Commentary: The Once and Future Global Imbalances? Interpreting the Post-Crisis Record

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Global current account imbalances are a perennial topic of analysis and debate among international economists, but others may wonder what all the fuss is about. Depending upon whom you read, they can be either the greatest threat to the global economy—for example, the root cause of the recent global financial crisis—or an accounting irrelevancy.

Part of the problem is that accurate analysis of current account imbalances is inherently nuanced and subject to big analytical uncertainties. To some extent, imbalances can be natural and healthy, allowing global saving to flow to its most productive uses, for example, rather than being bottled up in its countries of origin. On the other hand, imbalances sometimes reflect policy distortions with negative impacts at home or abroad.

To make matters worse, international economists disagree about the root causes of imbalances and appropriate economic policies, making it contentious to assess which portion of imbalances, if any, might be excessive in some sense and thus a cause for concern. To some, Germany's current account surplus, at 8.3 percent of its gross domestic product (GDP) in 2016, is an optimal response to its aging population and desire for fiscal rectitude relative to the rest of the world. To others, it is a source of unwelcome deflationary pressures

in a world economy with already low interest rates, or of job losses in its trade partners. No wonder eyes glaze over at this debate, and pithy but accurate sound bites are scarce.

The Significance of This Paper's Approach

Menzie Chinn is a leader of the intrepid band of international economists who have nonetheless taken on the challenge of explaining global imbalances. His paper shows the difficulties both of analysis and interpretation. The view at the International Monetary Fund (IMF) is that, despite the thankless nature of the job—many of our members, including large shareholders, disagree vigorously with our analyses—analytic monitoring of global imbalances is key to avoiding financial crises and macroeconomic coordination failures such as currency or trade wars. We view such a disinterested evaluation as an important public good. Even if you are a doctor, it can be dangerous to be *your own* doctor; likewise, it has often proven dangerous for countries to assess their own current account imbalances. Moreover, contagious ailments definitely require a multilateral treatment approach!

The basic model used in this paper, based on Chinn and Prasad (2003), has been very influential, and is also a fundamental basis for our analytical work in the IMF. Unlike the positive analysis in Menzie's paper, and as he points out, our External Balance Assessment (reported annually in our External Sector Report, or ESR) is a normative exercise (see Phillips et al. 2013). Based on a model like Menzie's, we ask what a country's current account balance would be, given its fundamentals, if it adopted over the medium term the policies that our annual Article IV surveillance recommends. This metric defines a current account *norm*, and deviations from that norm, a measure of *excess* imbalance.

A key feature of the ESR analysis is that it strives for multilateral consistency, as global imbalances necessarily sum to zero. Menzie accounts for the multilateral angle in his paper by measuring variables as deviations from GDP-weighted global averages.

The normative slant of the ESR approach helps identify directions of policy change that would both benefit each country and move its

current account closer toward its norm. For example, in our latest ESR, we argue that the United States deficit and the German surplus both are too big relative to their norms, and suggest "gradual fiscal consolidation" for the former and "more growth-oriented fiscal policy" (such as more productive infrastructure investment) for the latter (IMF 2017). For the record, both countries contest the IMF staff's 2017 assessments of their own economies, while remaining supportive of the need to continue (albeit with constant improvement) the annual ESR exercise.[1]

As Menzie's survey illustrates, there are other ways one could assess current account balances (for example, within the context of calibrated dynamic stochastic general equilibrium models), but for the purpose of extracting empirical regularities that apply across a broad range of countries—whether the 109 of this paper or the 28 plus the euro area (amounting to more than 85 percent of world GDP) in the ESR—something like the panel estimation approach that both methodologies use is a helpful disciplining framework, although not necessarily right for every country in every detail. In fact, the IMF acknowledges this shortcoming and therefore complements the numerical inputs from the model with country-specific factors, provided these are well justified and don't compromise the multilateral consistency of the exercise.

Global Imbalances in Perspective

Economic research starting in the early 1980s began to move the theory and empirics of the current account away from a simplistic focus on incomes and exchange rates as the main determinants of net exports toward a deeper analysis focusing on the saving-investment imbalance, and by extension, on the welfare implications and sustainability of imbalances. Not coincidentally, this progress coincided with a U.S. macroeconomic policy mix that contributed to historically large U.S. external deficits, dramatic changes in the dollar's real exchange rate, tensions over international trade, and a debt crisis in developing countries.

