Comment
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Economists take three approaches to analyzing the amount of dollar depreciation or foreign currency appreciation needed to move global imbalances to sustainable levels. I think of these as the Big Mac approach, the Big Model approach, and the Big Envelope approach. The Big Mac or Purchasing Power Parity approach compares price levels across countries, with or without adjustments for differences in income levels and hence for the relative prices of nontraded goods. According to the latest data I have on Big Mac prices, for February 1st, the dollar is 20 per cent undervalued relative to the European currencies (19 per cent against the euro, 21 per cent against sterling), and about 40 per cent overvalued against Asian currencies (30 per cent against the yen, 50 per cent against the renminbi). It is perhaps worth mentioning for our Korean participants that according to the Big Mac Index, the won is the only Asian currency that is not significantly undervalued against the dollar. Given that US trade with Europe and Asia is of roughly equal importance, this simple approach suggests that the dollar is at least 10 per cent overvalued. This approach is also consistent with the view that adjustment should occur against Asian currencies, not European currencies.

You can also see why this approach is not especially powerful. It sends mixed signals about whether the dollar is overvalued or undervalued, depending on the counterpart region. The confidence intervals are very wide. A recent paper by Yin-Wong Cheung, Menzie Chinn and Eiji Fujii (2007) shows that a more sophisticated implementation – using GDP deflators rather than Big Mac prices and adjusting for relative incomes – still generates very wide confidence intervals that are consistent both with the Big Mac-style price disparities, like those I described above, and zero price disparities. Put it another way, according to their results using GDP deflators, the renminbi is either 50 per cent undervalued against the dollar or 0 per cent undervalued against the dollar. This is not very helpful from a policy point of view.

One alternative is to run a big model through its paces, as the Federal Reserve Board and IMF have done, and to ask what combination of policies and exchange rate adjustments will restore the U.S. current account to some arbitrary level deemed to be sustainable. An advantage of this approach is that one is forced to respect the fact that the world economy is a general equilibrium system, in which outcomes depend on the interplay of many separate relationships. One is forced to specify either the size of the exogenous policy adjustments and derive the change in the U.S. current account, or specify the level of the U.S. current account deficit that is the target and derive the change in the stance of policy.

The problem is that these models are so complicated that it is hard to know what is driving the results. Moreover, the current account target used in these exercises is arbitrary. 3% is a popular number (Martin Baily and Robert Lawrence cite it in their paper), on the grounds that in conjunction with a 6% rate of growth of nominal GDP, and ignoring a variety of other complications (like valuation effects), it produces a 50%

external debt/GDP ratio in the steady state (Mussa 2004). But it is not clear that 50% is more plausible than 40%, or 60%, or 80%.

Baily and Lawrence opt instead for what I think of as a sensible back-of-the-envelope approach, which involves assuming that there exists a sustainable level for the U.S. current account deficit, like that posited in Big Model simulations, and estimating a semi-reduced form equation for the current account balance, where the main independent variable in the reduced form is the lagged real exchange rate. (In practice, what they do is a little more complicated – they estimate separate reduced forms for imports and exports.) The authors get a strikingly stable relationship, and they build their analysis around it. Their results suggest that the dollar will have to fall by an additional 20 per cent or so on a real effective basis in order to restore external balance. This is consistent with the standard arithmetic that a 10 per cent fall in the dollar leads to a 1% of GDP improvement in the current account, and that the dollar has fallen by about 20 per cent already from its 2003 peak.

While I think that the authors are in the right ballpark, I do have some problems with their approach. Technically, the relationship is "identified" by the fact that the real exchange rate is lagged. But we know that the real exchange rate shows persistence; hence this relationship looks a lot like regressing one endogenous variable on the other. I would like to know what the exogenous shock is that causes both the real exchange rate and the current account to move. Is it declining willingness of private foreign investors or foreign central banks to absorb U.S. debt securities? Is it President Bush's new budget, which promises to reduce U.S. absorption and crowd in exports over time? Is it higher U.S. interest rates damping down housing markets and reducing household spending, again leading to less absorption and crowding in exports through a weaker real exchange rate?

The authors acknowledge that adjustment in practice will require both expenditure changing and expenditure switching. But I have trouble making sense of a partial equilibrium analysis that focuses entirely on the expenditure switching channel and that, while acknowledging the existence of other elements, does not analyze them explicitly. The authors place considerable emphasis on the deterioration in U.S. trade performance since the mid-1990s. Well, were I to explain it, I would focus first on the investment boom in the second half of the 1990s, which stimulated absorption, sucked in imports, and crowded out exports, and then loose monetary and fiscal policies in the first half of this decade, which stimulated consumption relative to savings. I think I could explain the co-movement of the real exchange rate and the current account in terms of these shocks, and even tell a story for why the bivariate relationship shifted relative to prior years. But I would want to focus on fundamental factors like these, and not on the bivariate relationship between two endogenous variables, the current account and the real exchange rate. And I would want to lay out assumptions about private and public spending adjustments and foreign financing decisions when contemplating scenarios for the future.

I myself am a back-of-the-envelope man. I am all for this approach, and I applaud the authors for taking it. I just would like to see them scribble on a larger envelope and rely less on reduced forms.

References

Cheung, Yin-Wong, Menzie Chinn and Eiji Fujii (2007), "The Overvaluation of Renminbi Undervaluation," NBER Working Paper no.12850 (January).

Mussa, Michael (2004), "Exchange Rate Adjustments Needed to Reduce Global Payments Imbalances," in C. Fred Bergsten and John Williamson, *Dollar Adjustment: How Far? Against What?* Washington, D.C.: Institute for International Economics, eds, pp. 113-138.