

## Currency Manipulation, the US Economy, and the Global Economic Order

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### EXECUTIVE SUMMARY

More than 20 countries have increased their aggregate foreign exchange reserves and other official foreign assets by an annual average of nearly \$1 trillion in recent years. This buildup of official assets—mainly through intervention in the foreign exchange markets—keeps the currencies of the interveners substantially undervalued, thus boosting their international competitiveness and trade surpluses. The corresponding trade deficits are spread around the world, but the largest share of the loss centers on the United States, whose trade deficit has increased by \$200 billion to \$500 billion per year as a result. The United States has lost 1 million to 5 million jobs due to this foreign currency manipulation.

The United States must tighten fiscal policy over the coming decade to bring its national debt under control. Monetary policy has already exhausted most of its expan-

sionary potential. Hence the United States must eliminate or at least sharply reduce its large trade deficit to accelerate growth and restore full employment. The way to do so, at no cost to the US budget, is to insist that other countries stop manipulating their currencies and permit the dollar to regain a competitive level. This can be done through steps fully consistent with the international obligations of the United States that are indeed based on existing International Monetary Fund (IMF) guidelines.

Such a strategy should in fact attract considerable support from other countries that are adversely affected by the manipulation, including Australia, Canada, the euro area, Brazil, India, Mexico, and a number of other developing economies. The strategy would aim to fill a major gap in the existing international financial architecture: its inability to engage surplus countries, even when they blatantly violate the legal strictures against competitive currency undervaluation, in an equitable sharing of global rebalancing requirements.

The United States and its allies should first seek voluntary agreement from the manipulators to sharply reduce or eliminate their intervention. The United States should inform the manipulators that if they do not do so, the United States will adopt four new policy measures against their currency activities. First, it will undertake countervailing currency intervention (CCI) against countries with convertible currencies by buying amounts of their currencies equal to the amounts of dollars they are buying themselves, to neutralize the impact on exchange rates. Second, it will tax the earnings on, or restrict further purchases of, dollar assets acquired by intervening countries with inconvertible currencies (where CCI could therefore not be fully effective) to penalize them for building up these positions. Third, it will hereafter treat manipulated exchange rates as export subsidies for purposes of levying countervailing import duties. Fourth, hopefully with a number of other adversely affected countries, it will bring a case against the manipulators in the World Trade Organization (WTO) that would authorize more wide-ranging trade retaliation.

In the first instance, this approach should be taken against eight of the most significant currency manipulators: China, Denmark, Hong Kong, Korea, Malaysia, Singapore,

Switzerland, and Taiwan. We believe that cessation of intervention by these countries will permit most of the other interveners to desist as well, without their being directly approached, because much of their intervention is aimed at avoiding competitive loss to the largest manipulators (especially China). One other country, Japan, has been an occa-

**The largest loser is the United States, whose trade and current account deficits have been \$200 billion to \$500 billion per year larger as a result. The United States has thus suffered 1 million to 5 million job losses.**

sional manipulator in the past but has not intervened recently so should be placed on a watch list. So should a number of oil exporters as further study proceeds on what constitutes appropriate levels of reserve assets for these countries. An important component of this strategy is to develop new sources of sustainable domestic-demand-led growth in surplus countries as endorsed by the leaders of the Group of Twenty (G-20).

## THE PROBLEM

More than 20 countries (listed in table 1) have been intervening at an average rate of nearly \$1 trillion annually in the foreign exchange markets for several years to keep their currencies undervalued and thus boost their international competitiveness and trade surpluses. See figure 1.<sup>1</sup> China is by far the largest, in terms of both economic importance and amounts of intervention. Several other Asian countries, a number of oil exporters, and a few countries neighboring the euro area have also intervened significantly, however, so the problem ranges far beyond China. In addition, dozens of other countries have been intervening on a smaller scale mainly as a defensive reaction to maintain competitiveness with these currency manipulators.

As discussed below, we estimate that the amount of intervention in 2011 that exceeded a justifiable level was nearly \$1 trillion. We calculate that this intervention, and the undervaluation of currencies that results, increase the trade surpluses of the intervening countries by between \$400 billion and \$800 billion per year. Many countries, including most of Europe and a number of developing countries, suffer the counterpart deterioration in their trade balances and loss of jobs. The largest

loser is the United States, whose trade and current account deficits have been \$200 billion to \$500 billion per year larger as a result. The United States has thus suffered 1 million to 5 million job losses.<sup>2</sup> Half or more of excess US unemployment—the extent to which current joblessness exceeds the full employment level—is attributable to currency manipulation by foreign governments.

Trade balance improvement is essential if the United States is to reduce its high unemployment and underutilized capacity at a satisfactory rate, under current and prospective macroeconomic policies at home and abroad. Fiscal consolidation will be essential for as long as a decade and hence will drag on the economy for many years. Monetary ease is thus equally essential, but interest rates are already near zero and most potential avenues of quantitative easing are already being pursued. Hence trade is one of the few remaining avenues.

The United States has run large trade and current account deficits for about 30 years (see figure 2). The current account deficit has averaged 2¾ percent of GDP since 1980 and peaked at 6 percent in 2006. It is currently running at an annual rate of just under \$500 billion, about 3 percent of GDP, and is expected to grow moderately over the next few years to around \$700 billion, or 3½ percent of GDP, by 2017 (IMF 2012d).

These deficits subtract from US economic activity, with a corresponding portion of domestic demand met from foreign sources. During most of the past 30 years, US macroeconomic policies—primarily monetary policy—have been able to keep the United States at full employment despite continuing trade deficits. At times, the trade deficit may even have helped to contain inflationary pressures and thus represented a useful “safety valve” in support of stable prosperity. For example, in the 1980s, the trade deficit helped to keep the US economy from overheating during a period of large fiscal deficits. And, of course, artificially cheap imports engendered by currency manipulation are a benefit to US consumers.

At other times, however, the trade deficits have distorted economic activity and damaged the US economy even when there was no excess unemployment. For example, in the 2000s when the deficits reached record levels, the Federal Reserve

1. We define intervention broadly to include all net purchases of foreign assets by the public sector, including in sovereign wealth funds.

2. There are two sources for these employment effects. First is a simulation of the Federal Reserve’s model of the US economy, described further below, which implies 2 million to 5 million job losses. Second is the Commerce Department’s finding that each \$1 billion in exports creates 5,000 jobs. Under that assumption, a reduction in the US trade deficit of \$200 billion would create 1 million jobs, and a reduction in the trade deficit of \$500 billion would create 2.5 million jobs. The Commerce Department’s estimate of jobs created is based on the pattern of US exports in 2011. Value added per worker is higher in export industries than in the overall economy. However, the Commerce Department number does not take into consideration jobs created in industries that compete with imports nor does it predict the job content of new exports that might occur if currency manipulation were to cease.

**Table 1 Foreign exchange reserves and external balances of currency manipulators**

Country	Foreign exchange reserves, year-end 2011		2012 reserves increase to date (annualized billions of dollars)	Current account balance in 2012 (IMF forecast)		Bilateral trade balance with United States in 2011 (billions of dollars)
	Billions of US dollars	Percent of GDP		Billions of US dollars	Percent of GDP	
<b>Asia</b>						
China <sup>2</sup>	3,262	45	139 (September)	191	2	280
Hong Kong	286	118	20 (October)	10	4	-31
Japan	1,225	21	-29 (October)	95	2	44
Korea <sup>2</sup>	335	30	30 (November)	22	2	5
Malaysia	129	46	5 (October)	23	8	10
Singapore <sup>3</sup>	486	187	n.a.	56	21	-18
Taiwan	386	83	16 (October)	32	7	12
Thailand	166	48	6 (November)	-1	-0	14
<b>Oil exporters</b>						
Algeria <sup>1</sup>	181	95	8 (June)	13	6	13
Angola <sup>1</sup>	28	28	8 (October)	10	9	12
Azerbaijan <sup>1,2</sup>	33	53	n.a.	15	20	2
Kazakhstan <sup>1,2</sup>	64	36	n.a.	12	6	1
Kuwait <sup>1,2</sup>	235	133	n.a.	77	44	5
Libya <sup>1</sup>	97	264	11 (June)	19	22	0
Norway <sup>2</sup>	547	113	144 (September)	76	15	3
Qatar <sup>1,2</sup>	101	58	n.a.	55	30	-2
Russia <sup>1</sup>	443	24	31 (November)	102	5	26
Saudi Arabia	527	91	123 (October)	171	26	29
United Arab Emirates <sup>1,2</sup>	779	216	n.a.	34	9	-13
<b>Others</b>						
Denmark <sup>1</sup>	78	24	16 (October)	15	5	5
Israel	73	30	1 (October)	-5	-2	10
Switzerland	271	43	225 (October)	63	10	-4

n.a. = not available

1. Bilateral trade balance is for merchandise only.

2. Reserves include 2010 estimated foreign assets of sovereign wealth funds.

3. Reserves are gross financial assets of the Government of Singapore as of March 2011 (may include some domestic assets).

Note: Manipulators in this table are based on 2001–11 data; see text for criteria.

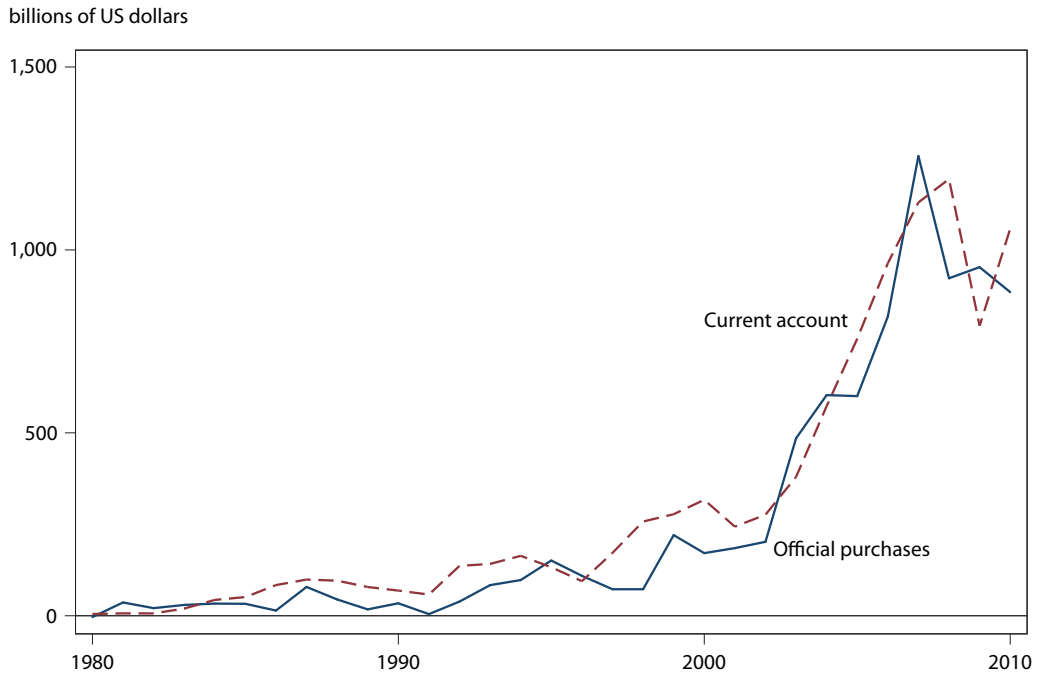
Sources: IMF, *International Financial Statistics* and *World Economic Outlook* databases; Truman (2011, table 1); US Bureau of Economic Analysis and US Census Bureau; and central bank and finance ministry websites of the above countries.

had to maintain full employment through extraordinarily low interest rates that fueled a housing boom that ultimately proved unsustainable and the collapse of which brought on the Great Recession.

