

# Central banks and global imbalances

---

Vincent Reinhart,  
*Federal Reserve Board*<sup>1</sup>

I APPRECIATE THIS OPPORTUNITY TO PARTICIPATE in in this distinguished conference on 150<sup>th</sup> the anniversary of the renaming of the Bank of Spain. The topic of this panel – global imbalances – is a particularly apt subject to talk about in the center of the empire that experienced the first and probably largest capital inflow problem in the last millennium. Absorbing the inflows of gold and silver in the sixteenth and seventeenth centuries created difficult sectoral adjustments and had even more complicated consequences for the political economy. Global adjustments – whether species flows, reparation payments, or the unwinding of prior imbalances – involve the transfer of real resources across national borders that has implications for relative prices, incomes, and wealth over time.

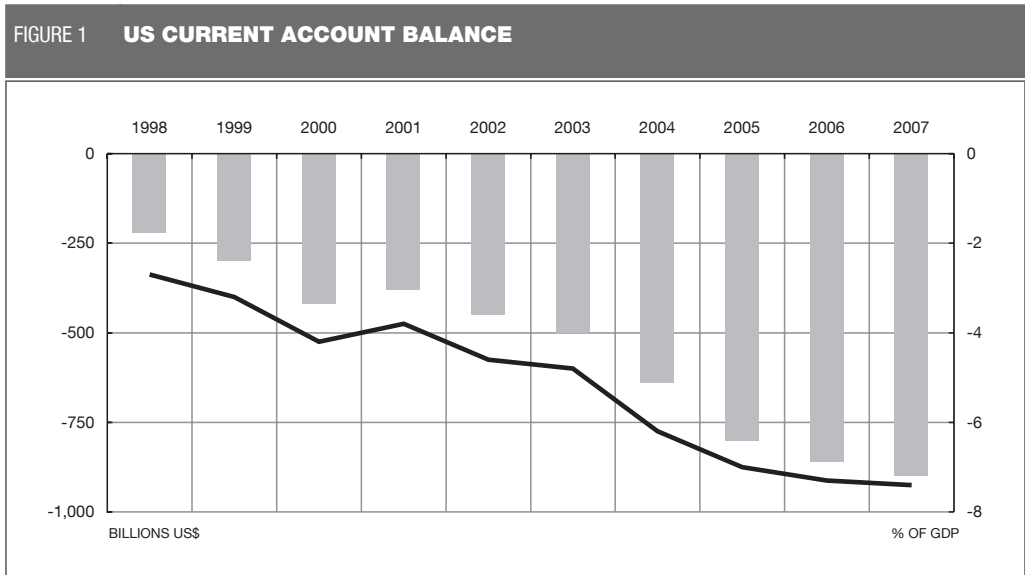
By the way, the views I just expressed about the Golden Age of Spanish Exploration are my own and are not necessarily shared by anyone else in the Federal Reserve System. This also holds true for everything else said today.

## Some Background

It does not take many numbers for the enormity of the challenge confronting the global economy to become evident as our moderator clearly expressed. According to projections in the most recent World Economic Outlook, the U.S. current account deficit will extend its slide of the past decade and is poised to run at around \$900 billion dollars next year, or 6½ percent of nominal GDP (Figure 1). No other sizable country or region is close to that outcome (Figure 2).

