the early stages, however, countries that remained on fixed gold parities suffered from the devaluations of their neighbors. In response, some raised tariffs, which, along with the recessions, cut world trade by a quarter in three years, offsetting much of the benefit of easier monetary policy and prolonging the Great Depression.

The disastrous impact of competitive devaluation and beggar-thy-neighbor policy was a—probably the—central lesson policymakers gleaned from the interwar years. Prevention of a repetition was thus the cardinal goal of the international economic order that was constructed at Bretton Woods for the postwar period. The Articles of Agreement of the IMF explicitly ban competitive devaluation and currency manipulation. The charter of the General Agreement on Tariffs and Trade (GATT), now the WTO, contains a similar proscription of "exchange practices that frustrate the intent" of the agreement. A central purpose of the entire postwar structure was to avoid renewed resort to currency conflict.

Periodic currency conflict nevertheless recurred throughout the postwar years. As the United States began running overall balance-of-payments deficits in the 1960s, requiring sales of US reserves (mainly gold) despite steady current account surpluses, and the United Kingdom ran chronic deficits, countries with growing surpluses—mainly Germany, some other European countries, and increasingly Japan—resisted revaluing their exchange rates as the adjustment process required, becoming early practitioners of competitive nonappreciation. Largely as a result, the United States concluded that it had to abrogate some of the fundamental rules of the system, by terminating the convertibility of dollars into gold for foreign monetary authorities and imposing an across-the-board import surcharge, to enable it to restore equilibrium by negotiating a devaluation of the dollar. Its actions in essence destroyed the original Bretton Woods system of "fixed" exchange rates.

The major players grudgingly agreed to the initial realignment of parities in 1971, although most of them, especially France and Japan, pushed back hard against the US initiative by intervening to keep their own rates from rising further (Volcker and Gyohten 1993)—what is now called manipulation. The second realignment in 1973, and the shift by most major countries to flexible exchange rates, followed the same pattern. There was much grumbling about a "third devaluation of the dollar" after fixed parities were finally abandoned.

The widespread adoption of floating exchange rates by the major industrial countries in the 1970s was partly intended, and presumed by many, to preclude future competitive currency behavior by governments by turning the determination of exchange rates over to markets. But markets make major mistakes, too, as they did when they pushed the dollar to absurdly overvalued levels in the middle 1980s, inviting governments to resume their intervention. Moreover, in practice no government was willing to permanently absent itself from influencing a price that was so important for its economy. The United States, one of the most vocal proponents of "letting the market decide," intervened heavily to shore up a plummeting dollar in 1978–79, to drive down a hugely overvalued dollar in 1985, and to stabilize the dollar when it dropped too rapidly in 1987. In the late 1970s, the Europeans, unhappy over the frequent downward swings of the dollar and related rises in their own currencies, began the movement toward a common internal currency that eventually produced the euro two decades later.

Three chronic problems soon reemerged, keeping alive both the risk and periodically the reality of currency conflict. One was the revealed reluctance of deficit countries to reduce their imbalances by depressing their domestic economies. This tendency was particularly strong in the United States, a large and relatively closed economy in which, because of occasional overheating and the generation of fiscal deficits, such correction would sometimes have been desirable on domestic as well as international grounds. The result was that the United States relied on currency depreciation to achieve adjustment when it became necessary, either because foreign financing threatened to dry up or, more frequently, in response to domestic political reactions. The ensuing outbreaks of protectionism placed its liberal trade policy and thus the global trading system at risk.

The second problem was the revealed reluctance of surplus countries to undertake any substantial initiatives, including currency appreciation, to correct their imbalances. Deficits, of course, cannot be corrected without parallel reductions of the corresponding surpluses, so surpluses cannot escape the adjustment process. But the locus of the adjustment measures makes a big difference in both economic and political terms. The persistent competitive nonappreciation by surplus countries forced most or all of the adjustment initiative on deficit countries, which often had to restrain their growth (despite their own preferences) and impart a deflationary bias to the world economy.