During periods of slow growth and prolonged high unemployment like the present, external deficits cause even greater damage to the economy. For 2012, the IMF projects that US GDP is 4 percent below potential—or full employment—GDP.

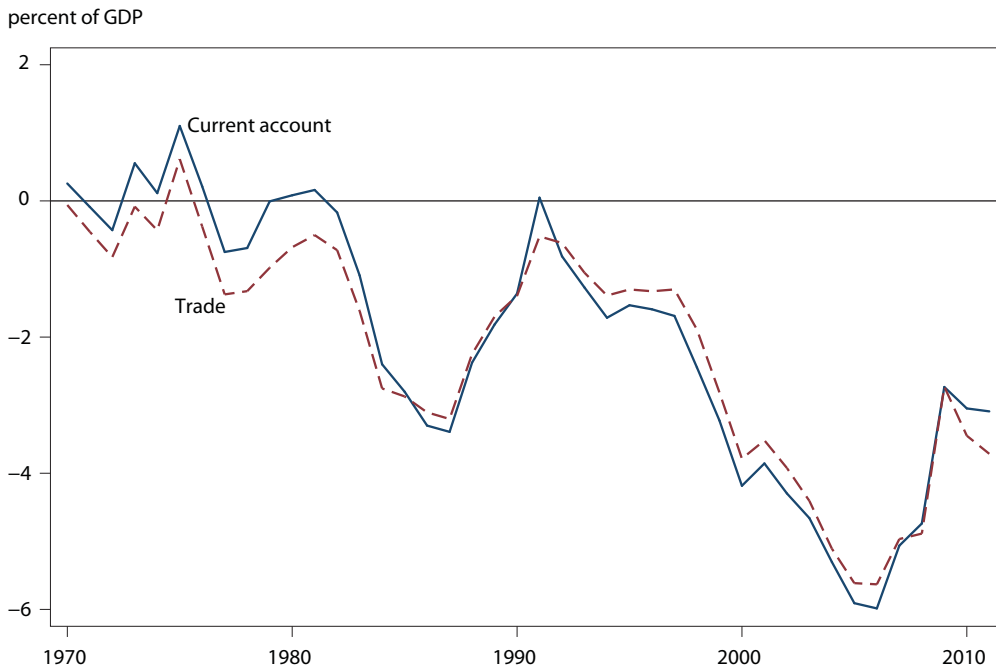
Eliminating excessive currency intervention would narrow the US trade deficit by 1 to 3 percent of GDP and would thus move the US economy much of the way to full employment, with an even larger effect possible once multiplier effects on domestic demand are taken into consideration. The full effects of a cessation of excessive currency intervention probably would take two or three years and they would accelerate the US recovery so that full employment would be reached in three years rather than six,

**Figure 1 External balances of currency manipulators, 1980–2010**



Sources: IMF, *International Financial Statistics* and *World Economic Outlook* databases; Truman (2011, table 1); central bank and finance ministry websites of countries in table 1.

**Figure 2 US current account and trade balances, 1970–2011**



Source: IMF, *International Financial Statistics* database.

as currently predicted by the IMF and *Consensus Forecasts*. This would increase the growth rate of the US economy by as much as 1 percent per year over the next three years. A substantial reduction of the US trade deficit would also reduce or eliminate the buildup of US foreign debt, which now exceeds \$4 trillion and is probably on an unsustainable trajectory (Cline 2009). There would be no cost to the US budget; indeed faster growth would reduce the budget deficit automatically.

To explore the potential effects of a reduction in currency manipulation on the US economy we asked staff of the Federal Reserve Board to simulate the effects within the Fed's macroeconomic model (FRB/US) of a 10 percent depreciation of the trade-weighted dollar beginning in the first quarter of 2013. US monetary policy is assumed to be unaffected until late 2014, at which time the short-term interest rate begins to rise in order to ease the economy back into full employment with inflation near its target of 2 percent. The effects of the depreciation build over two to three years, boosting GDP by nearly 1.5 percent, raising employment by nearly 2 million jobs, and narrowing the current account deficit by nearly 1 percent of GDP. GDP rises by more than the reduction in the current account deficit in part because of a multiplier effect on consumption and investment, which in turn offsets some of the reduction in imports, and in part because the real trade balance responds more strongly than the nominal trade balance.

The Fed model assumes that the US economy will eventually return to full employment even if currency manipulation and the large trade deficit continue, so the long-run effects of a reduction in currency manipulation are somewhat different from the short-run effects described above. In the Fed's model, a permanent depreciation of the dollar in real terms of 10 percent would lead to a permanent narrowing of the US current account deficit by about 1.4 percent of GDP, or \$211 billion as of 2011. The long-run effect of excessive currency intervention on the US current account deficit in 2011 was between \$200 billion and \$500 billion. Thus, the permanent elimination of excessive currency intervention would be associated with a long-lasting depreciation of the dollar of between 10 and 25 percent in real terms. An alternative estimate, based on Cline (2011), is that a permanent reduction in the US current account balance of \$200 billion to \$500 billion (held constant as a share of GDP) would require a real trade-weighted depreciation of 7 to 15 percent.

## The Manipulators

Table 1 displays the countries that intervene aggressively to keep their currencies undervalued and thus to unfairly maintain current account surpluses. A number of countries that have current account deficits also intervene actively to hold

down the values of their currencies (e.g., Brazil and India) but we do not consider them to be currency manipulators. Rather, they intervene defensively to prevent a further decline in their trade balances. There are three main groups of currency manipulators: (1) East Asian countries, (2) oil exporters, and (3) advanced economies in and around Europe.

To be included in table 1, countries must meet *all* of the following criteria:

1. Their foreign exchange reserves at year-end 2011 exceeded six months of goods and services imports.<sup>3</sup> (A common criterion for adequate foreign exchange reserves is three months of goods imports (IMF 2011).)
2. Their foreign exchange reserves grew faster than their GDP between 2001 and 2011.
3. Their current account was in surplus on average (as a share of GDP) between 2001 and 2011.
4. They had gross national income per capita in 2010 of at least \$3,000, which is roughly the median of 215 countries covered by the World Bank's Atlas method rankings.

China has been by far the largest intervener, piling up about \$3.3 trillion of reserves by the end of 2011. The Chinese bought \$1.5 billion daily during 2007, even when they were letting the renminbi rise gradually, and China's current account surplus peaked at 10 percent of its GDP that year.<sup>4</sup> Since then, China's surplus gradually declined but it still bought about \$1 billion daily in 2008–11 and halted renminbi appreciation between 2008 and 2010.

According to the most recent data, China has been intervening at about \$250 million per day in 2012 and its current account is projected to be just over 2 percent of GDP.<sup>5</sup> The authorities let the renminbi rise gradually again after June 2010 and it has appreciated by almost 9 percent against the dollar and about 5 percent in real trade-weighted terms

3. In this Policy Brief we define foreign exchange reserves broadly to include all foreign assets held by the official sector, including foreign assets of sovereign wealth funds.

4. In this discussion of table 1, we refer loosely to purchases and intervention as measured by the change in the level of reserves. The level of reserves is available for more countries and is reported with a shorter lag than data on intervention. In table 2, intervention refers to net purchases of reserves, including reinvestment of earnings but excluding valuation changes.

5. According to data released by the State Administration of Foreign Exchange, China's reserves increased at an annual rate of \$85 billion in the first nine months of 2012 after excluding the effects of valuation changes on the stock of existing reserves. Data in table 1 include such valuation effects. The sharp decline in the pace of reserve purchases was influenced in part by the slowdown in Chinese growth in 2012, which appeared to spark private capital flight away from the renminbi. The flight out of renminbi may halt or reverse if Chinese growth stabilizes or rebounds in 2013.



(including inflation differentials) since that time. Because its productivity continues to grow rapidly, however, China needs to let the renminbi rise steadily in real terms to keep its current account stable, especially if its main export markets in the advanced economies begin a solid economic recovery. Moreover, China's heavy past intervention has lingering effects on the level of the exchange rate, keeping it considerably lower than it would otherwise be. The IMF forecasts that if China's real trade-weighted exchange rate were to remain constant—which would almost certainly require continued large-scale currency intervention—its current account surplus would rise to more than 4 percent of GDP by 2017.

Other East Asian currency manipulators have included Japan, which at \$1.2 trillion is the world's second largest holder of currency reserves.<sup>6</sup> The others, in order of reserve holdings, are Singapore, Taiwan, Korea, Hong Kong, Thailand, and Malaysia. Combined, these countries have accumulated reserves nearly equal to those of China, or \$3 trillion. Except for Japan, they tend to follow China closely in managing their own exchange rates (Subramanian and Kessler 2012). Most of them, like China, have also slowed the pace of intervention over the past year. However, the same future concerns apply as just cited for China.

The second group of currency manipulators, also with total reserves of about \$3 trillion, comprises a geographically diverse set of oil exporters. The largest official holdings of foreign assets, including holdings of sovereign wealth funds, are in the United Arab Emirates, Norway, Saudi Arabia, Russia, Kuwait, Algeria, and Qatar. The oil exporters raise special questions as discussed below.

The third group is mainly composed of countries neighboring the euro area and intervening largely in euros rather than dollars. Total reserves held by this group are much smaller than by the first two. The most important is Switzerland (Gros 2012) but sizable amounts are also recorded by Denmark and Israel. As shown in table 1, Switzerland is by far the leading currency manipulator in 2012 based on available data.

6. Japan has manipulated its currency extensively in previous periods, dating back to the 1970s. This behavior caused substantial conflict with the United States over much of the postwar period (Bergsten and Noland 1993; Bergsten, Ito, and Noland 2001). Japan intervened massively (more than \$150 billion per year) in 2003 and 2004. It then reduced its purchases to less than \$50 billion per year until 2011, when it purchased \$177 billion. Japan's reserves declined in 2012, probably reflecting valuation losses rather than intervention activity. However, at the end of 2012, incoming prime minister Abe publicly indicated a desire to weaken the yen to perhaps 90 yen per dollar, which would expose Japan to renewed charges of currency manipulation.

## What Is Excessive?

Countries are of course justified in holding some level of reserves to provide a cushion against adverse shocks. The traditional rule of thumb has been that holdings should equal three months' equivalent of imports. A more modern, financially based, and very conservative criterion is an amount equal to all short-term debt denominated in foreign currencies. All countries in table 1 exceed these criteria by wide margins.<sup>7</sup>

A more difficult question is whether some countries are justified, for national security reasons, in holding reserves that would normally be deemed excessive on strictly economic grounds. Taiwan (with no recourse to IMF or other international public funding) and Israel are the most obvious cases. Korea, which would need massive financial resources if unification of the peninsula were to happen on short notice as occurred in Germany, may be in that category too. The oil exporters in the Gulf, exemplified by Kuwait's being occupied by Iraq in 1991, might also qualify.

Another key question is whether countries should be allowed to build their foreign exchange reserves, at least for temporary periods, when they experience sharp inflows of "hot money." Hot money tends to flow to developing economies during periods of optimism and to safe havens, such as Japan, Switzerland, and the United States, during periods of market stress. IMF guidelines encourage governments to intervene to counter disorderly market conditions associated with hot money flows but such intervention should occur in both directions roughly equally. Periodic episodes of hot money flows do not justify protracted large-scale intervention in one direction only, which is the case for the countries in table 1.