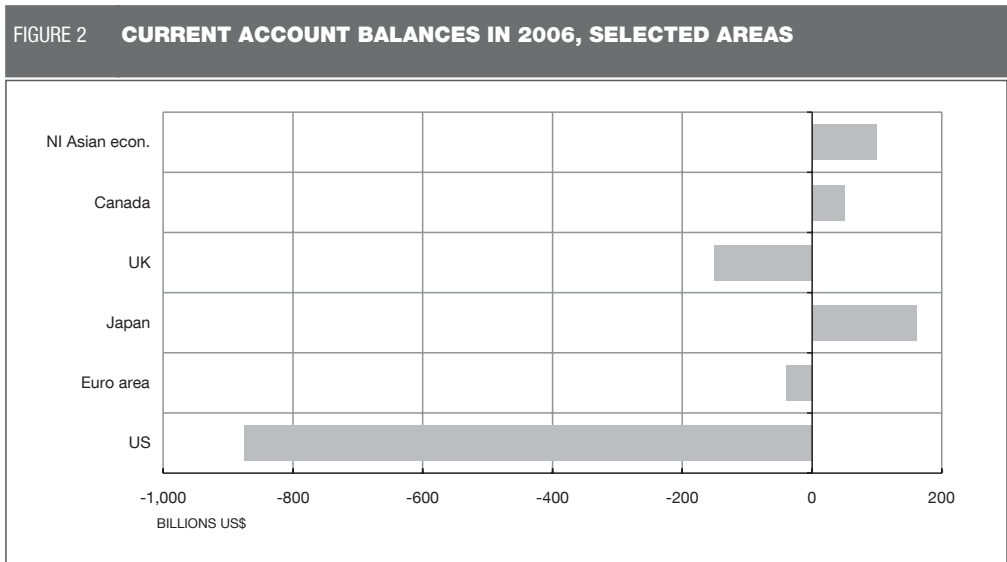
---

<sup>1</sup> The views expressed are my own and are not necessarily shared by anyone else in the Federal Reserve System.



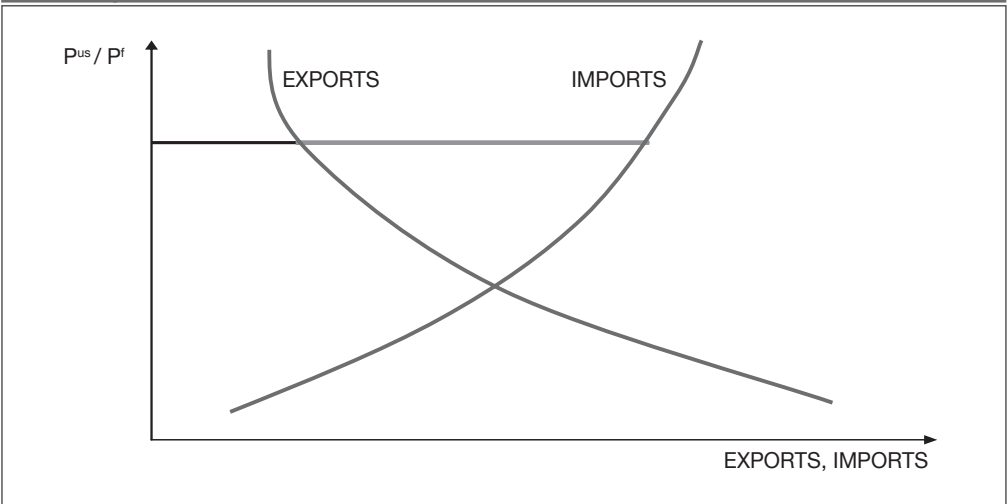
SOURCE: IMF, World Economic Outlook.

There have been many sophisticated attempts to put these imbalances into perspective, seen for example in the models of Obstfeld and Rogoff (2005) and Blanchard, Giavazzi and Sa (2005) in a recent Brookings volume. But at the risk of simplifying to the point of simplemindedness, I believe that the key points for understanding the current pattern of global imbalances are clear in the simple framework by which most of us were first exposed to the notion of external surpluses



SOURCE: IMF, World Economic Outlook.

**FIGURE 3 THE DETERMINATION OF EXPORTS AND IMPORTS**



and deficits. Emboldened by Alan Blinder’s ability to find sixteen questions pertinent to monetary policy, I will make six observations informed by this simple framework about the adjustment of global imbalances (Blinder, this volume). I will close by focusing in a bit more on some policy implications.

Although I do not have the yellowed document to prove it, in my first exposure to trade theory, I was taught that a country ran a trade deficit because relative prices encouraged the greater import of goods and services and discouraged their export (as in Figure 3). The horizontal difference between the demand curves for exports and imports represents the need to borrow to fund the relative excess. The analysis was somewhat more subtle by identifying five key margins relevant to understanding how any particular excess could evolve over time (Table 1).