The United States was able to resist this pressure more easily than other deficit countries because the dominant international role of the dollar channeled capital to the United States and helped finance its deficits. The domestic protectionist pressures triggered by the industrial decline associated with those deficits, however, could demonstrably become an even greater effective constraint. When it did, the desire of the United States to adjust by weakening the dollar clashed directly with the desire of the surplus countries to avoid strengthening their currencies.

This fundamental asymmetry of the adjustment process became the most glaring shortcoming of the global monetary system. It magnified the importance of the third chronic problem facing the system: the inability of the IMF to promote timely and sustainable correction of international imbalances. The IMF was not very effective during the postwar period of “fixed” exchange rates (really, adjustable pegs) either, but it did then have a clearly defined and authorized role. Once floating began, despite the adoption of amendments to its Articles of Agreement and some elaboration of its operating procedures, the Fund became largely a bystander in managing the nonsystem, as it came widely to be called.

Any cooperation that occurred was worked out mainly informally by the G-5 (for the Plaza and Louvre Accords in the 1980s) and by the G-7 (for the Asian and related crises in the 1990s). These groups have been vigilant, and largely successful, in trying to prevent competitive depreciations.

The largest currency misalignment of this period was by far the massive dollar overvaluation of the 1980s, which was driven by market forces (including rampant speculation) rather than manipulation by officials in surplus countries. It was resolved through cooperative intervention without any charges of currency warfare when the major countries realized that the most likely alternative was an outbreak of trade protection in the United States that would threaten the entire global trade regime (Bergsten and Green 2016).

The “Gs” were less effective in fending off competitive nonappreciations, especially with respect to one of the two chronic surplus countries of the period: Japan. Although its exchange rate did fluctuate widely, and it played by far the largest role in carrying out the Plaza Accord, Japan intervened periodically in the currency markets to keep the yen undervalued, cumulating more than $300 billion in foreign exchange by 2000 as a result of this activity. The other main surplus country, Germany, did not pile up nearly as high a level of reserves and even ran deficits for a while. But it achieved the equivalent of competitive nonappreciation by subsuming its exchange rate in the euro area and enjoying the weakness of that currency (relative to an independent Deutsche mark) caused by the poor economic performance of other members of the currency union.

While all this was going on at the international level, most members of the European Union—the world’s largest economic area—were moving toward creating a currency union. Their chief goal was to avoid changes in exchange rates that would disrupt the level playing field they were developing internally with free trade and eventually the single market—that is, to prevent currency conflict within the union. The idea was almost as old as the original Common Market itself, with the concept for monetary integration dating back to the Werner Plan in 1970. The move intensified after the abandonment of the pegged exchange rates of Bretton Woods in the 1970s and especially the repeated depreciations of the dollar, which created fluctuations among European currencies and generated upward pressure on all of them. The initial European Monetary System, a regime of small and frequent changes in parities, commenced in 1979.

Germany, as the traditional surplus country and paymaster of Europe, played the central role in these developments. It was probably modestly overvalued within the euro at its outset and, partly as a result, paradoxically became the sick man of Europe in the early 2000s. It adopted a strategy of wage suppression and labor market reforms that produced a sizable "internal devaluation" thereafter and, by sharply undermining the competitiveness of its EU partners, sowed the seeds for the later euro crises. At the same time, the weakness of the common currency in global markets—as a result of the weakness of many member countries—enabled Germany to achieve and maintain the world's largest current account surplus without experiencing the subsequent currency appreciation that in pre-euro days had always forced it to accept at least some adjustment (Bergsten 2016). As a member of the euro area, Germany was thus able to benefit from depreciation, or at least nonappreciation, that stemmed from its membership in a currency union that added a subtle but very important new dimension to the problem of currency conflict.

## Recent Developments: Renewal of Currency Conflict

Over the past two decades, four major developments have restored the centrality of the currency conflict issue.