A related question is whether countries should be allowed to resist persistent upward pressure on their exchange rates caused by bad economic performance or policy by other countries, especially powerful countries like the United States, as occurred during the recent Great Recession, or the euro area, as is occurring with its sovereign debt crisis. This consideration is especially relevant now for Switzerland. It has also been at the heart of the argument by Brazil and some other developing countries that they are being victimized by quantitative easing in the United States. Our view, which is enshrined in the policy guidelines of the IMF, is that countries need to adopt appropriate domestic policies in response to both domestic and external shocks. Exchange rate movements and changes in trade balances are a normal part of the international adjustment process. A country such as Brazil or Switzerland, facing a

7. Data on short-term external debt are missing for some of these countries, but such debt is believed to be extremely low in these cases.

loss of demand from its major trading partners, should respond by stimulating domestic demand and not by manipulating its currency to short-circuit the normal adjustment process.

Although both Brazil and Switzerland have been intervening to resist currency appreciation, we do not list Brazil as a currency manipulator because it has a current account deficit. We see Brazil as a defensive intervener that is engaging in intervention only to offset the negative effect on its trade balance of currency manipulation in other countries. Switzerland, on the other hand, is defending a massive current account surplus in the midst of a double-dip recession in its main trading partner.<sup>8</sup>

The oil exporters raise a separate question. They argue that their production and export of a nonrenewable resource, which is profoundly sought by importing countries and the world economy as a whole, requires them to set aside a substantial amount in financial resources to provide prudentially for future generations. In some cases, these set-asides are placed in sovereign wealth funds. They might respond to calls to stop intervening by reducing production and exports (and, in the critical case of Saudi Arabia, the surge capacity that is essential to maintain global supply in the case of interruptions elsewhere).

A recent paper by IMF staff highlights the issues involved (Berg et al. 2012). Oil exporters differ considerably on the relevant dimensions—years of oil production remaining, cost of production, capacity to absorb domestic investment, rate of return on domestic investment, demographic trends, quality of institutions and governance—which makes it impossible to set a one-size-fits-all standard. Assessing the desired levels of foreign investment, domestic investment, and domestic consumption for each oil-exporting country is a task beyond the scope of this Policy Brief. Hence we do not target the oil exporters for immediate policy action pending further study, but we believe they are an important part of the overall problem of imbalances.

### Manipulation and Current Account Balances

In 2012 for the first time, a pilot report by staff at the IMF explicitly estimated the impact of currency intervention on current account balances as part of a broader effort to analyze the sources of global imbalances (IMF 2012c). The report

8. The Swiss National Bank argues that the Swiss current account is overstated by as much as 5 percent of GDP, mainly because portfolio equity claims by foreigners on Swiss corporations far exceed Swiss portfolio equity claims on foreign corporations, and the retained earnings of portfolio equity claims are not recorded as income flows to the countries where the claimholders reside (IMF 2012a, 31). However, the IMF projects the Swiss current account surplus to remain above 9 percent of GDP for every year from 2012 through 2017, which far exceeds any measurement error.

found a statistically significant effect of intervention on the current accounts of countries with capital controls but no effect at all on countries with open capital markets. Previously, one of us (Gagnon 2011, 2012) estimated a much larger effect of intervention on the current account. Table 2 revisits the IMF analysis and considers several improvements that raise the estimated effect substantially (see box 1 for details).

**Each \$1.00 of intervention strengthens the current account by somewhere between \$0.70 and \$0.90 in the long run.**

Figure 1 presents a simple check on these results. For the currency manipulators listed in table 1, current accounts and intervention (official flows) have nearly a dollar for dollar correlation. Although figure 1 and table 2 could be used to support an estimated long-run effect of intervention on the current account of dollar for dollar, we prefer to be conservative. Thus, we assume that each \$1.00 of intervention raises the current account by somewhere between \$0.70 and \$0.90 in the long run.

In 2011, total accumulation of foreign exchange reserves was about \$1 trillion. Accumulation of foreign assets in sovereign wealth funds that are not reported as reserves is not known precisely but is estimated to be roughly \$300 billion. How much of this \$1.3 trillion or so in accumulation of official foreign assets is excessive? We estimate that about \$1 trillion, or perhaps a bit less, represents excessive currency intervention. That estimate is based on \$70 billion of reserve accumulation by countries whose foreign exchange reserves in 2011 were less than the equivalent of three months of imports and on a rough guess that \$250 billion of foreign asset purchases by oil exporters is justifiable. We argue that accumulation of reserves by countries whose reserves already exceed three months of imports is excessive. Moreover, if the currency manipulators (listed in table 1) stop intervening, there will be less pressure on the defensive interveners (e.g., Brazil and India) to continue doing so as well.

We note that in 2011, nominal GDP of the 22 manipulators in table 1 was 31 percent of global GDP. There were 91 additional countries—almost all in the developing world—with reserves greater than three months of imports, and their share of global nominal GDP was 18 percent. All of these 91 countries were net purchasers of reserves over the past 10 years; we refer to them as the defensive interveners. Finally, there were 43 countries with reserves less than three months of imports and a share of global GDP of 51 percent. These are the noninterveners, mainly in the advanced world.

**Table 2 Effect of foreign exchange intervention on the current account, 1986–2010**

Regression	Purchases of foreign exchange reserves	Purchases × controls	R <sup>2</sup>	Number of observations
1. IMF pilot EBA regression (August 2012)	–	0.40** (0.18)	0.40	1,099
2. EBA regression with improved data and new instruments	0.30** (0.12)	0.13 (0.28)	0.41	1,079
3. Above regression, treating euro area as a single country	0.45*** (0.12)	0.02 (0.26)	0.44	947
4. EBA regression with improved data and new instruments, 5-year averaged data	0.67*** (0.13)	–0.13 (0.34)	0.60	219
5. Above regression, treating euro area as a single country	0.86*** (0.14)	–0.14 (0.35)	0.67	189
6. Above regression, dropping insignificant variables and country dummies	1.01*** (0.14)	–0.10 (0.40)	0.57	189
7. Regression without auxiliary variables, 5-year averaged data limited to above sample	1.09*** (0.15)	–0.31 (0.44)	0.32	189
8. Above regression extended beyond EBA sample	0.72*** (0.20)	–0.08 (0.43)	0.25	216

EBA = External Balance Assessment

Note: This table presents results from panel regressions of the current account balance as a percent of GDP on net purchases of foreign exchange reserves and other official foreign assets, on reserve purchases times a measure of capital controls, and on other auxiliary variables. Line 1 replicates the regression described in IMF (2012c) based on 50 countries and 25 years of data. Line 2 replaces the instruments used by the EBA (for reserve purchases) with the lagged 5-year moving average of reserve purchases and the lagged ratio of reserves to total imports. For Norway and Russia only, the instruments include the lagged 5-year moving average of net energy exports, starting with the inception of their oil reserve funds. For the regressions on 5-year averaged data, lagged purchases of reserves are dropped from the instrument set. Improvements to the data are described in the text. Line 8 includes observations—within the same 50 countries and 25 years as the EBA analysis—that were not included in the original EBA regression because some auxiliary variables are missing. \*\*\*, \*\*, and \* denote significance at the 1, 5, and 10 percent levels, respectively, using robust standard errors (in parentheses).

Sources: IMF, *International Financial Statistics* and *World Economic Outlook* databases; World Bank, *World Development Indicators* database; Truman (2011, table 1); central bank and finance ministry websites of countries in table 1; IMF (2012c); authors' calculations.

A first cut, based on the above analysis, suggests that a reduction in currency intervention of \$1 trillion per year would be expected to reduce the current account balances of the currency manipulators and defensive interveners by \$700 billion to \$900 billion per year. The current accounts of the noninterveners would rise by an equal amount. However, some of the effect of currency intervention may fall on the current accounts of other interveners. The following analysis suggests that the current accounts of the noninterveners may rise by between \$400 billion and \$800 billion.

The most important noninterveners by far are the United States and the euro area. Table 3 explores how much their current accounts would be affected by a \$1 trillion reduction in global currency intervention. The first row lists the share of world GDP accounted for by each region. The second row lists the share of each region's currency in world foreign exchange reserves for those countries that report the currency denomination of their reserves.<sup>9</sup> We view these as lower and upper bounds

9. The share of other noninterveners (mainly the United Kingdom, Canada, Australia, and Sweden) in global GDP is 10 percent, and their share in reserve currencies is somewhere between 4 and 9 percent.

on how much of the effect of currency manipulation falls on these regions. Somewhat to our surprise, the statistical fit of current account regressions is not affected to any noticeable extent whether the spillover to the rest of the world is assumed to be in proportion to GDP or in proportion to reserve liabilities.

The dollar ranges in each row represent the products of the associated world shares with the range of \$700 billion to \$900 billion discussed above for the overall effect on current accounts of excessive intervention. We believe that the spillovers of intervention onto other countries' current accounts are likely to be greater in countries with more open and attractive financial markets. The United States and the euro area have the world's largest and most open financial markets.<sup>10</sup> For this reason, the effects on the United States and the euro area are almost certainly greater than those shown in the first line of table 3. On the other hand, to assume that the effect is proportional to the currencies in which intervention occurs almost

10. Attempts to estimate an effect of capital mobility on the spillover of intervention to the current accounts of other countries were unsuccessful. This probably reflects failings in the measures of capital controls, as discussed in box 1.



### Box 1 Currency intervention and current account balances

Table 2 presents results of regressions of the following form:

$$\text{Current Account} = \alpha \text{ Intervention} + \beta \text{ Intervention} \times \text{Capital Controls} + \text{auxiliary variables}$$

Line 1 displays the regression in the pilot External Balance Assessment (EBA) (IMF 2012c). The regression includes 50 important advanced and developing countries over 25 years, from 1986 through 2010. There are 19 auxiliary variables in the regression, which are intended to control for other important influences on the current account. The auxiliary coefficients are not shown here to save space. The auxiliary variables include net foreign assets, net oil exports, purchasing power parity (PPP) GDP per capita, a medium-term GDP growth forecast, the gap between actual and potential GDP, the fiscal balance, health spending, various demographic terms, measures of financial market volatility, some country dummies, and interaction terms of the foregoing variables.

The coefficient on intervention (not interacted with capital controls) was not statistically significant and is excluded from the published regression. The coefficient on intervention interacted with capital controls is 0.40. The capital controls variable ranges from 0 (least restrictive) to 1 (most restrictive), so the effect of \$1.00 of intervention on the current account ranges from \$0.00 to \$0.40. Advanced economies have capital controls = 0; China had capital controls = 0.57 in 2010.<sup>1</sup> Thus, the EBA analysis implies that each \$1.00 spent by China on intervention increases its current account by \$0.23.

Line 2 presents an alternative regression with five changes from line 1. First, it includes all net official purchases of foreign assets, not just purchases of foreign exchange reserves. This includes purchases of sovereign wealth fund assets by Norway and Singapore based on data from their respective ministries of finance. Second, purchases of reserves (but not other official assets) are allocated as negative official flows to the countries that issue reserves according to the IMF's Currency Composition of Official Foreign Exchange Reserves data, adjusted for valuation changes. Third, it uses a more appropriate set of instruments to control for endogeneity of intervention with respect to the current account. Fourth, it replaces the auxiliary variable, net foreign assets, with net private foreign assets because any effect on the current account of the difference between these terms—net official foreign assets—should be considered part of the overall effect of intervention. Fifth, it replaces an auxiliary variable, the moving average of oil exports in Norway and Russia only in years when they exceeded 10 percent of GDP, with net energy exports for all countries and years. Of these changes, the most important is the use of net private foreign assets. The coefficient on intervention is now strongly significant and that on the interacted term is not.