But the 2000s were perhaps the heyday of debate over global imbalances, as restrictions on international capital mobility came down,

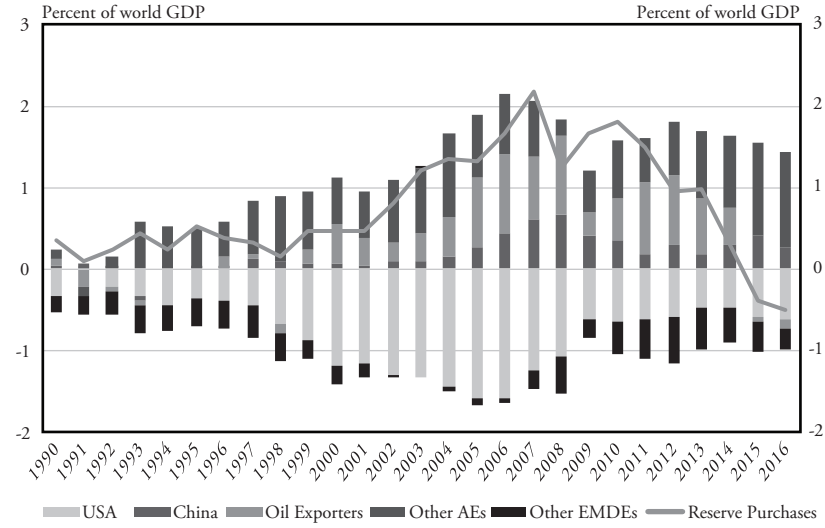
financial markets innovated, and the global economy felt more fully the impact of entry by the former Soviet bloc and, even more dramatically, China. Menzie's useful discussion of explanations for imbalances thus rightly focuses on that decade. Over the course of the decade and up to the global recession of 2009, global imbalances expanded sharply, as shown in Chart 1. Menzie, in his Section II, surveys theories about the widening of imbalances that largely grew out of the experience of the last decade.

Current account imbalances by necessity equal net capital flows. So-called *gross* capital flows, shown in Chart 2, require a differently-scaled *y*-axis—by a full order of magnitude. By the eve of the global crisis, two-way capital flows expanded by far more than was strictly necessary to finance current account imbalances, but post-crisis have returned to lower levels (though still far above the bare needs shown in Chart 1). Some two-way flows are useful, for example, equity diversification; but some reflect tax and regulatory arbitrage.

The explosion of international lending in the mid-2000s goes far beyond what any global saving glut story would imply and, to my mind, points to a driver of last decade's global imbalances that receives only brief mention in Menzie's paper: an international liquidity explosion that increased global collateral values and loosened borrowing constraints in a financially deregulated environment. Along with increased saving from East Asia and booming commodity exporters, the financial factor for advanced economies helps explain the latter economies' pattern of external imbalances, as argued by several writers (e.g., Obstfeld and Rogoff 2009 and Chinn and Frieden 2011).[2] Adam, Kuang and Marcet (2012), for example, quantify the role of house-price booms specifically in driving current account deficits. The recycling of foreign borrowing from the euro area core to its periphery drove current accounts but even more broadly set the stage for the euro crisis (Hale and Obstfeld 2016). These episodes illustrate a main reason large external deficits are worrisome: as a possible signal of building financial fragility.