### Asian Financial Crisis of 1997–98

The Asian financial crisis led virtually every Asian country and some countries in other parts of the world, whether or not they were victims of that crisis, to resolve to build their foreign exchange reserves to far higher levels to shield themselves from any repetition of such an event. They sought to buttress their defenses against future market pressures, which could demonstrably derail even such major economies as Korea and Indonesia, and to their again becoming beholden to the strictures of the IMF, which they detested.

The result was that virtually all Asian countries sought to run very large current account surpluses for a decade or more. They succeeded spectacularly: China's reserves (including its sovereign wealth fund) eventually peaked at more than $4 trillion, and a number of much smaller economies, including Hong Kong, Singapore, Korea, and Taiwan, amassed war chests of several hundred billion dollars each. These surpluses were triggered in large part through currency nonappreciation, engineered largely through manipulation, as demonstrated in chapter 4. International imbalances escalated sharply as a result, with the US current account deficit rising to a record $800 billion (6 percent of GDP) in 2006.

The pursuit of adequate precautionary balances is understandable in a world of high capital mobility and volatile markets. The reserve buildups and consequent current account surpluses during this period climbed much too far, however, producing reserves that were greater than needed to meet even the most extreme possible circumstances. They created global imbalances that contributed to the onset of the financial crisis and Great Recession in 2007–08 and undermined support for open trade and globalization more generally. Currency conflicts had again become a major phenomenon.

## Chinese Currency Intervention

The second important development, which overlapped but went far beyond the first, was the enormous and highly contentious intervention by China to keep its currency from rising at all before 2005 and during 2008–10 and by much less than it should have when the authorities were allowing it to appreciate gradually. By the beginning of the new century, China had adopted a development model that relied heavily on integration with the world economy and rapid export growth. This strategy included extremely healthy aspects, such as China's aggressive use of the rules of the WTO to promote controversial reforms at home. But it also produced steady and substantial rises in China's external surplus, which reached an astonishing peak of almost 10 percent of its GDP in 2007.

China's export surge generated enormous pressure on the economies of the United States and other deficit countries, especially on their low-skilled workers and their communities (Autor, Dorn, and Hanson 2016). These pressures from the "China shock" became a major factor in the narrative that undermined support for globalization (especially trade agreements) in the United States and some other countries and may have had a decisive impact on the 2016 US presidential election (Autor et al. 2017).[1]

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1. Support for leaving the European Union was much stronger in localities in the United Kingdom where industries faced greater competition from Chinese imports (I. Colantone and P. Stanig, "Brexit: Data Shows that Globalization Malaise, and Not Immigration,

The huge buildup of Chinese foreign exchange reserves that resulted from its currency manipulation also produced large flows of capital into the United States that contributed to the easy financial conditions there in the mid-2000s that facilitated the housing bubble and ultimately brought on the financial crisis and Great Recession, as discussed in chapter 4.

China achieved its entire external surplus throughout the "decade of manipulation" through its massive and sustained intervention in the currency markets. It pegged the renminbi to the dollar in 1994 and rode the dollar's appreciation upward until 2002, including by maintaining its peg unchanged through the Asian crisis, then rode the depreciating dollar down substantially against all currencies when its superior productivity growth suggested that the renminbi should have instead been appreciating by several percentage points per year (what Bhalla 2012 calls "standing-still depreciation"). Its intervention averaged more than $1 billion per day for several years—almost $2 billion per business day at its peak—keeping the renminbi from rising against the dollar and other currencies despite the soaring current account surplus and sizable inflow of direct investment capital. The United States (especially Congress) and some others complained loudly and increasingly frequently, as described in chapter 5. China let the renminbi rise gradually from 2005 until the outbreak of the Great Recession in 2008 and again from 2010, but its dramatic surpluses and reserve accumulation, driven by its currency manipulation and the inability of the IMF and the United States to do much about it, brought the issue of currency conflict back onto the front burner.