The first margin is what I put along the vertical axis of the diagram – the relative price of traded goods produced domestically versus internationally – which is

**TABLE 1 KEY MARGINS INFLUENCING THE DETERMINATION OF EXPORTS AND IMPORTS**

The relative price of traded goods and services produced at home versus those produce abroad;
The relative price of traded goods and services produced at home versus nontraded ones;
Home versus foreign income;
Home versus foreign wealth; and
The dollar share of the foreign portfolio.

captured by movements along both curves. But the positions of these two curves may also depend on the prices of traded goods and services versus those that are not traded. For example, if nontraded services became particularly expensive, demand may shift some toward imports and import competing goods. Third and fourth, respectively, are the scale variables influencing demand at home and abroad – home versus foreign income and home versus foreign wealth – that also affect the position of the curves. The fifth margin does not directly affect the position of either curve but is critical to determining how those other four margins are set at a point in time and evolve over time. Namely, what is the appetite of global investors to add further to their dollar portfolios to fund the distance between those two curves at a given relative price?

We've heard one set of reasons from David Folkerts-Landau why that appetite might be large and growing so as not to force adjustment in those two curves any time soon. But another, related explanation has also been popular. The dollar share of the global portfolio may expand because either global economic growth has tilted to a region under diversified in dollar-denominated assets (as suggested by Michael Doolley, David Folkerts-Landau, and Peter Garber, 2005) or because financial globalization has been reducing home bias over time (as suggested by Alan Greenspan, 2005).

## Six Observations

This leads to two observations on the expansion of the global portfolio. First, we should remember that Bretton Woods I was much less stable than commonly believed. Reinhart and Rogoff (2004) show that there was a wide array of multiple currency regimes, as well as black-market trading, that put the exchange rates that mattered for trade and asset holding at values quite different from any official peg. And the differences were changeable. Moreover, inflation performance was diverse, implying large divergences in real effective exchange rates. To the extent that those mechanisms are less available today (in part because of the leveling effects of the globalization of financial markets), more pressure may be exerted directly on the spot exchange rate, making the maintenance of a peg more difficult. Hence, I wouldn't bet that Bretton Woods II lasts as long as Bretton Woods I.

My second observation is that it is the *relative* change in home bias that matters for the change in the net dollar share in the global portfolio. But why would financial globalization act unequally on U.S. versus foreign investors? One possible answer sounds like a form of American triumphalism, in that our markets were integrated first and now others are catching up. But that seems inconsistent with the observation that the extent of home bias in U.S. portfolios still seems large. Another possible answer is that we've got the wrong model of portfolio determination. Rather than the outcome of investors smoothing consumption, we may be seeing

an increased demand for collateral that is both protected by a well-established rule of law and that performs well at a time of financial stress. Creating those instruments is something that the United States is very good at, as witnessed by the widespread acceptance of our currency and government securities.

Recognize how this argument turns the usual concerns about a disorderly adjustment on their head. In this world, elevated volatility and financial market strains associated with a potential downdraft in the foreign exchange value of the dollar would actually strengthen the demand for the dollar assets that serve as good collateral at a time of stress. I'm not suggesting that such flight-to-safety demands would roll back all the expectational effects that might push up yields were the exchange rate to slide sharply, but they would seem to be a blunting force not captured in traditional models, and ones that would work on different asset classes differently.

While on the subject of the role of assets, I believe, as my third observation, that an important role for assets in shaping behavior may have an ambiguous effect on the nature of the adjustment of imbalances. We've seen one side of that: There has been a recent recognition on the effect of exchange rate changes on the value of the gross portfolio (as in Lane and Milesi-Ferretti, 2004, and Gournichas and Rey, 2006). Both U.S. and foreign investors hold dollar-denominated obligations, so that dollar depreciation lowers net U.S. debt. However, U.S. net debt is also a part of foreign wealth. Thus, dollar depreciation raises U.S. net wealth and lowers foreign net wealth. If wealth and income effects are important in determining export and import demands, there is an offsetting drag to any direct benefit of lower indebtedness (as in the shifts depicted in Figure 4). The pressure of this offset is