Line 3 replaces the 11 individual countries of the euro area with a single observation per year based on their GDP-weighted average beginning in 1999. The original regression model does not explain the current account imbalances within the euro area well, and countries with a common currency cannot be considered to have differences in foreign exchange policies. The fit of the regression improves noticeably with this change, as evidenced by the  $R^2$  statistic. The coefficient on intervention rises while that on intervention interacted with capital controls declines further.

Line 4 revisits the regression of line 2, but now the regression is conducted in terms of 5-year averages of the data. It is common in the academic literature on current accounts to use multiyear averages in order to focus on longer-run effects (Chinn and Prasad 2003). Also, the volatile nature of intervention in response to volatile private capital flows appears to bias the coefficient downward; averaging the data over time may reduce this bias. The coefficient on intervention rises further. Line 5 shows that treating the euro area as a single country further raises the coefficient. Line 6 shows that dropping auxiliary variables that are not statistically significant as well as dropping dummy variables for specific countries raises the coefficient all the way to 1. (There are eight auxiliary variables remaining.)

The coefficient rises a bit above 1 if all auxiliary variables are dropped (line 7). However, dropping all auxiliary variables allows us to expand the sample to include years for which some of the auxiliary data are missing for some of the countries. Line 8 shows that in this expanded sample the coefficient drops to 0.72, still highly significant.

The coefficients on the interaction of intervention and capital controls are insignificant in lines 2 through 8 and dropping these terms never materially affects the coefficient on intervention. There are strong reasons to believe that the effect of intervention may be influenced by the depth and openness of a country's financial markets. But estimates of a differential effect have proved elusive, probably because our measures of capital controls are not a good proxy for the openness and efficiency of financial markets in each country.

1. The measure of capital controls used by the EBA was developed by Dennis Quinn (1997) and was updated by Quinn for the IMF. The results are not affected by use of other measures of capital controls, such as that of Menzie Chinn and Hiro Ito (2006).

**Table 3 Effect of \$1 trillion reduction in currency intervention on US and euro area current account balances**

Allocation basis	United States		Euro area	
	World share (percent)	Range of current account effect (billions of dollars)	World share (percent)	Range of current account effect (billions of dollars)
Nominal GDP	22	154–198	19	132–169
Reserve liabilities	62	434–558	25	175–225

Sources: IMF, *World Economic Outlook* database; IMF, *Currency Composition of Official Foreign Exchange Reserves*; authors' calculations.

certainly overstates the effect because private capital may flow into third countries in response. Overall, we believe a conservative range for the United States is \$200 billion to \$500 billion and for the euro area is \$150 billion to \$200 billion.<sup>11</sup> The wide range for the United States reflects the discrepancy between the size of the US economy in global GDP and the prominent role of the dollar as a reserve currency. We hope that the width of this range can be reduced in future analyses.

The preceding estimates are based on complete data for 2011. Based on IMF projections and available data for 2012, excessive currency intervention may have declined about 20 percent or so in 2012. Accordingly, the effects of excessive intervention on the current accounts of the United States and the euro area may be 20 percent lower in 2012 than the ranges shown in table 3. But any estimate for 2012 carries a considerable degree of uncertainty, given the limited and preliminary nature of the data. Moreover, intervention is volatile and its effects tend to linger, so it is probably more useful to focus on the average level of intervention over a longer period than the past few months.<sup>12</sup>

A key question is what a cessation of currency manipulation would mean for the 91 defensive interveners, such as Brazil and India. Initially, they should experience an increase in their current account balances from less foreign intervention. But they would probably respond by reducing or even eliminating their own intervention. For most of them, holding foreign exchange reserves carries a large fiscal burden because their domestic interest rates are much higher than the interest

rates they earn on their reserves. On balance, we think that a cessation of currency manipulation would have little effect on the current accounts of the defensive interveners. But it would yield an important payoff for them in terms of a reduced fiscal burden of holding large foreign exchange reserves. This payoff is the primary motivation for the defensive interveners to join the coalition against currency manipulation.

### The Systemic Context

It will be important to approach the current policy problem in the broader context of the inability of the global economic system to prevent and resolve such conflicts throughout the postwar period. Similar problems surrounded the undervaluation of the deutsche mark in the 1960s, of the yen in the 1970s and 1980s, and of the currencies of the newly industrializing countries (Hong Kong, Korea, Singapore, and Taiwan) in the late 1980s as well as of China and the other currency manipulators of the past decade. This failure is in fact the greatest design flaw in the Bretton Woods architecture for the postwar world economy. It is a huge irony that the Bretton Woods system was created at the end of the Second World War primarily to avoid repeating the disastrous experiences of the interwar period with competitive devaluations, which led to currency wars and trade wars that in turn contributed importantly to the Great Depression, but that the system has failed to do so.

The overarching problem is the failure of the system to place effective constraints on the behavior of surplus countries (Williamson 2011). Keynes wanted to include such sanctions at Bretton Woods but the United States, the dominant surplus country of the day, vetoed them. Hence it has been a continual struggle to persuade or force surplus countries to accept symmetrical responsibilities for global equilibrium, especially when it required them to permit substantial appreciation of their exchange rates. The United States was thus forced—on the

11. The associated range for the other noninterveners is \$50 billion to \$100 billion.

12. The decline in intervention in 2012 may reflect a temporary response to a swing in private capital flows. In a recent speech, Mervyn King (2012), governor of the Bank of England, stated “my concern is that in 2013 what we will see is the growth of actively managed exchange rates as an alternative to the use of domestic monetary policy.... And you 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.”

two previous occasions (1971 and 1985) when it decided that trade and thus currency adjustments had become vital for its national interests—to take the initiative and aggressively seek a resolution outside of the normal institutional procedures.

The system's problem is twofold. First, the IMF, whose rules and institutional makeup govern global monetary affairs, has a highly politicized (as well as outdated) decision-making process and limited enforcement instruments. Designation of a country as a currency manipulator requires a majority of the voting shares of the Executive Board and a powerful defendant, such as China, can mobilize institutional opposition for reasons completely unrelated to the issue itself. Only two countries (Sweden in 1982 and Korea in 1987) have ever been pursued for currency reasons, and in the end, neither was designated as a manipulator (Boughton 2001). Even if a country were designated, moreover, the Fund could only name and shame and try to persuade it to comply. No sanctions are available except suspension of a country's voting rights in the IMF, which would require a 70 percent majority vote, and expulsion, which would require an 85 percent majority vote. Both sanctions would be difficult to enact and neither might be viewed as sufficiently harsh.

Second, the WTO has available sanctions—the ability to authorize trade restrictions against an offender—but such a torturous path to action that it has never been tried, let alone implemented. As an initial step, the WTO has to ask the IMF whether a country has manipulated its currency, raising the problems in that institution just noted. Even if that hurdle were overcome, the most relevant WTO provisions, covering currency manipulation per se (Article XV) and the use of manipulation to subsidize exports (the Subsidy Code), are totally untested and extremely vague on this topic, leading many experts to argue that appeals to them would not produce authorization for remedial action (Hufbauer, Wong, and Sheth 2006). And even if all these hurdles were overcome, WTO-authorized actions would cover only half the problem: the offending country's exports to the complaining country. No remedies exist on the trade books, even in principle, to deal with the effect of manipulation on the manipulating country's imports or on its trade with third countries.

These flaws in the institutional design of the Bretton Woods architecture are greatly exacerbated by the bureaucratic politics of the system. At the international level, there is very little communication let alone coordination between the IMF and the WTO. They have never worked effectively together on a problem nearly as important and sensitive as currency manipulation. Similar bifurcations exist at the national level. In the United States, for example, the Treasury Department handles currency and trade imbalance issues and represents the

country at the IMF. The United States Trade Representative handles trade policy, including subsidy cases, and represents the United States at the WTO. The policy options that require linkage between currency and trade would thus face additional practical complications.

## THE POLICY RESPONSE

A US strategy to terminate currency manipulation, especially if undertaken together with some of the other countries that are adversely affected by the practice (including Australia, Canada, the euro area, Brazil, India, Mexico, and numerous developing countries), would be fully compatible with its international obligations. Successive G-20 summits have in fact called on the United States and the corresponding surplus countries to rebalance their economies to substantially reduce their external deficits and surpluses, and the G-20 could be a useful forum for pursuing the new initiatives. In practical terms, the United States has run large current account imbalances for 30 years, facilitating export-led growth by many other countries (notably including China) and becoming by far the world's largest debtor country (\$4 trillion). No one could fairly accuse the United States of competitive devaluation or beggar-thy-neighbor policies of its own, although the methods pursued by the United States to eliminate the currency misalignment and its ability to enlist allies in the effort will have an important bearing on global reactions to its new initiatives.

Moreover, current IMF guidelines call on all member countries that intervene to consult with the countries in whose currencies they do so. This principle has been observed de facto among the major advanced economies, through joint discussion of all intervention activities. However, the principle has never been observed, to our knowledge, outside the advanced economies, where most of the manipulation now takes place.

The IMF has now also released an "institutional view" on the management of international capital flows. This new policy doctrine is aimed primarily at developing countries but has large implications for the United States as a huge net importer of capital. As laid out in box 2, we believe the IMF doctrine strongly supports action by the United States and other adversely affected countries to address currency manipulation forcefully.

The operating rules of the Bretton Woods dollar-based system of fixed exchange rates in the postwar world made it extremely difficult, if not impossible, to achieve realignment of the exchange rate of the dollar without explicit negotiation of the issue or even systemic disruption. According to the conventional view, there is a fundamental asymmetry in the international monetary system: The dollar is the "nth currency" in a world in which only  $n - 1$  exchange rates can exist without

## Box 2 The new IMF doctrine on capital flows: Implications for the United States

On December 3, 2012, the IMF published a formal statement of its “institutional view” on the management of capital flows (IMF 2012e). This document codifies the results of a series of staff papers in recent years that examine the benefits and costs of capital flows and policy measures to control them.

The IMF bases its new doctrine primarily on the study of developing economies but the findings have broad applicability, including to the United States. As has happened in many developing economies, the United States is experiencing large capital inflows. These inflows are heavily weighted toward debt securities, which are riskier than foreign direct investment or portfolio equity securities. The inflows are denominated mainly in US dollars, however, which mitigates some of the risk to the United States.

It is not clear whether the large role of foreign governments in US inflows increases or decreases their riskiness. On the one hand, foreign governments could be less prone to panics and herd behavior. On the other hand, some foreign governments could have nonpecuniary objectives that conflict with the interests of the United States.

In its advice on managing large capital inflows, the IMF stresses the importance of a sound institutional and regulatory structure that channels the inflows toward productive investment. It is generally assumed that advanced economies such as the United States have such a sound structure. However, the US housing bubble and bust of the past decade show that even advanced economies may not always put large capital inflows to good use. The passage of the Dodd-Frank bill on financial reform is a major step toward correcting weaknesses in the US financial system, but there is no such thing as a bulletproof system. The risks that large capital inflows pose to the US financial system can never be eliminated.

The IMF also recognizes that large capital inflows have macroeconomic consequences. The first line of defense against large capital inflows is appropriate macroeconomic policies (IMF 2012e, 17–18):

- lower interest rates if there is no risk of inflation or asset bubbles;
- allow the currency to appreciate if it is not overvalued; and
- accumulate more foreign exchange reserves if the level of reserves is not excessive.

When the scope for adjusting macroeconomic policies is limited, the IMF acknowledges that capital flow measures (CFMs) “can be useful for supporting macroeconomic policy adjustment and safeguarding financial system stability” (IMF 2012e, 18).

How does the current position of the United States relate to these principles?

- The Federal Reserve has lowered its policy rate to zero and taken extraordinary steps to reduce longer-term interest rates to record low levels.
- Tighter fiscal policy might further reduce long-term interest rates but it would slow an economic recovery that is already far too anemic.
- The dollar is already overvalued, as evidenced by the current and projected future large current account deficits.
- US foreign exchange reserves of \$52 billion are tiny in comparison with standard metrics, such as three months of imports (\$666 billion).