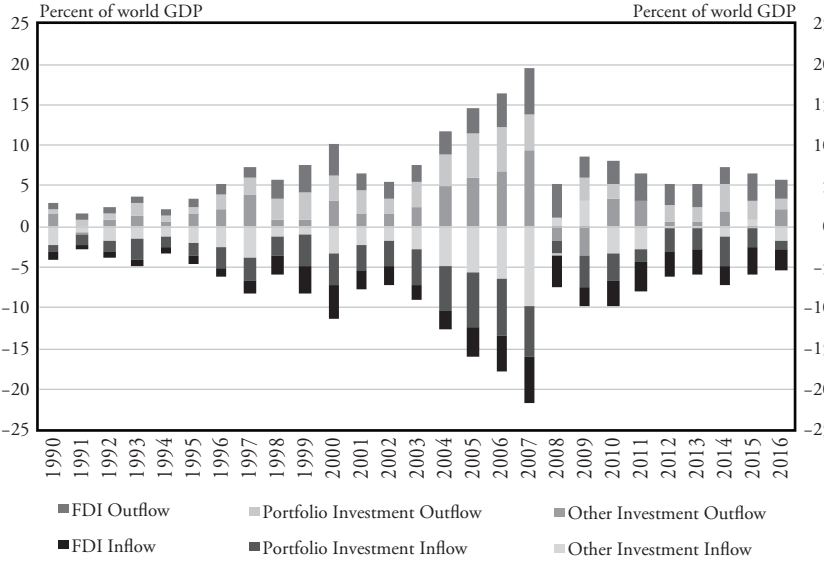
This is not to deny a role for "saving glut" or "safe asset" factors in pushing down global interest rates. At this conference in 2006, Prasad, Rajan and Subramanian (2006) pointed to the tendency for

Chart 1
Global Current Account Balances and Official FX Reserve Purchases, 1990-2016



Source: IMF, World Economic Outlook

Chart 2
Global Gross Financial Flows, 1990-2016



Source: IMF, Balance of Payment Statistics

important fast-growing East Asian economies such as China to supply capital to the rest of the world, that is, to have current account surpluses. Precisely because these economies were growing fast, their relative influence over the global interest rate grew over time (a composition effect). Furthermore, their demand for commodities pushed up prices and allowed many commodity exporters to run bigger surpluses or lower deficits. But was the resulting downward pressure on the global real interest rate—which is now substantially lower, and likely persistently so—enough, on its own, to elicit the current account deficits observed on the part of the United States and other countries? That seems implausible.

To track better the risks that could be associated with excess external imbalances, the ESR now tracks the evolution of countries' net international investment positions (NIIPs), the stocks that equals cumulated current account imbalances plus net capital gains on gross stocks of foreign assets and liabilities. They have generally been diverging. The concern about divergent NIIPs is that sudden recognition that external debt is excessive could trigger sharp downward spending compression, with negative spillovers abroad. An important future program is to monitor the balance-sheet risks—due to currency, maturity, and risk mismatch—implied by countries' gross positions.[3]

Currency Intervention as a Driver of Imbalances

Broadly speaking, Menzie finds in Section III that fiscal balances have become more important recently as a driver of external balances, that financial development asymmetries have become less so, and that commodity price declines in recent years have reduced commodity exporters' surpluses. The potential instability of the coefficients over time worries me, especially with an estimation period as long and structurally dynamic as 1971-2015. Another concern is to understand better the changing role of corporate saving (Gruber and Kamin 2016; IMF 2017).

Leaving those concerns to one side, I want to focus on the role of currency intervention, which is new to Menzie's work, but follows up on papers by Bayoumi, Gagnon and Saborowski (2015) and Gagnon, Bayoumi, Londono, Saborowski and Sapriza (2017). I do so because

the extent to which currency interventions and other financial policies may distort patterns of global external balances is both central to the surveillance mission of the IMF, and has been a potential flashpoint for global trade frictions.[4] This paper argues that foreign exchange intervention has a potentially powerful causal effect on current account balances. I want to question the robustness of this finding, as well as the structural mechanisms imagined to be at work in producing that effect, on which this literature provides no evidence.

For perspective, several theories are on offer. One, which I call the *mistaken identity* theory, derives its name from Paul Krugman's important reminder that it is dangerous to argue from macroeconomic identities while clueless as to the general-equilibrium forces at work: "Don't tell me about how the identity must hold, tell me about the mechanism that induces the individual decisions that make it hold."[5] Thus, Pettis (2011) invokes the balance of payments identity to claim it is stunningly obvious why a foreign official dollar purchase has a strong negative effect on the U.S. current account: "If foreign governments intervene in their currencies and accumulate U.S. dollars, they push down the value of their currency and will run current-account surpluses exactly equal to their net purchases … . The reverse is true as well: Because its trade partners are accumulating dollars, the United States must run the corresponding current-account deficit, which means that total demand must exceed total production. In this case it is a tautology that Americans are consuming beyond their means." Time is insufficient to list the flaws in this argument, which completely disallows behavioral offsets through financial accounts or other channels.