China was by far the most important currency manipulator, but it was hardly the only one. Half a dozen other Asian economies conducted similar policies, significantly contributing to the impact of the group as a whole on global imbalances. A number of oil exporters and a few other countries—notably Switzerland, which became the largest manipulator in 2012—were active as well. Manipulation became a wide-ranging systemic problem of consequential magnitude that revealed the failure of the international rules and institutions to offer an effective response.

China eventually let the renminbi rise substantially, by more than 50 percent on a real trade-weighted basis and about 35 percent against the dollar, to its recent peak in 2015. Largely as a result, its current account surplus dropped to less than 3 percent of GDP in 2015–16. Market pressures on the renminbi reversed course in 2015–16, and China intervened heavily to limit its depreciation, selling more than $500 billion of its reserves, thus helping rather than hurting the competitiveness of the United

Determined the Vote," *Bocconi Knowledge*, July 12, 2016, www.knowledge.unibocconi.eu/notizia.php?idArt=17195).

States and other deficit countries. But its manipulation throughout the previous decade severely distorted world trade, transferred large amounts of production and employment away from deficit countries, left lasting effects on national competitive positions, and triggered strong antiglobalization politics in some of the advanced economies that continue long after the manipulation itself ceased. The episodes revealed once again the weaknesses of the international monetary system and the instabilities that result.

The surpluses of the oil exporters have dropped as well, as a result of the sharp fall in the price of oil. But surpluses of many other manipulators have remained large or risen further, despite a sharp drop in currency intervention. Private financial flows have boosted the exchange rate of the dollar and allowed former manipulators to maintain their surpluses without intervening. The problem of manipulation has thus become less compelling for the moment—though the problem of imbalances is likely to grow and the domestic backlash in the United States against past manipulation, if anything, has intensified.

## Unconventional Monetary Policies

A third, and potentially powerful, source of currency conflict was initiated with the adoption by the United States and United Kingdom, and subsequently by the euro area and Japan, of unconventional monetary policies, especially quantitative easing, in response to the Great Recession. It was, in fact, the upward pressure on Brazil's currency, driven primarily by quantitative easing in the United States, that led its finance minister, Guido Mantega, to inject the term *currency wars* into the contemporary lexicon in 2010 (see Prasad 2014 for a useful review of the history surrounding these events). Some observers have viewed these developments as presaging a new phenomenon of "monetary policy wars" (Taylor 2016).

A number of European political as well as financial leaders expressed considerable unhappiness when the Federal Reserve launched its extensive quantitative easing program, which pushed the dollar down in 2008–09, despite the likely benefits to their own economies from faster US economic growth. Japan engineered a sharp depreciation of the yen with the aggressive quantitative easing mandated by the new Abe government in early 2013. The depreciation was exacerbated by the "oral intervention" with which it anticipated that policy shift around the time of the election in late 2012 (which led the G-7 at its meeting in February 2013 to welcome the quantitative easing but criticize the oral intervention and insist that Japan recommit to avoiding manipulation and competitive depreciation).

The central banks have not exacerbated the currency conflict in any substantial way. Their governments continue to respect their independence, but their ventures into the largely uncharted waters of unconventional monetary policies raise the prospect of another possible source of currency conflict. China, with support from Brazil and other emerging-market economies, has threatened to insist on including unconventional monetary policies in any new international process to assess the effects of, and consider sanctions against, currency manipulation. Though the threat is based on faulty analysis, as described in chapter 2, and thus unlikely to lead to restrictions on unconventional monetary policies, US officials cited the fear of future constraints on Federal Reserve policy in justifying their unwillingness to push for new international currency disciplines in, for example, the negotiations over the TPP (some members of Congress also cited these concerns in resisting the efforts of their colleagues to require the administration to seek such disciplines).