The only macroeconomic policy on which the United States has scope for action is accumulation of more foreign exchange reserves. If accumulation of more reserves is not feasible or does not improve the macroeconomic outlook sufficiently, the IMF doctrine allows for the use of CFMs. The IMF notes with tacit approval three specific examples of CFMs that have been used in recent years: Brazil’s tax on certain types of inflows, Indonesia’s holding period on central bank bond purchases, and Korea’s leverage caps on banks’ derivatives positions. The general principles are that CFMs should be transparent, targeted, temporary, and nondiscriminatory.

The proposals of this Policy Brief satisfy the first three principles but not the fourth. We believe the fourth principle does not apply in the context of currency manipulation because it violates the second and more important principle of being targeted.

*(box continues)*

**Box 2 The new IMF doctrine on capital flows: Implications for the United States** *(continued)*

- Our proposals are transparent because they would be announced publicly with an explanation of their rationale.
- Our proposals are targeted specifically at the illegal actions of specific governments. In addition, they are scaled to be commensurate with the magnitude of those actions.
- Our proposals are temporary because they call for policy measures that would cease if and when foreign governments cease their currency manipulation.
- Our proposals would discriminate against only the guilty parties. We believe that discrimination is desirable in these circumstances.

The United States adheres to the Organization for Economic Cooperation and Development's Code of Liberalization of Capital Movements (OECD 2011). This code was adopted by the United States and some other advanced economies in 1961. The code does not prevent the types of measures we are proposing. For a subset of our proposals (CCI and taxes or restrictions on short-term debt flows), no special procedures apply. For taxes or restrictions on other capital flows, the United States would need to invoke the code's derogation clause. A country may use the derogation clause "if the overall balance of payments... develops at a rate and in circumstances...which it considers serious." There have been numerous invocations of the derogation clause, including by the United States from 1968 to 1974 in response to persistent downward pressure on the US dollar. Germany, Japan, and Switzerland have invoked the clause at times in response to upward pressure on their currencies.

conflict (McKinnon 1979, Lindert and Kindleberger 1982).

The authorities behind the currency in which most international transactions take place, including market intervention by monetary authorities, are expected to remain passive in the currency markets. Hence the exchange rate of the dollar is a residual of the combined actions of all the other countries.

This might be acceptable to the United States if all other major countries had moved to floating freely, but of course many have not. It might be acceptable (or even desirable) to the United States when its economy is performing well, even with large external deficits, when it mainly sought financing for its deficits—that is, the “deficit without tears” stemming from the dollar's role that other countries often envy and criticize.<sup>13</sup> But it becomes unacceptable to the United States when it decides that it needs to reduce its deficits, rather than finance them, and finds that reducing them is not consistent with the dollar's “nth currency” role.

On several occasions in the postwar era, the United States has had to adopt an array of measures to pursue its periodic realignment goals that essentially challenged the conventional view of the passive role of the dollar in the international system. These measures can be categorized in two ways. Substantively, they have encompassed both macroeconomic and/or trade

policy steps. Tactically, they were pursued either voluntarily and cooperatively or coercively and unilaterally. Table 4 depicts these alternatives in a simple 2-by-2 matrix and indicates past or potential examples in each cell.

There are entries in each cell in the matrix. To date, all examples of successful macroeconomic adjustment have been conducted voluntarily and largely cooperatively (and usually multilaterally). By contrast, virtually all successful deployments of trade policy instruments have been coercive and unilateral. Each past realignment episode of course comprises some mix of genuine voluntarism and coercion, overt or implied, but these generalizations largely hold throughout the postwar history to date.

Historically, the United States has been virtually the sole *demandeur* of action by the surplus countries. (The surplus countries were of course usually vocal in their demands that the United States, as the deficit country, take full responsibility for the needed adjustment.) This was largely because, as noted above, US policymakers believed that the international role of the dollar was not consistent with US use of the kinds of policy actions recommended in this analysis (notably direct intervention in the currency markets). It was also frequently because the United States was the only large deficit country and, critically, because it was the only country that was large enough that its actions would inevitably carry major systemic implications.

13. We argue below, however, that this “exorbitant privilege” is overstated and is, in fact, more of a burden than a blessing.



**Table 4 Typology of potential adjustment measures**

	<b>Voluntary/cooperative (by surplus countries)</b>	<b>Coercive/unilateral (by deficit countries)</b>
Macroeconomic policy	Expansion of domestic demand (Bonn Summit 1978)	Countervailing currency intervention
	Joint intervention (Plaza Agreement 1985)	Taxes on foreign exchange buildup
Trade policy	Reduction of export subsidies	Countervailing duties
	Import liberaliza- tion (unilateral or via negotiations)	Import surcharges (Nixon 1971)

Source: Authors' illustration.

Several of these conditions have now changed. The euro has become a sufficiently important international currency that intervention in it, e.g., by Switzerland, has a substantial effect on the European economy. China has become large enough that its currency intervention and undervaluation, and the resulting current account surpluses, have impact on a large number of other countries (rather than just the United States) and indeed on the functioning of the global economy as a whole. At the same time, some of the other affected countries, such as Brazil, have become sufficiently important and self-confident to protest those adverse effects.

The multipolarization of the world economy thus has important implications for the policy instruments that could be adopted to counter the manipulation problem. There is both a more balanced division of surplus and deficit countries, epitomized by China and the United States but ranging well beyond them, and a greater assertiveness on the part of countries on both sides of that divide. The end of the Cold War is also an important factor: America's allies in that struggle, especially the major surplus countries Germany and Japan, were dependent on it for their security in a way that no longer exists (although may again become necessary for Japan vis-à-vis China). In addition, the associated evolution toward a multiple reserve currency system with multiple international financial centers means that other countries are not forced to use the dollar or US financial markets, and thus the United States can now contemplate dollar policies that might previously have been systemically destabilizing but are no longer. This new global economic and policy context is of central importance in considering potential courses of action to remedy the manipulation problem.

In particular, the United States can and should now seek to mobilize a coalition as broad as possible to counter the currency manipulators. The euro area is the most natural ally since its weak economy is adversely affected, its currency is widely used

for intervention by most of the manipulators, and it is one of the few truly free floaters (along with the United States) in the system. The euro area as a whole has been running a small surplus in its current account but could be expected to run a substantial surplus in its currently depressed state. The euro area should adopt more expansionary monetary policy and less rapid fiscal consolidation, with at least a modest fiscal expansion in Germany and a few other countries. But an additional boost from a moderate depreciation of the euro would provide substantial assistance to the recovery of the countries in its periphery (though it would also further enhance the undesirably large German surplus, which is why fiscal or other expansion of domestic demand in Germany is especially needed).

A number of developing economies are also adversely affected by the currency manipulators. Brazil is perhaps the most dramatic case and has led the effort to address the issue internationally.<sup>14</sup> It would certainly be an active candidate for any coalition that sought resolution of the manipulation problem. So would Mexico, which may have been more adversely affected by Asian manipulation than any other country. India is another major emerging market that has complained vocally about Chinese manipulation.

The United States should thus begin any campaign to counter currency manipulation, at present and/or preemptively regarding the future, by seeking to assemble as broad a coalition as possible. Such an effort will not be easy as many emerging markets, and even the European Union, will hesitate to confront some of the manipulators (most obviously China). The success of the effort will of course turn importantly on the "hit list" and the nature of the policy instruments that would be envisaged. Hence both those calculations must be made with coalition-building considerations in mind because maximizing the size and clout of such a group should help immeasurably in inducing the manipulators to desist voluntarily, and to deter such action in the future, by presenting a united front against them. The coalition would of course be even stronger if it could agree on a set of policy actions that it would deploy if necessary, presumably on a graduated basis and differentiated country-by-

14. In addition to employing aggressive rhetoric, Brazil has managed to get the WTO to review the literature on the links between currency and trade issues and to hold a seminar to discuss it. However, it made two tactical errors that doomed its initiative. First, it attacked the United States as well as China for currency manipulation on the grounds that quantitative easing by the Federal Reserve was the equivalent of currency intervention by China; quantitative easing certainly has exchange rate effects but so do all domestic monetary initiatives, which are very different from direct manipulation of the exchange rate. Second, Brazil launched its initiative in the WTO and thus immediately raised the specter of trade retaliation rather than exploring more straightforward macroeconomic alternatives, which would raise far fewer institutional (including turf) complications and would be necessary anyway because the WTO must rely on the IMF for judgments regarding the existence and magnitude of currency misalignments.

country depending on the depth and nature of the manipulation, to back up its agreement in principle on the need to curtail the offensive policies.

### Voluntary Solution

The proposed coalition should first seek voluntary cooperation to halt the currency manipulation, as the United States has tried to date with China. It should do so by making its economic case, both privately to the manipulators and probably in public as well, and clearly specifying its resolve to achieve effective remedial actions. The desired outcome would be for the manipulators to cease the buildup of excess reserves by halting immediately, phasing out, or severely limiting their intervention in the foreign exchange markets. It is particularly important to avoid reversal of the progress that has already been made, i.e., a renewed increase of intervention producing a renewed increase in undervaluation of the renminbi and subsequent renewed increases in China's current account surpluses.

Such agreements could be reached and implemented bilaterally or multilaterally. There is a strong case for the latter, however, because of the collective action nature of the issue from the standpoint of the currency manipulators themselves. If Korea or Taiwan agreed to stop intervening but China continued to do so, those countries would clearly be disadvantaged by moving on their own. Hence it would be desirable for all the manipulators to take the pledge together. A useful model might be the Plaza Agreement—although it was constructed to counter a misalignment caused by market error rather than policy intervention—which brought together all the major surplus countries of the day to act together to correct the massively overvalued dollar. The manipulators could emphasize the voluntary nature of their commitment by doing it themselves (a Kuala Lumpur Agreement?) rather than with the aggrieved coalition. An impartial and credible international institution, presumably the IMF, should be engaged to monitor compliance.

Another lesson from the Plaza period is also instructive. When the G-5 countries (Europe and Japan) agreed to realign their currencies against the dollar, the newly industrializing economies of the day—Hong Kong, Korea, Singapore, Taiwan—felt no obligation to go along. They continued intervening at pre-Plaza levels and so experienced large new depreciations of their exchange rates and soaring trade surpluses. A whole new initiative was thus required to bring them into conformity with the G-5 program (Balassa and Williamson 1987). The lesson for today is of course that all major manipulators must be included to avoid free riding and undermining the objectives of the effort, as well as inequity among the target countries.

Our proposed voluntary approach would have four important new features. One would be pursuit of the intervention issue per se by the coalition of aggrieved countries, going well beyond the earlier G-20 efforts in terms of both the breadth of the group and the specificity of its “ask.”

Second would be placing the ask within a firm multilateral institutional framework through invocation by the United States and its allies of the IMF's Guidelines for Bilateral Surveillance of Exchange Rate Policies, which, as noted above, recommend that “Members should take into account in their intervention policies the interests of other members, including those of the countries in whose currencies they intervene.” China and Switzerland, for example, should thus be asked to consult with the United States and the euro area, respectively.

Third would be the willingness of the coalition, or at least some major members of it, to take explicit policy measures in support of their goals if the voluntary approach did not produce satisfactory results. This element of the strategy would of course have to be pursued deftly but needs to be credible to differentiate the approach from past efforts whose results were clearly inadequate.