A more sophisticated view holds that when a country intervenes to buy U.S. dollars, this action weakens its currency, promoting net exports. Furthermore, if the intervening country is large or if many smaller countries intervene at once, longer-term U.S. bond yields may be forced down, reducing U.S. saving and raising U.S. investment. Bergsten and Gagnon (2017) take this view and consider currency manipulation a major cause of global imbalances, as does King (2017), who also views the euro area too as distorting world trade because the single currency artificially enhances the competitiveness

of surplus members, notably Germany.[6] Chart 1 plots official reserve purchases along with global imbalances and illustrates the joint surge in both prior to the Great Recession.

Menzie's paper is silent on the precise mechanisms linking reserve accumulation and the current account, but instead takes a quasi-reduced form approach, regressing the current account on net official foreign-currency outflows as well as the other determinants of the current account included in the earlier regressions. The coefficients are large and significant, in line with past literature. (Official outflows include intervention purchases, but also cover other government-driven foreign-currency flows, such as sovereign wealth fund transactions.)

One needs to be careful when regressing macroeconomic variables on other variables to which they are closely linked by identities, and in interpreting large positive correlations as causal. (A similar concern arises in using the fiscal balance as a regressor, notwithstanding efforts to clean it of cyclical influences). Chart 1 shows, for example, that in the mid-2000s, oil exporters' current account surpluses swelled. Because in many cases they maintain exchange rate pegs, and private capital outflows did not fully offset their bigger current accounts, they had to intervene and accumulate reserves. But their interventions were not primary drivers of their surpluses—both variables were driven by the world oil price. It seems doubtful to me that oil exporters' current account surpluses would have fallen as much as these regressions imply had they allowed their currencies to float.

Menzie's paper, like others in this vein (including the EBA model), tries to address the problem with instrumental variables and controls. If not properly instrumented, however, these regressions could capture little of the causal impact of intervention on the current account over time (that is, the within effect) but instead mostly capture the between effect that many high surplus countries have also tended to accumulate reserves. My worries heighten when I am told that one instrument is emerging-market status, which has little time series variation. Menzie is correct not to include country fixed effects in his baseline current account regressions—doing so might hide important facts about slow-moving variables such as institutional quality or reserve-currency status—but here, I think their omission may

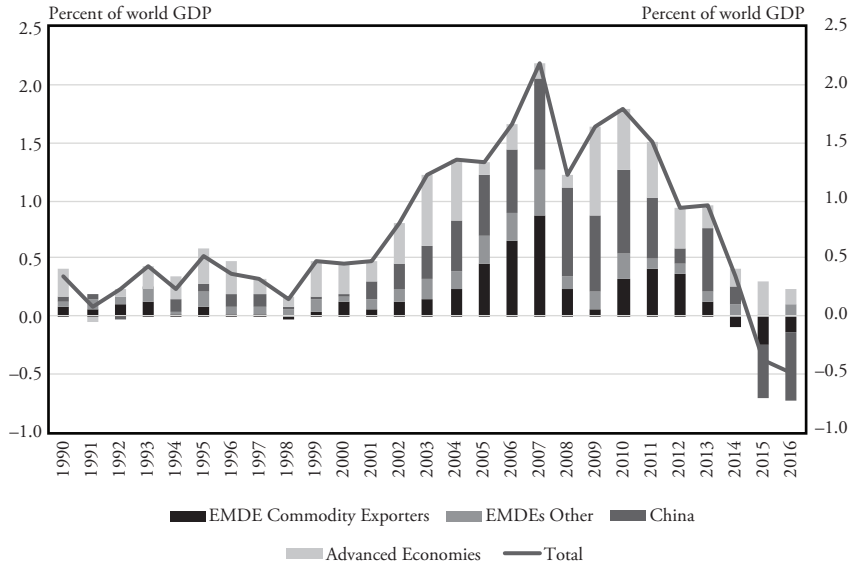
obscure the dynamics around intervention (which are already blurred by his use of five-year periods). The result in Menzie's Table 4 that, with instrumental variables, intervention has an unconditional near unit effect on the current account, is simply not credible.