### Frustration with US Failure to Curtail Currency Manipulation

The fourth key element in renewing the currency debate—and the main driver for new policy action as this book was being completed in early 2017—was the sharp increase in dissatisfaction in the US Congress and the US body politic with the unwillingness of the administrations of George W. Bush and Barack Obama to adopt more effective responses to manipulation, mainly by China and to a lesser extent by Japan and Korea. Dollar overvaluation and the resulting trade deficits have always been major drivers of protectionism in the United States; the risk that such sentiments would prevail motivated the aggressive strategies to weaken the exchange rate in 1971 and especially 1985. In the current period, when the main thrust has been to oppose new trade agreements and perhaps also to roll back previous liberalization, members of both houses and both parties promoted legislation to deal with currency manipulation throughout and indeed well beyond the "decade of manipulation."

These initiatives reached partial fruition in 2015 and 2016, when Congress adopted two important pieces of legislation that President Obama signed. The first, the Trade Promotion Authority bill, instructed US negotiators of the TPP and future free trade agreements (FTAs) to seek to ensure that partner countries avoid currency manipulation. In response, the Obama administration, for the first time with respect to any trade agreement, negotiated a side agreement to the TPP on the currency issue. That agreement recommitted all TPP members to avoid manipulation and added new disclosure requirements on intervention and related policies for some of them.

The second new law, the Trade Facilitation and Trade Enforcement Act of 2015, established new requirements for the implementation of US currency policy by future administrations based on clear criteria defining "manipulation" and timelines for responding to it (as described in chapters 4 and 5). The Treasury Department subsequently published its interpretation of the new criteria as a guide to its future policies.

Congress has proposed tougher measures, such as the import surcharge that was prominent in the initial debate on currency manipulation in 2005–07 but dropped thereafter because of its clear violation of US obligations under the WTO. All of the various proposals could be characterized as defensive reactions by the world's largest deficit country to manipulation by China and others. However, the rest of the world could well have viewed adoption of any forceful step by the United States as an escalation of, rather than a legitimate response to, currency conflict, because the US economy was doing relatively well and the dollar remains the world's key currency. Containment of congressional pressure for such steps by the Obama administration prevented a possible ratcheting up of that conflict.

These pressures broadened considerably with the political campaigns of 2016. For the first time in recent US history, trade became a central element in the presidential battle and some congressional contests. Both major presidential candidates, and several of the contenders for each party's nomination, explicitly opposed the TPP (Donald Trump also called for renegotiation of the North American Free Trade Agreement [NAFTA] and the United States-Korea Free Trade Agreement [KORUS]). So did key senatorial candidates, such as Republican Rob Portman of Ohio, a former US Trade Representative who supported the Trade Promotion Authority bill in 2015 but felt compelled to oppose the TPP in 2016 in order to hold his seat. All of these candidates cited the currency issue as an important reason for their skepticism and pledged to address it if elected, with Trump indicating repeatedly that he would "name China as a manipulator on his first day in office" (despite the total reversal in China's intervention policy, as described above, which presumably persuaded him not to fulfill that pledge).

The issue thus became much more politicized in the United States than ever before. Despite the recent remission in manipulation, it will play a major role when the administration and Congress address trade and globalization policy more broadly. President Trump has expressed far greater concern over manipulation than any of his predecessors, publicly indicating an intention to address the issue forcefully. Of all the issues critics of FTAs have cited, none has been mentioned more often than currency manipulation.

Any effort to revisit the TPP, or pursue new bilateral agreements with countries such as Japan or the United Kingdom (post-Brexit), could well seek to include "enforceable currency disciplines." During the campaign, both presidential candidates expressed their dissatisfaction with the absence of such disciplines. Many members of Congress have done so as well and could condition their support for any future agreements on their inclusion. The administration and Congress might also adopt new unilateral US policies, such as countervailing duties and countervailing currency intervention, through which the United States would buy offsetting amounts of the currencies of manipulators to neutralize their impact on exchange rates, described in chapters 5 and 6, to deter and deal more forcefully with currency manipulation. Depending on the nature of those measures and how they are implemented, such action could mark either a sharp escalation of the international currency conflict or a constructive new approach to reduce such conflict in the future.