The substantive policy measures are described in detail below. An initial procedural step would be explicit designation of the currency manipulators as such by the United States. Current US law, which is based on the same principles that are in the IMF Articles of Agreement, clearly calls for such a designation. It would be desirable for other members of the antimanipulation coalition to make similar statements in order to make clear the unified approach of the group.

Both the George W. Bush and Barack Obama administrations have argued that designation of China as a manipulator would reduce rather than enhance the prospects for its responding constructively on the currency issue and that quiet diplomacy is more likely to succeed than public confrontation.

Presumably the same argument would apply to other designated currency manipulators. These administrations point to the progress cited above, in terms of the noteworthy appreciation of the renminbi and the decline in China's external surplus, in support of their thesis. But it can be argued with at least equal force that the Chinese steps responded, often with a lag, primarily to the US (and other foreign) pressure and that ratcheting up that pressure via designation would produce correspondingly more helpful results. In any event, the first two elements of this approach provide an opportunity for further quiet diplomacy, and public designation of manipulators would occur only after negotiation had failed.

An important part of this new approach is the designation of a number of countries, rather than China alone, as manipulators. The facts, as laid out in the first section of this Policy Brief, justify naming close to two dozen countries (in

the next section we argue for designation of eight manipulators). Doing so would avoid the stigma for China of being singled out and would in fact highlight the collective action nature of the problem for the manipulators themselves.

The fourth and final element of the proposal is that the coalition countries simultaneously acknowledge the problem of how to replace net exports as an engine of growth for currency manipulators, as the G-20 has already done with its emphasis on rebalancing. Otherwise, the entire exercise risks being perceived as a zero-sum game with obvious winners and losers. The G-20 is considering an infrastructure initiative for developing economies within the framework for strong, sustainable, and balanced growth. The coalition should seize this agenda and make it an integral part of the broader campaign, perhaps further enriching it to include consumption and social safety nets in order to be more relevant for China.

### List of Targets

The key operational question then becomes which of the countries shown in table 1 to approach. We propose excluding some for the following reasons:<sup>15</sup>

1. The oil exporters have a strong case to continue investing a substantial amount of their revenues in foreign financial assets. We suspect that a number of oil exporters are exceeding a reasonable norm for such investment, however. Hence we call on the IMF to publish detailed assessments of the optimal levels of foreign investment, domestic investment, and consumption in specific oil-exporting countries, taking due account of the externalities posed by official capital flows in a time of global economic slack. We would put Algeria, Azerbaijan, Kazakhstan, Kuwait, Norway, Qatar, Saudi Arabia, and the United Arab Emirates on a watch list pending results of this IMF study. We would not target Angola, Libya, or Russia because they are projected to run current account deficits by 2017.
2. Israel and Thailand are projected to have moved into deficit on their current accounts in 2012. We believe

15. According to the Omnibus Trade and Competitiveness Act of 1988, the US Treasury is required to designate countries as currency manipulators based on three criteria: (1) They violate the IMF prohibition on currency manipulation to prevent effective balance of payments adjustment; (2) they have a material current account surplus; and (3) they have a significant bilateral trade surplus with the United States. We believe the third criterion is misguided. A bill that passed the Senate in 2011 would remove the last two criteria and replace them with a criterion based on fundamental misalignment of the country's real exchange rate, which is effectively similar to our approach focusing on recent and prospective current account surpluses.

that a key feature of a currency manipulator is a current account surplus so would not include these countries.

3. Japanese foreign exchange reserves have declined so far in 2012. Intervention is often volatile because of the volatility of private capital flows, so we would place Japan on a watch list but not designate it as a currency manipulator for now. However, intervention to achieve incoming prime minister Abe's stated goal of weakening the yen to perhaps 90 yen per dollar could move Japan onto the target list of manipulators.

Thus on our list of initial target countries are China, Denmark, Hong Kong, Korea, Malaysia, Singapore, Switzerland, and Taiwan. The specific appeals to each should of course be tailored to their respective national situations and designed to maximize the chances for their cooperative agreement. Based on partial data for 2012 (see table 1) the targeted countries are intervening at an annual rate of about \$500 billion.<sup>16</sup> This is only half of our estimate for excessive intervention across all countries in 2011. Much of the shortfall is accounted for by oil exporters, who would be subject to action at a future date pending further study. Most of the remainder is associated with defensive interveners, who are mainly trying to keep competitive with the target countries. We believe that a cessation of manipulation by the target countries would greatly reduce intervention by most other non-oil-exporting countries. The remedial effort could thus achieve adjustment effects that add up to much more than just the shares of the target countries themselves.

### Macroeconomic Options

The United States has two major macroeconomic policy options, hopefully with substantial support from its coalition partners, to achieve the needed realignment if voluntary action proves inadequate. The first is countervailing currency intervention (Bergsten 2007, 2010). The second is restrictions on, or taxation of, investment of the proceeds from intervention by the manipulating countries (Gagnon and Hufbauer 2011).

These approaches have the advantage of covering both sides of the trade balance simultaneously and thus do not introduce the distortion caused by trade measures that focus only on the exports of currency manipulators (discussed below). They would be carried out largely by the same officials who handle the currency issues, avoiding the need for cooper-

16. This includes a guess that Singapore is intervening at an annual rate of \$40 billion based on the IMF projection of its current account for 2012 and the average ratio of intervention to current account in Singapore since 2000.

ation with trade policy officials and their international institution (the WTO). These approaches also are indisputably legal under international law. For these reasons, we believe that the macroeconomic options are preferable to the trade policy options, although a couple of the trade policy options may be complementary as discussed below.

### Countervailing Currency Intervention

CCI is a simple concept. The European Central Bank, for example, could buy as many Swiss francs against euros as the Swiss National Bank (SNB) had sold against euros. This should neutralize any net impact on the exchange rate between the two currencies. Execution of such a policy, or perhaps even an indication that it would be executed, should deter the SNB from attempting to influence the rate itself. Any actual intervention would be sterilized by the countervailing central bank to avoid disrupting its monetary policy.

Retaliation of this type against currency manipulation is surely superior to the usual alternative of emulation. Countries in Asia, like Malaysia and Thailand, feel compelled to intervene along with China to avoid losing competitive position to

**The United States has two major macroeconomic policy options to achieve the needed realignment if voluntary action proves inadequate. The first is countervailing currency intervention. The second is restrictions on, or taxation of, investment of the proceeds from intervention by the manipulating countries.**

it. Countries elsewhere, like Brazil, that are adversely affected by China's competitive undervaluation also feel compelled to intervene to keep their currencies from rising (and to take other defensive actions, including capital inflow controls and new import restrictions). It would be far better for these countries, and for the system as a whole, if the initial currency manipulation were instead countered directly. **Thus, instead of emulating China by buying dollars, Brazil and Malaysia should counter China by buying renminbi.**<sup>17</sup>

17. Japan has already undertaken a form of CCI by buying Chinese bonds in response to Chinese reserve diversification into Japanese bonds that had the effect of pushing up the value of the yen.

Countervailing import duties (CVDs) are a standard tool of trade policy for countering export subsidies. During the Tokyo Round in the General Agreement on Tariffs and Trade (GATT), a Code on Subsidies and Countervailing Measures (the SCM) was negotiated to provide agreed multilateral rules for the implementation of such policies. It would be desirable to add a similar amendment to the IMF Articles of Agreement that would authorize countries to carry out CCI under clear procedural safeguards like the WTO rules on CVDs. Even without such an amendment, implementation of CCI by the United States could be multilateralized by inviting countries against which it countervailed to charge it with competitive undervaluation under the existing Articles if they thought they could make that case—a charge that, as indicated above, would be highly unlikely to stick.

CCI would be a parallel instrument to CVDs on the macroeconomic side. It raises three practical questions. **First, are there enough assets denominated in the currency of the manipulating country to enable the aggrieved country to fully offset the manipulation? The answer is unambiguously positive in the case of manipulators that have large and open financial markets of their own, which includes all the countries on our target list except China.**

China forbids foreign purchases of its domestic bonds and foreign deposits in its banks except by special arrangements. It has recently allowed the issuance of renminbi bonds in Hong Kong that may be purchased by non-Chinese residents (the dim sum market) and is seeking to increase international utilization of its currency. But this issuance is tightly controlled by the government, and the market is still many times smaller than the size of China's foreign exchange reserves. CCI would thus have limited impact in directly influencing China's currency manipulation (although such action by the United States and hopefully the euro area could have a powerful signaling and psychological effect). **As we discuss below, for China and other potential target countries with closed or undersized financial markets (such as the oil exporters of the Gulf), the United States should therefore also restrict or tax their purchases of dollar assets, which are an inherent result of their currency intervention.**

Second, would the aggrieved countries be taking an unacceptable financial risk by buying currencies of the manipulators? By definition, they would be buying currencies they thought were substantially undervalued so should make a hefty profit. They could of course miscalculate, or the situations of the current manipulator countries could change over time, but this would not seem to be a major risk.<sup>18</sup>

18. The history of the United States itself on this issue is instructive. During the 1960s, the final decade of the original Bretton Woods system of fixed



Third, would there be any adverse impact on the US budget because dollars would be spent to buy the foreign currencies targeted by the CCI? The purchases would presumably be shared between the Treasury and the Federal Reserve, as has traditionally been the case with currency intervention. The former would use the Exchange Stabilization Fund (ESF), whose authority would clearly permit it to conduct CCI (as it was permitted to insure money market funds to help counter the financial crisis in 2008!) and which can swap the foreign exchange it acquires to the Fed without limit to acquire the dollars to finance further operations (Henning 2008). The Fed itself is of course not subject to budget limits. In the event that the Fed refused to cooperate, CCI could proceed to a limited extent with the existing ESF, but any large-scale operation would require congressional action to authorize Treasury borrowing for the ESF. Such borrowing should be placed off-budget and not counted toward the federal debt ceiling, as it would be matched by an equal volume of assets and would in fact be expected to generate a future profit.

Large-scale CCI by the United States would shatter the longstanding conventional view of the dollar as the unique and passive “nth currency” in the global system. However, it need not reduce the attractiveness of the dollar for international invoicing and investing as long as the Federal Reserve maintained the paramount importance of pursuing domestic price stability. Indeed, CCI would be only a logical and systematic extension of actions that the United States has taken for many decades when it concluded that dollar overvaluation had become too costly for its economy. It broke the link with gold and applied an import surcharge in 1971. It pushed very hard, and ultimately successfully, to get its chief allies to adopt the locomotive strategy at the Bonn summit of 1978. It initiated the Plaza Agreement in 1985. It pushed Japan hard throughout the early 1990s, and China even harder over the past decade, to permit substantial appreciation of their currencies. It bought yen itself in 1998 and euros in 2000 when it was clear that these currencies had become too weak.

Adoption of CCI would be a further, and indeed more orderly, step in that direction. To allay concerns that the United States was going unilateral or seeking to eliminate

the international role of the dollar precipitously, however, it should simultaneously propose an amendment to the Articles of Agreement of the IMF that would explicitly legalize CCI and place it under institutional supervision. It should not wait for that amendment to be adopted, however, before deploying the instrument as needed itself.

### *Taxes or Restrictions on Intervention Proceeds*

The second macroeconomic option is to restrict or to tax purchases of US assets by currency manipulators. This tool could be used against any manipulator and it would avoid the risk engendered by CCI of holding sovereign bonds and other assets in countries with uncertain future policy regimes. It would be particularly useful against manipulators with closed or undersized financial markets such as China.

Under the International Emergency Economic Powers Act the president has broad authority to restrict foreign ownership of US assets in cases of “unusual and extraordinary threat, which has its source in whole or substantial part outside the United States, to the... economy of the United States.” These powers have been used to good effect against terrorist organizations and the governments that sponsor them, such as Iran. US and foreign financial institutions are required to assist in their enforcement by ensuring that targeted governments and institutions do not hide behind third parties.