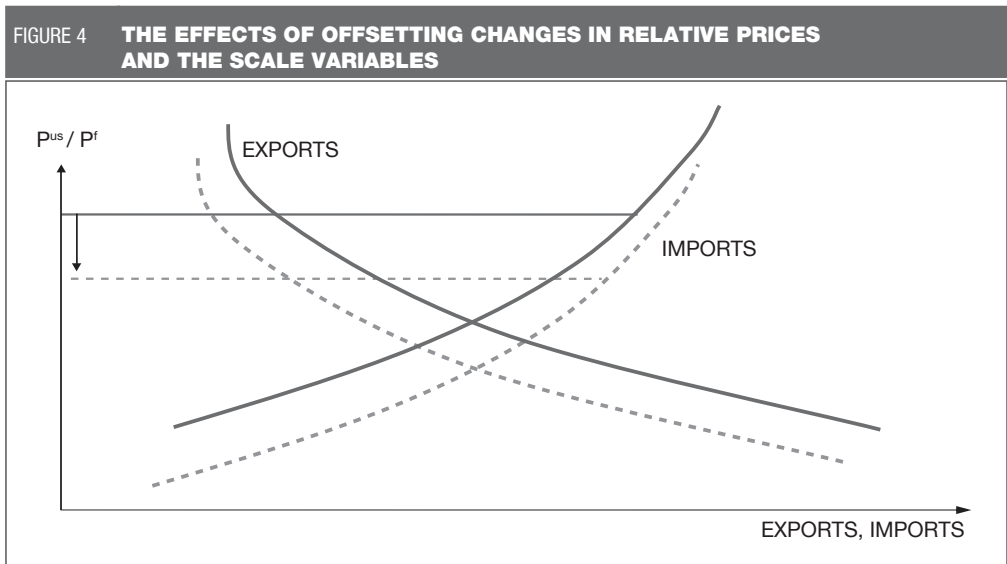
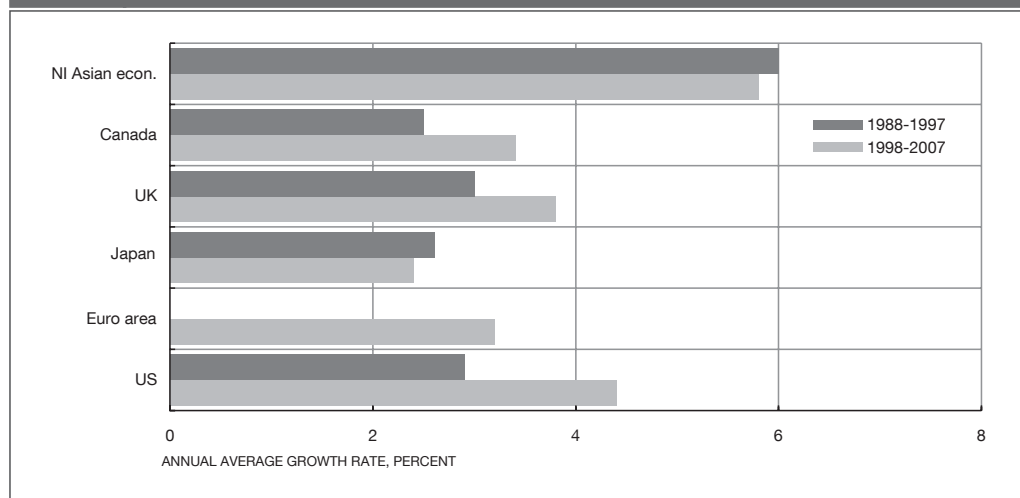


FIGURE 5 **PRODUCTIVITY IN MANUFACTURING**

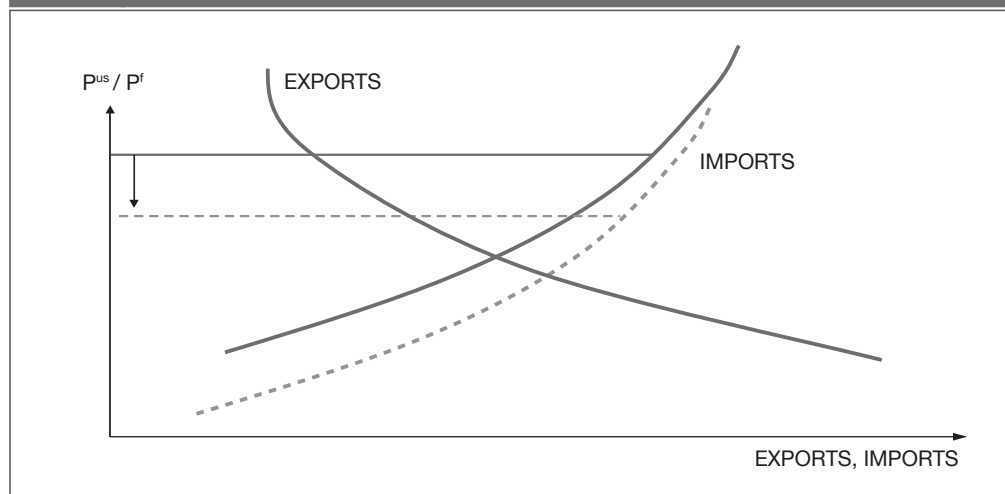
SOURCE: IMF, World Economic Outlook.