By contrast, our EBA methodology and the papers by Bayoumi et al. and Gagnon et al. find (in annual data over shorter sample periods) comparably high coefficients on intervention only when the capital account is fully closed, but a much smaller effect when the capital account is fully open. For example, Gagnon et al. find that for a country near the midpoint of their capital mobility index, a $1 foreign exchange (FX) purchase translates into about a 50-cent current account improvement; the estimate of Phillips et al. is less than half that size. These findings are far more plausible, and in line with the longstanding belief that sterilized FX intervention has at most fleeting effects for advanced economies. That said, the approach still leaves questions about other sources of country heterogeneity alongside capital-account openness, and about the temporal stability of estimated relationships.

Chart 1 shows that world total reserve purchases have declined and gone negative since the global financial crisis, in concert with a rotation of global surpluses toward advanced economies that intervene rarely if at all (see also IMF 2017, p. 9). This recent turnabout owes mostly to China and commodity (mainly oil) exporters (see Chart 3), whose big reserve losses and current account reductions are driven by different common causes—rebalancing in the former and export-price declines for the latter. In neither case have official FX flows been causal. In sum, these recent developments have implied an aggregate reversal of the notorious "uphill flow" of capital from poor to rich economies—albeit one that is projected to be fleeting, as it is supported by emerging economy reserve losses (see Boz, Cubeddu and Obstfeld 2017).

None of the studies in this literature worries much about whether intervention is sterilized or not, or comprehensively incorporates the role of monetary policy (though Gagnon et al. look at central bank domestic credit expansion and find that its current-account effect, too, goes to zero as capital mobility rises). There is certainly more

Chart 3
Global Reserve Purchases by Region, 1990-2016



Source: IMF, Balance of Payment Statistics

room to integrate this research program further with recent studies of unconventional monetary policies, which raise similar issues about portfolio-balance versus conventional monetary-policy effects.

Global Interest Rate Trends and Risks

Since Bernanke's (2005) famous global saving glut speech, real interest rates throughout the world have fallen even further, although countries' current account behavior has been diverse. Presumably the global saving schedule (showing how savings depends on the real interest rate) has shifted rightward relative to the global investment schedule, but the international pattern of current account balances reflects that the distribution of aggregate changes in saving and investment has been uneven across countries. To understanding the recent evolution of global imbalances is to understand these changes, and Menzie's paper provides some important clues. Researchers, including many at the IMF, will continue trying to understand these developments—which may signal risks to the global economy, including from protectionist policies.

If the level of global real interest rates remains low for long—as suggested, for example, by secular stagnation theories or evidence such as in Gourinchas and Rey (2017)—then global imbalances are unlikely to shrink anytime soon. In surplus countries, savers may save more as the income effect of low real returns dominates the substitution effect, while investment demand remains subdued. In deficit countries, borrowers will face reduced pressure to adjust. That configuration could prove risky whenever financial conditions tighten down the road, so monitoring global imbalances should remain high on the IMF's agenda.

Author's Note: The views expressed here are those of the author alone, and not those of the IMF staff, its management, or its Executive Board. I thank Luis Cubeddu, Menzie Chinn, Joseph Gagnon and Haonan Zhou for helpful input; all errors are mine.

Endnotes

[1]A summary of the IMF Executive Board's discussion of the 2017 ESR can be found at *http://www.imf.org/en/News/Articles/2017/07/28/pr17303-imf-executive-board-discusses-the-2017-external-sector-report.*

[2]For other accounts of the role of global financial forces in preparing the ground for the crisis, see Hume and Sentance (2009), Acharya and Schnabl (2010), Bernanke, Bertaut, Demarco, and Kamin (2011), Borio and Disyatat (2011), and Bayoumi (2017).

[3]I argued for this perspective at this conference several years ago (Obstfeld 2010).

[4]In their recent book, Bergsten and Gagnon (2017) make the case for linking currency policy to trade policy. A closely related policy question is whether, at the effective lower bound for the nominal policy interest rate, unconventional monetary policies such as several advanced countries have carried out have trade distorting effects similar to those alleged of currency intervention by emerging market economies. Rajan (2014) argues that they do, Coeuré (2017) that (in the case of the ECB's operations) that they have not.

[5]Krugman (2012).

[6]Germany's new currency likely would appreciate were Germany to exit the euro, but the shared currency of the remainers would depreciate, with ambiguous effects on the competitiveness of outside currencies.

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