It is possible to use these powers either in a blanket way or selectively. As an initial step against currency manipulators, a selective approach would be best. For example, the government and government-controlled institutions in the manipulator country could be forbidden to buy US debt instruments but permitted to buy equities including foreign direct investment. The goal would be to skew the purchases toward those assets that help the US economy grow faster. The list of forbidden assets and affected persons and institutions in the manipulator country could be widened over time if the sanctions are not viewed as having the desired effect.

A variant of this approach would be to remove the exemption on withholding taxes for US financial assets owned by the governments or government-controlled entities of currency manipulators (Gagnon and Hufbauer 2011). Or a transactions tax could be imposed on new purchases of US assets by currency manipulators, as is done on purchases of certain assets in Brazil by all foreign residents. For countries with which the United States has a tax treaty, including China, advance notice would have to be given and Congress would have to change some elements of the tax code. These requirements make these policy options less flexible but they would still send a powerful signal to currency manipulators.

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exchange rates (adjustable pegs) when the United States was desperately trying to allay foreign fears of dollar devaluation, it placed large volumes of “Roosa bonds” (named after the Under Secretary of the Treasury at that time) through which it convinced surplus countries not to convert their dollars into gold by guaranteeing the value of those dollars in terms of the holders’ own currencies. After the substantial dollar devaluations of the 1970s, it eventually took huge losses on the redemption of those bonds. Had it sought dollar devaluation by buying those currencies, as would be the case with CCI today, rather than resisting it by taking on huge liabilities in them, it would have made large profits instead as would likely be the case now.



Some may argue that it is not in the interest of the US government to restrict or to tax purchases of US bonds as that could raise the market-clearing rate of interest on them, perhaps in a disruptive manner. However, this argument ignores the role of the Federal Reserve in determining the overall level of interest rates that is needed to keep the US economy growing steadily with low inflation. The primary effect of restricting or taxing foreign purchases of US assets is to reduce the value of the dollar in terms of foreign currency—precisely what is desired. Should the boost to the US economy from a cheaper dollar threaten to raise inflation above its desired rate, the Federal Reserve would need to raise interest rates but this would be an encouraging outcome. Of course, it is possible that the Federal Reserve will not calibrate its response appropriately but this risk is present in Fed responses to all economic developments and is not a reason to forego important policy objectives.

Currency manipulation *is* the purchase of another country's financial assets. Any action that succeeds in stopping currency manipulation will reduce foreign government purchases of US financial assets, including US Treasury securities. Indeed, for several months from mid-2011 through early 2012, China ceased entirely its net purchases of US Treasury securities. No one noticed.

### Trade Policy Options

As indicated above, the macroeconomic policy options for responding to currency manipulation, whether voluntary or coerced, are nondistortionary, consistent with international law, and at least as likely to be effective as the trade policy options. However, those strategies may be deemed undesirable for other reasons, and trade policy alternatives thus need to be considered.

The logical linkage between trade policy and currency issues is very powerful. On the one hand, there has been a conscious effort throughout the postwar period to maintain a clear separation between trade and current account balances, which reflect macroeconomic forces such as national saving-investment relationships, and trade policy, which is quintessentially microeconomic and primarily distributional among sectors in normal times. That strategy has sought to avoid the inappropriate use of protectionist trade policies to try to remedy trade imbalances during periods of high unemployment, as occurred in the 1930s. Macroeconomic policies, on the other hand, particularly fiscal policies, can have important spillovers across countries. A country seeking to stimulate its economy with looser fiscal policy will see some of the extra demand leak to its trading partners. In a period of generalized deficiency of demand, one country's fiscal deficit benefits all countries. Monetary policy, like the Federal Reserve's uncon-

ventional quantitative easing, has an ambiguous effect. Lower short-term or long-term interest rates tend to push down the exchange rate and boost exports, subtracting demand from trading partners. But lower interest rates also boost domestic absorption and imports, adding demand to trading partners. According to a recent study (IMF 2012b) the spillovers from US quantitative easing to the rest of the world, including to developing economies, have been small but positive on balance.

Currency manipulation, however, does not add to global economic activity—it is a zero-sum game. Swapping domestic for foreign currency and thus pushing down the value of one's currency diverts demand away from trading partners without adding to total demand. Currency manipulation with a floating exchange rate has the same economic effects as imposing an import tariff and an export subsidy with a fixed exchange rate. For this reason, it is entirely appropriate to link currency manipulation and trade policy. Former Federal Reserve Board chairman Paul Volcker has indicated in informal speeches that “Trade flows are affected more by ten minutes of movement in the currency markets than by ten years of (even successful) negotiations in Geneva.”

Four trade policy approaches could be deployed in response to currency manipulation:

- CVDs against imports subsidized by competitively undervalued exchange rates;<sup>19</sup>
- surcharges levied against all imports from the target countries;
- an Article XV case against the offending countries in the WTO; and
- inclusion of provisions in future trade agreements, multilateral or regional or bilateral, that would deny the benefits of the agreement to members who resorted to currency manipulation.

Quantitatively, these options range from very modest (CVDs on a case-by-case basis) to potentially quite substantial (across-the-board import surcharges, unilaterally or after successful prosecution of a WTO case). Procedurally, they range from reactive (CVDs *and* import surcharges) to preventative (chapters in new trade compacts). Legally, they can be implemented unilaterally with full recognition that they are incompatible with international law (import surcharges against specific currency violators); implemented unilaterally

19. Antidumping duties could be applied in this way as well. CVDs are more logically linked to currency manipulation because the latter clearly acts as an economic subsidy, though Hufbauer and Brunel (2008) conclude that “the legal arguments against AD penalties are weaker than the arguments against other trade penalties we have reviewed.”

but on the view that they are justifiable under WTO rules (CVDs under the SCM); implemented only after legality is determined under the current rules (an Article XV case); or positioned for possible future implementation by writing new international rules (in new trade agreements or by amending the present WTO provisions). Combinations of all these alternative approaches are of course possible at any single point in time or, especially, over longer periods.

### Countervailing Duties

In economic terms, exchange rates that are undervalued clearly render exports artificially cheaper and imports artificially more costly. Thus they represent a subsidy to exporters and firms that compete with imports. When rates are undervalued due to government intervention, rather than market forces, counterintervention is clearly justified.

Unfortunately, legal structures do not always accurately reflect economic principles. This is true at both the national and international levels. The US Commerce Department, for example, currently takes the view that its authorizing statute does not permit it to treat currency misalignments, even if clearly due to manipulation, as subsidies subject to CVDs. The WTO Agreement on Subsidies and Countervailing Measures (the SCM agreement) likewise contains a series of criteria that, while they have never been tested for currency misalignments, might or (more likely according to Hufbauer, Wong, and Sheth 2006) might not pass muster.

Both legal structures could of course be tested and might prove more responsive than conventionally believed. In addition, the United States could fundamentally change its domestic situation. The president or a new secretary of commerce could simply reinterpret current law and authorize CVDs against currency manipulation, defending that revised interpretation in both domestic and international court (the WTO) against the inevitable challenges. More definitively, Congress could amend the CVD law to specifically authorize such CVDs; this was the central thrust of the Ryan-Hunter bill, which passed the House of Representatives in 2010, and is similarly included in a bill that passed the Senate (though in a different Congress, so no legislation resulted) in 2011. At the international level, a ruling that the SCM did not cover these cases, when the economics are so clear, should lead to its amendment so that it could play an orderly systemic role in the future.

CVDs offer sector-specific or microeconomic response to the across-the-board macroeconomic problem of currency manipulation. All CVDs now in force in the United States cover only \$7 billion of imports, a tiny share of total trade. Hence they are less than an ideal solution.

However, CVDs would offer a remedy at least to those industries and firms that were affected most adversely by manipulation (and could prove that they were injured as a result). Their adoption, hopefully by other importing countries as well as the United States, would also send a signal to the manipulators that their manipulation would no longer be costless to their own economies and their relations with key trading partners. They should constitute one part of a graduated policy package that sought to persuade the manipulators to adopt the voluntary approach (which would then of course not be quite so voluntary).

### Import Surcharges

A much bigger trade response would be the imposition of across-the-board import surcharges, covering all or most imports, against all countries deemed to be currency manipulators. Such measures would still apply to only half the trade account, having no direct bearing on US exports to those countries or to US exports to third countries that are adversely affected by the currency manipulation, but the surcharge could be levied at twice (or more) the amount of the deemed undervaluation to counter that omission.<sup>20</sup>

The United States applied a surcharge of 10 percent to its imports for four months in 1971. Secretary of the Treasury John Connally reportedly wanted to leave the surcharge in place for at least another year, through the elections of 1972, because it was so popular domestically, but its main use turned out to be to prod the Europeans and Japanese to agree to the initial postwar devaluation of the dollar. Such an aggressive measure would presumably have the similar purpose today of inducing the currency manipulators to cease those practices.

Import surcharges are legal under the international rules of the WTO only for a country that has a major balance-of-payments problem as certified by the IMF. They must be applied equally against all of that country's trading partners on the cardinal (if often abused) nondiscrimination principle of the global trading system. There is no provision for applying a surcharge against an individual country or a group of countries à la manipulators. The US surcharge of 1971 was clearly illegal, though the cases against it had barely been brought when the restriction was negotiated away as part of the ultimate currency agreement; the US initiative at that time, however, was considerably closer to meeting the international rule than would be a surcharge against targeted manipulators today. Targeted coun-

20. It is this asymmetry between effects on exports and imports that introduces the most important economic distortion of trade policy options as compared with the macroeconomic options.

tries would be within their rights to retaliate against the United States (and any other surcharge appliers) and at least some, including China if hit, could be expected to do so. This option could thus escalate both the trade wars rhetoric and reality and could be especially risky as long as the world economy and international economic cooperation remain fragile as at present.

### A WTO Case

Even an import surcharge might become legal, however, if the United States and its allies could demonstrate that currency manipulators were violating their obligations under Article XV (4) of the WTO to “not, by exchange action, frustrate the intent of the provisions of the Agreement.” The coalition should seize the moral high ground on the issue by taking manipulators to the WTO and awaiting its decision before applying any retaliatory across-the-board trade actions.

At a minimum, however, such a momentous decision for the global economic system would probably take several years to reach. More importantly, the language and legislative history of the WTO are so festooned with limitations that a case would be very hard to win, even in a blatant case like China’s manipulation at the height of its intervention (\$1.5 billion daily) and current account surpluses (10 percent of GDP) a few years ago.

There are at least four hurdles. First, the WTO would presumably ask the IMF whether the accused countries were in fact manipulating their currencies (and thus “frustrating the intent of the Agreement”), and the highly politicized Executive Board of the IMF might not be willing to vote the needed indictment even if management and staff agreed. Second, the WTO itself contains no obligation for member countries to pursue balanced (even multilateral) trade. Third, the General Agreement on Trade in Services (GATS) contains no language parallel to that in the original GATT so any decisions would relate solely to trade in goods, a patently foolish distinction. Fourth, Article XV(4) requires the exchange action to frustrate the intent of provisions of the Agreement but no such specifics have been found. These problems are sufficiently severe that our colleague Gary Hufbauer, with Yee Wong and Ketki Sheth, concluded in 2006 that “The question is not whether the United States would lose (the case) but whether its arguments would be summarily dismissed.” Some observers (and some high-level US officials) believe this would produce the worst of all worlds, where US defeat would be widely interpreted as providing international legal justification for the actions of the manipulators.