This book focuses mainly on "currency conflict" and the economic distortions and policy problems that can result from government intervention in currency markets. It also pays some attention to the even broader misalignments of exchange rates and international imbalances, often driven by market forces such as changes in interest rates and underlying economic fundamentals, about which both authors have written extensively (see, for example, Bergsten 1996 and Gagnon 2011). After the "decade of manipulation," during which official intervention played a major role in many of the currency markets, such market-driven movements returned to primacy in 2015–16. Governmental intervention declined sharply, reflecting at least a temporary remission in manipulation and a return of currency misalignments and trade imbalances stemming from the more traditional movers of markets.

Since 2011, and especially in late 2014 and early 2015, the exchange rate of the dollar rose substantially for market-related reasons. Though not booming, the United States has been growing considerably more rapidly than Europe and Japan, the issuers of the other key currencies. The Federal Reserve stopped easing US monetary policy—and indeed began to tighten modestly—in late 2015 and again in late 2016, while the European Central Bank and the Bank of Japan were continuing to expand their quantitative easing programs. China's slowdown and renewed capital flight pushed the dollar up against the renminbi. Safe-haven money periodically flowed into the dollar, still the world's dominant currency, around events such as the Chinese mini-devaluation in August 2015 and the Brexit vote in June 2016.

As a result of this market-driven appreciation, as of early 2017 the dollar was overvalued by 10 percent (Cline 2016) to 20 percent (Bergsten 2016), depending upon whether one wants simply to restrain the US current account balance deficit within 3 percent of GDP or to eliminate it entirely. The overvaluation may push the deficit back toward 5 percent of GDP over the next few years, moving it toward $1 trillion. These growing misalignments and imbalances have been subtracting about 0.4 percent per year from real US growth, beginning in 2015 and running at least through 2017 (Stockton 2016).

These developments will increase concern, in Congress and elsewhere, about the impact of exchange rates and the trade imbalance on the economy, including via any new trade agreements that might be considered. It was just such market developments in the first half of the 1980s, and the demonstrable risks of congressional reaction via restrictive trade policies, that drove the Reagan administration to abandon its "benign neglect" of the dollar and initiate the Plaza Accord, which pushed the trade-weighted dollar down by 30 percent over the following 18 months. Donald Trump expressed considerable concern about the trade deficit throughout his campaign. Especially as his projected fiscal (and possibly tax and trade) policy could lead to further dollar appreciation, he may need to address the exchange rate himself.

It is remarkable that Congress paid scant attention to the dollar's rise during its debate on TPA in early 2015, just when the sharpest rise was taking place, a response that lies in stark contrast to its very intense focus on the issue in 1984–85. Congress instead focused exclusively on manipulation as an unfair trade practice. It is, of course, possible that the two issues will become conflated in the future, intensifying the likelihood that the United States will adopt new policies in response. With or without this "new" element, it is clear that US domestic politics have embraced the issue of unfair trading practices in general, and currency manipulation in particular, as never before and will push hard for more forceful national policies to address it.

## Plan of the Book

This book analyzes the components of currency conflict. It places them in the context of both the global economy and the domestic scene in the United States and proposes new policy measures—at both the national and international levels—that would supplement the international monetary system created at Bretton Woods by effectively deterring and, when necessary, countering manipulation. The plan of the book is as follows.

Chapter 2 provides the basic economics of the issue. It defines trade and current account positions, identifies their immediate and underlying determinants, and traces their interactions with exchange rates. It links macroeconomic policies, especially monetary policies and official financial flows (notably currency intervention), to exchange rates and current accounts and demonstrates that reserve buildups in a number of countries, obtained through currency manipulation, have been key drivers of current account surpluses.