probably why researchers who include the gross balance sheet in their analyses find that the consequences for exchange rate adjustment need not be large.

Co-movements among the other margins shaping the external imbalance should importantly influence your view on the nature of the adjustment process. One source of concern, as in observation 4, is that in the United States the two key relative price margins may be related. A signal feature of U.S. economic performance has been the step-up in the growth of manufacturing productivity over the past decade (Figure 5). The good news is that faster productivity growth in manufacturing works to keep U.S. traded goods competitive with those from abroad. The bad news is that it also makes nontraded goods and services potentially relatively more expensive at home, encouraging demand for imports and import-competing goods. For example, an increase in the growth of productivity manufacturing at an unchanged exchange rate might shift the import demand curve as in Figure 6. (This general equilibrium effect might be one reason we saw those two remarkable features of the U.S. economic experience over the past ten years – the pickup in productivity growth and the steepening slide of the current account deficit).

My fifth observation is that two key external margins may be related. In particular, a depreciation of the dollar that lowers the relative price of U.S. to foreign goods should encourage our exports and discourage our imports. But, from the perspective of our trading partners, this represents an adverse aggregate demand shock. If policy-makers abroad are not prepared to offset this drag, their relative income growth will suffer to the detriment of global demand for U.S. goods. Under that scenario, the United States will get a larger relative slice of the pie of global demand, but the pie may have shrunk (which produces shifts in the two curves similar to Figure 4).

FIGURE 6 THE EFFECTS OF AN INCREASE IN THE GROWTH OF MANUFACTURING PRODUCTIVITY



This leads to my sixth observation: Meaningful progress in reducing the U.S. imbalance cannot rely on change at a single margin. Some combination of relatively faster growth of income and wealth abroad and technical progress at home biased toward nontraded goods would likely set the market backdrop associated with a decline in the price of traded goods and services produced in the United States relative to those produced abroad. If this process were gradual, resources could shift efficiently to take the fullest advantage of these changed circumstances, lessening the magnitude of the necessary adjustment.

## Monetary Policy Implications

What does all this mean for monetary policy? I'd like to address three questions: How should policy respond to a gradual adjustment process? Can monetary policy initiate the adjustment process? And how should policy respond to a sharp adjustment process and potential associated market strains?

From the perspective of the central bank, changes in the various margins during a phase of gradual adjustment can be taken for just what they are – relative shifts in prices, income, and wealth. As long as inflation expectations remain contained, relatively faster growth of the prices of imported goods for a time would be associated with a temporary bulge in overall inflation but would leave no significant imprint on core inflation. In that case, maintaining the full utilization of resources will both facilitate the movement of inputs of production needed to meet new, relatively higher foreign demands and foster price stability. To the extent that inflation expectations and core inflation were not impervious to more

rapid import price inflation, policymakers would be confronted with the more difficult challenge of weighing the threats to their dual objectives – but in the United States that is the role the Congress assigned to them. Not to prejudice that balancing, the experience of the past few decades suggests that it is important to draw a firm line at preventing inflation from picking up on a permanent basis.

If this seems familiar, it should. I was reading from the playbook page headed, “Asset prices and monetary policy”.<sup>2</sup> The price of an asset,  $x$ , matters for policymakers to the extent that it influences the outlook for aggregate demand and inflation. Policymakers should respond systematically to that extent. To respond beyond that presumes a better understanding of asset prices than the market, risks the pursuit of the macroeconomic objectives, and could fail because the link between asset prices and the policy instrument is indistinct. Policymakers concerned about systemic strains should tackle the problem directly by strengthening financial regulation.