We nevertheless believe that the status quo produces a gaping hole at the heart of the global economic order, that the bifurcation between the monetary and trading systems must be overcome, that the economic costs of inaction on this issue are extremely high during a prolonged period of slow growth

and high unemployment such as the present and possibly the foreseeable future, and that multilateral remedies are highly preferable to unilateral actions. Hence we recommend that the United States and its allies bring WTO cases against the most egregious manipulators as part of a broader action program, all of whose other components would be at least arguably compatible with the existing international rules. If they won the case, it would strengthen their hands enormously in prosecuting all their other remedies and would, in a second WTO step to determine permissible remedial action, add to the arsenal of policy instruments available to them. If they lost, it would dramatize the need for reform of the WTO rules themselves and thus almost instantaneously place the issue on the agenda for either a future round or a stand-alone negotiation. Whatever the outcome, the coalition would have made every effort to use the existing rules and institutions and thus demonstrated its fealty to the international system.

### Future Trade Agreements

A number of members of Congress have proposed that all future US trade agreements include clauses that would bar their participants from currency manipulation. Twenty-three senators wrote to President Obama in December 2012 to insist that such a chapter be included in the pending Trans-Pacific Partnership (TPP). The penalty for violating the proscription would be loss of the benefits conferred by the agreement on that country. At least one US industry (automobiles) and a few others sought to include such a chapter in the final stages of the Korea–United States Free Trade Agreement, and some have indicated that they will oppose congressional approval of the TPP unless it includes such a provision in light of the current or prospective participation in that compact of such past and present manipulators as Malaysia, Singapore, and potentially Japan, Korea, and ultimately even China.

There are, of course, practical problems in introducing this new element to trade negotiations. Wide-ranging trade agreements, especially those that aim for high-quality standards and substantial liberalization as the United States traditionally seeks, are already difficult. The failure of the Doha Round in the WTO, despite almost ten years of effort, is testimony to that conclusion. So is the prolongation and difficulty in completing the TPP despite the fact that most of its present participants already have bilateral free trade agreements (FTAs) with each other (Schott, Kotschwar, and Muir 2013).

Adding a currency dimension would complicate matters considerably further. This is partly for the institutional reasons described before as finance ministers (and perhaps some central bankers, especially in the case of the euro area) would have to handle that component of the talks. Such coordination has

occurred on occasion in the past, however, as when the United States insisted on including provisions on capital controls in some of its FTAs and when financial services were liberalized in one of the WTO sectoral agreements after the completion of the Uruguay Round. In addition, ways would have to be found to institutionalize the role of the IMF in any multilateral agreement that required objective assessment of currency manipulation as an action trigger.

The problem of manipulation as revealed over the past decade is sufficiently severe, however, that we believe that Congress should include this issue as one of the negotiating objectives for future US trade agreements when it next provides Trade Promotion Authority (fast track) for such purposes. Some countries will resist but that is not an unusual occurrence in response to congressional mandates to US negotiators. As with labor and environmental agreements, which were widely viewed as impossible to negotiate for many years before finally starting to find their way into US (and now other) trade pacts, they might eventually command growing support and thus help fill the systemic vacuum. The logical place to start is the proposed US-EU trade agreement, in which both parties should find common cause in renouncing currency manipulation.

### Summing Up

In sum, trade policy can play a useful supportive role in fashioning a strategy to address both the immediate economic and structural systemic dimensions of the currency manipulation problem. The standard tool of CVDs should be applied against this type of subsidy as well as the more traditional examples. The United States and its allies should take manipulators to the WTO under its Article XV and, if those cases fail, seek to negotiate reforms in the rule that can provide more effective multilateral redress in the future. Efforts should be made to include the manipulation issue in future trade agreements at all levels (multilateral, regional, and bilateral). Pursuit of all these avenues would have the side effect of breaking down the institutional barriers between macroeconomic and trade policies, which would be beneficial in dealing with future issues when the two need to be related more effectively. Import surcharges should be eschewed, due to their flagrant violation of the international rules of the game, unless authorized by the WTO under a successful appeal to Article XV.

## CONCLUSION

The initiatives proposed in this Policy Brief are ambitious and far-reaching. By finally redressing the imbalance between

deficit and surplus countries and forging effective linkages between monetary and trade policy, after almost 70 years of failure to do so, they could lead to the most fundamental changes in the international monetary system since the widespread adoption of flexible exchange rates in the 1970s.

This would require a major effort by the countries favoring reform, especially the United States. The initiative would have to be accorded very high priority among the overall economic policy and foreign policy objectives of those countries. Fortunately, such prioritization is justified by the very high costs of the status quo and the very high payoff from effective promulgation of the proposed strategy.

From the standpoint of the United States, four major questions would have to be addressed and answered affirmatively to justify undertaking the proposed program:

- Is it ready to take substantial responsibility itself for correction of the international imbalances by adopting important complementary domestic policy actions?
- Is it prepared to accept the risks to its overall foreign policy, including the “pivot to Asia,” that could result from confronting some of the world’s key economies, including China, to resolve the manipulation problem?
- In particular, is it ready to take the risk that the manipulating countries that hold large dollar reserves, especially China but several of the other target countries as well, would respond by selling dollars, i.e., can the United States afford to take on its banker(s)?
- Is it ready to acknowledge more broadly that the reserve currency role of the dollar is no longer an unmitigated blessing, and perhaps has even become a net cost for the United States? Is it thus prepared to accept a steady and even accelerated further slide in that role if the markets choose to enhance the positions of the renminbi and perhaps other currencies?

This Policy Brief is not the place to elaborate on what the United States needs to do to play its full and fair role in rebalancing the global economy as called for repeatedly by the G-20 and by the United States itself. The budget deficit will obviously have to be trimmed substantially over the coming years, hopefully at a pace that will avoid throwing the economy into one or more recessions. The new Dodd-Frank regulations on financial institutions will need to be enforced aggressively and comprehensively. The paramount goal of price stability for monetary policy will need to be reaffirmed in order to maintain confidence in the US financial system and the dollar as a store of value. Other structural measures would



be helpful, including further improvement of the education system, sharply limiting the rise of health care costs, making the tax system more growth friendly, and enhancing incentives for R&D spending and other innovation supports. The rest of the world will have to be convinced that the United States is committed to such a course of national policy if it is to be expected to play its own essential part in the overall strategy.

With such domestic reforms, the strategy proposed here would add an important and highly constructive international dimension to overall US economic and foreign policy (as proposed by Zoellick 2012). The United States in fact needs an external initiative of this type, in light of the domestic policy constraints cited at the outset of the Policy Brief and the very significant economic payoff that is available, and we believe this is the best way to fashion it. The program should thus be adopted, and presented, as an integral element of a comprehensive US approach to the globalized economy of the 21st century.

The United States must also accept that, even if it is successful in attracting a number of allies to its cause, it will be the inevitable and essential leader of the effort. Hence it could jeopardize some of its other economic policy goals, and indeed broader foreign policy goals, vis-à-vis several key global players.

For example, the United States will continue to seek help from China on other key economic issues, such as trade negotiations and climate change, as well as central foreign policy issues such as North Korea and Iran. Concerns over such tradeoffs, as well as tactical judgments concerning the efficacy of public versus private diplomacy, have led to US hesitation in recent years to confront China over the currency issue and especially to label it a manipulator. Now that the United States is trying to “pivot to Asia,” it would have to conclude that a systematic approach to the currency issue, that included several other Asians along with China, would be more constructive than the current ad hoc approach (and consequent risk that the problem will accelerate again). The United States would basically have to decide that the payoff from successfully resolving this issue, both in terms of short-run economic recovery and long-term systemic stability, was worth taking those risks.

A specific risk is that China and other targeted countries, which by definition are large holders of foreign exchange, might retaliate by selling dollars. That would amount to a capitulation to US demands, however, and indeed a form of reverse currency manipulation conducted out of spite because it would drive up the value of their own currencies. They would be shooting themselves in the foot for a second reason as well because such action would drive down the value of their substantial remaining dollar assets. It is of course always possible that irrational decisions would be made in such

an environment, or that the desire to retaliate would overwhelm all other policy calculations by the manipulator, but this should be one of the least concerns of the United States because it has the capacity, through the Federal Reserve, to set its own interest rates at the levels required to maintain steady growth and low inflation.

With respect to the international role of the dollar, it is now clear that the United States pays a considerable price and might be better off without it. The dollar's role makes it easier for other countries to set the exchange rate of the US currency and more difficult for the United States itself to do so. Moreover, the “deficits without tears” that other countries have jealously criticized for so long have turned out to be a poisoned chalice for the United States itself. By depressing demand for US output, currency manipulation has simultaneously driven the United States to larger fiscal deficits and made the financing of those deficits easier. The net result is an unsustainable path of national and external debt.

The dollar will clearly remain the key global currency for some time to come even if the United States decided that it wanted to eliminate it immediately. Global monetary evolution is gradual, if not glacial, even when cataclysmic changes occur in underlying economies. Sterling persisted as a global currency for half a century beyond Great Britain's economic dominance despite the dramatic weakening of its economy via two world wars and the Great Depression. Precipitous change is highly unlikely.

But the international market share of the dollar has been declining gradually throughout the era of floating exchange rates, befitting the increasing multipolarization of the world economy. Its share has slid by about 10 percentage points over the past decade. Some argue that the Chinese renminbi will attain a dominant position within the next decade or so (Subramanian 2011), but its rise is more likely to be gradual unless US economic performance and/or policy were to relapse enormously. The United States should thus gracefully accept the steady, and most likely continued slow, decline of the dollar's international role and react with equanimity when the inevitable day arrives that it will no longer be number one on one or another of the relevant criteria.

The point here is simply that the United States (and its allies) should not be reluctant to push for substantial currency realignments that would produce an implied further depreciation of the dollar. From the standpoint of the global role of the currency, it would in fact be far superior to do so by insisting on an end to currency manipulation that produced artificially undervalued currencies, and thus an artificially overvalued dollar, than by overtly pushing the dollar down through explicit actions by the United States itself. Even CCI, under



which the US authorities would sell their own currency (as they have done many times in the past), would be accurately characterized and widely perceived as a defensive reaction to other countries' currency manipulation rather than a cold-blooded initiative to weaken the dollar.

These perceptions are important because the United States has huge systemic interests in avoiding any impression that it is pursuing a beggar-thy-neighbor policy of competitive depreciation itself. It is also important for domestic political reasons because numerous US politicians have found that it is decidedly unpopular to talk down your own currency (though Richard Nixon and John Connally made it a virtue in 1971–72). Wrapping up this strategy with a strong agenda for new sources of growth in surplus, and especially developing, economies would help to avoid such harmful and erroneous perceptions.

In contemplating any major initiative on this delicate and sensitive set of issues, the United States and its allies must of course take full cognizance of the state of the contemporary world economy. Its outlook remains fragile at the present time and any new source of instability, particularly that might roil markets, should be undertaken only with great care. There would inevitably be charges of currency wars and trade wars against the United States and its allies. The basic objective of the exercise, however, would be to strengthen the relatively weak economies (especially the United States and the euro area), by strengthening their external positions, while most of the manipulators could and should offset the corresponding reductions in their large surpluses by increasing domestic demand. The net effect of the strategy, as advocated by the G-20 from the onset of the crisis, would be to increase global demand and thus aggregate growth. It could thus in fact strengthen markets and confidence in the global economic prospects.

We believe that the proposed strategy is highly desirable both for the United States and for the global economic order as a whole. It is the best way to add an effective international dimension to the country's economy recovery program. It is the best way to resolve a systemic problem that has plagued the United States, and indeed the entire Bretton Woods regime, for more than half a century. We believe it should be adopted soon, forcefully, and with full conviction by the United States and the rest of the world.

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