Chapter 3 addresses important normative questions, including current account targets for individual countries and their international compatibility. It documents a fundamental asymmetry of international financial markets, which limit the ability of countries to run up large negative net international investment positions but place no comparable restrictions on large positive net positions. The chapter relates these considerations to currency policies, suggesting where intervention is internationally justified and where it is not.

Chapter 4 describes the "decade of manipulation" (2003–13). It identifies the countries that intervened excessively (i.e., manipulated) and quantifies the size and economic impact of intervention on both the manipulators and, especially, the United States and their main trading partners. It derives new norms that might be adopted in fashioning future rules or understandings governing buildups of foreign exchange reserves and intervention policy, along with alternative policies that would permit past manipulators (especially China and Japan) to achieve their legitimate national goals without creating problems for other countries and the global monetary system.

Manipulation has been largely in remission since 2014. (The primary exceptions are certain financial centers, such as Switzerland and Singapore, for which we propose alternative policies going forward.) But other developments of acute relevance, including the congressional and broader US political debate over currency policy, are clearly not in remission. Chapter 4 examines the recent increases in market-driven exchange rates and current account imbalances, which are not caused by manipulation but raise related questions that may become relevant for currency policy.

Chapter 5 lays out the policy options for addressing the several aspects of the currency problem. It distinguishes between macroeconomic/monetary and trade policy possibilities and contrasts multilateral, plurilateral, and unilateral approaches. It provides detailed analyses of a wide range of specific measures, ranging from the "private diplomacy" of recent US policy through efforts to mobilize international rules and institutions (the IMF and WTO) and perhaps negotiate the inclusion of "enforceable currency disciplines" in trade agreements. It considers the use of fiscal and monetary policy, countervailing currency intervention, reforms of the international monetary system to encourage stabilizing intervention in the foreign exchange markets, the deployment of new capital controls to deter investments in the dollar that push its exchange rate up, and specific trade policy measures, such as countervailing duties and import surcharges.

Chapter 6 summarizes the analytical findings and offers policy recommendations. It concludes that manipulation is the main element of the currency conflict issue that needs policy attention, both to protect affected countries and to fill the most important gap in the international monetary and trading systems. The absence of effective policies to address manipulation raises the prospect that the resulting large external deficits in the United States and perhaps other countries, and the application of such illegitimate and unfair policies by major trading countries, may become unsustainable for domestic political reasons and lead to renewed outbreaks of widespread protectionism (or at least an unwillingness to adopt new trade agreements or expand globalization).

The most promising policy alternative is an announcement by the United States, ideally supported by others, that it will henceforth apply countervailing currency intervention against any G-20 countries that meet a clear set of objective criteria (excess reserves, excessive current account surpluses, excessive intervention in the currency markets) to determine "manipulation." This policy could be carried out under current legislation, although it would be desirable for Congress to authorize it explicitly, as the Senate did in a currency bill it passed in 2011, and provide adequate resources (carrying no budgetary costs) in order to make it fully credible. This proposal focuses on the world's most important economies. It builds on a commitment to which they have already agreed in numerous G-20 statements. As of early 2017, no G-20 country met these criteria, so there would be no immediate "indictments" under the new policy. If backed by sufficient resources to be fully credible, countervailing currency intervention should deter and indeed end the practice of currency manipulation (and thus never have to be used), indefinitely extending the current remission of that practice.

To help multilateralize the new policy, IMF policies should encourage intervention by surplus countries to strengthen their currencies. Taking major manipulators to the WTO and including currency disciplines in future US trade agreements could supplement countervailing currency intervention. Monetary policy, fiscal policy, and more sweeping trade policies, such as import surcharges, should not be deployed for these purposes. Indeed, doing so could intensify rather than curtail the currency conflict. It is highly likely, however, that unilateral steps by the United States will be necessary to start correcting this major gap in global monetary arrangements and in the economic policy arsenal of the United States itself. The United States should begin taking them as soon as possible.