If the process of gradual adjustment looks attractive, should monetary policymakers do something to initiate the adjustment? Here it is pretty clear that you’d be looking to the wrong set of policymakers. The conventional recommendation is that easier policy at home and tighter policy abroad will depreciate the home currency and make home-produced goods more attractive. But remember Alan Blinder’s admonition that we know the least about exchange rate determination and the observation that pass-through seems to have declined around the world.<sup>3</sup> Against that backdrop, it is in no way obvious that a central bank can be confident that it could get the adjustment process started in a meaningful way.

But even if the central bank could change the relevant relative price, would it necessarily improve the nation’s trade position? In fact, the effects on the scale variables determining the position of the import and export demand curves may offset the effects of the relative price change. Looser policy at home and tighter policy abroad should lead to wealth and income changes that encourage imports and discourage exports, making the net effect ambiguous (which will be similar to the shifts already shown in Figure 4). The correct set of policies are those our moderator opened with: consolidation of the balance sheets of households and the government in the U.S. and structural reforms abroad.

Alan Blinder also asked us to re-think coordinated sterilized intervention yesterday. Suppose it was, indeed, employed to try to get the process of weakening the currency started. There are two possibilities. On the one hand, if it were successful, then subsequent monetary policy actions to stabilize the domestic economy would have to reverse some of those effects so as to keep inflation contained and

---

<sup>2</sup> See, for instance, Reinhart (2003).

<sup>3</sup> Evidence on the decline of pass-through is given in Ihrig, Marazzi and Rothenberg (2006).

resources at full employment, calling into question the credibility and consistency of policymakers. On the other hand, if market participants understand that some of the effects of a successful intervention would be rolled back by subsequent domestic policy actions, the odds that the policy works to begin with would seem to be lowered.

Lastly, I got the sense that the organizers wanted me to address how monetary policy should respond to a sharp adjustment of imbalances and potential associated market strains. I'm not going there. It is unhelpful to speculate in public about low-probability events, in part because each episode is different. Despite that request, I do appreciate participating in this panel.

## References

- BLANCHARD, OLIVIER, FRANCESCO GIAVAZZI and FILIPA SA (2005), "The U.S. Current Account and the Dollar," *Brookings Papers on Economic Activity*.
- CLARIDA, RICHARD (2006), *G7 Current Account Imbalances: Sustainability and Adjustment*, Chicago: The University of Chicago Press.
- DOOLEY, MICHAEL P., DAVID FOLKERTS-LANDAU, and PETER M. GARBER (2005), "Interest Rates, Exchange Rates, and International Adjustment," NBER Working Paper number 11771.
- GREENSPAN, ALAN (2005), "International Imbalances," speech before the Advancing Enterprise Conference, London, England.
- GOURINCHAS, PIERRE-OLIVIER and HELENE REY (2006), "From World Banker to World Venture Capitalist: The US External Adjustment and the Exorbitant Privilege," forthcoming in Richard Clarida (ed.) *G7 Current Account Imbalances: Sustainability and Adjustment*, Chicago: The University of Chicago Press.
- IHRIG, JANE E., MARIO MARAZZI, and ALEXANDER ROTHENBERG (2006), "Exchange-Rate Pass-Through on the G-7 Countries," International Finance Discussion Papers number 2006-851.
- LANE, PHILIP and GIAN MARIA MILESI-FERRETTI (2004), "Financial Globalization and Exchange Rates," CEPR Discussion Paper 662.
- OBSTFELD, MAURICE and KENNETH ROGOFF (2005), "Global Current Account Imbalances and Exchange Rate Adjustments," *Brookings Papers on Economic Activity*.
- OBSTFELD, MAURICE and KENNETH ROGOFF (2006), "The Unsustainable US Current Account Position Revisited," forthcoming in Richard Clarida (ed.) *G7 Current Account Imbalances: Sustainability and Adjustment*, Chicago: The University of Chicago Press.
- REINHART, CARMEN M. and KENNETH S. ROGOFF (2004), "The Modern History of Exchange Rate Arrangements: A Reinterpretation," *Quarterly Journal of Economics*.
- REINHART, VINCENT R. (2003), "Planning to Protect Against Asset Bubbles," in William C. Hunter and Michael Pomerleano, eds., *Asset Price Bubbles: The Implications for Monetary, Regulatory, and International Policies*, Cambridge, MA: MIT Press.