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Global imbalances and the global financial crisis

Throughout the late 1990's and early 2000's, international attention was increasingly drawn to a coordinated trend in the balance of payments of some of the world's largest economies; indeed, a rapidly widening gap was appearing between one set of countries running growing current account surpluses on the one hand, and another group of countries accumulating current account deficits on the other. This structural process, commonly referred to as one of rising global imbalances, has since become recognized by analysts and policymakers as one of the most important characteristics of the contemporary international monetary system, both as an issue in itself as well as a reflection of a number of interrelated underlying international and domestic imbalances.

Writing in November 2009, in *Global Imbalances and the Financial Crisis: Products of Common Causes* authors Maurice Obstfeld and Kenneth Rogoff sought to provide an in-depth analysis of the numerous, complex and closely interlinked monetary and fiscal factors and policies that have converged and contributed to causing these growing imbalances. The authors also examine how this phenomenon might have contributed to the deep financial crisis that originated in the United States in late 2007 before spreading to other economies around the world thereafter.

Indeed, over the years a significant amount of debate has been generated around these questions, including what lessons need to be learned and which policies should be adopted in order to prevent future crises. In light of the devastating impacts of the subprime and global financial crises, it is extremely important to understand the origins and nature of the global imbalances, the implications that these imbalances have had (and may continue to have) on the growth and stability of the international system and national economies.

Rising global imbalances

The process of rising global imbalances was driven by the convergence of, and interaction between, a number of national economic policies as well as international and domestic market forces. Under the current international economic order and monetary system, the forces of trade liberalization and financial globalization have generated increasing levels of interdependence between countries. Financial innovation and de-regulation have allowed the international transfer of savings (from surplus countries to deficit countries) on an unprecedented scale; meanwhile dense networks of international financial linkages have also ensured that the policy decisions and market developments that occur in one country (particularly the world's largest economies) generally have direct consequences on other economies, as well as on international markets. The main channels and transmission mechanisms through which this interdependence generally operates include: key asset prices in domestic and international capital markets (currency exchange rates, credit prices, real estate prices); Central Banks' monetary policies; governments' fiscal and trade policies; national savings schedules and investment rates; and fluctuating national risk profiles and economic outlooks.

In a sense, there seems to be a general consensus regarding the factors and sequence of events that fueled the rising imbalances; however disagreements arise when it comes to the exact nature and extent of the relationship between the imbalances and the financial crisis of 2007. To be precise, the main source of contention appears to

concern the varying degrees of responsibility that different explanations have attributed to different actors or different causal factors. While U.S financial markets were indisputably the point of origin and the epicenter of the global financial crisis of 2007-2009, many explanations have stressed the fact that the most important policies and market forces that led to the financial crisis were actually external to the U.S. These explanations have sought to demonstrate that the largest share of responsibility should be placed on those countries who ran high current-account surpluses. The deliberate economic policies and market behavior of these 'surplus' countries often consisted in directly or indirectly re-channeling the resulting financial surpluses towards U.S markets, primarily via liquid and risk-free U.S government bonds. The process of international transfer of savings distorted market signals while also fueling credit and real estate bubbles in the U.S, and driving rising concentration of risk in U.S markets.

On this 'surplus' side of the equation, two sets of actors played leading roles in what is commonly referred to as the 'global savings glut':

- Developing and newly-industrialized Asian countries[1] experienced rapid economic growth, with high national savings rates and low domestic investment rates, while intervening to maintain high current account surpluses. These factors resulted from the acceleration of long-term national trends (improved competitiveness in the production of low-tech manufactured goods; further outward shift in national savings schedules; and low investment demand due to under-developed financial markets and some capital controls / repressive government policies) and the adoption of new economic strategies in the wake of the region's financial crisis (maintaining an undervalued exchange rate to ensure competitiveness and support export-led growth; accumulating international reserves as a precautionary measure to prevent vulnerability to new balance of payments crises). China in particular accounted for a very large share of total Asian (and indeed, global) external surplus (see Graph 1). China's entry into the WTO in 2001 contributed to higher levels of trade and the acceleration of its already rapid economic growth. By 2007, China's annual growth rates of real GDP and current-account surplus had risen steadily to reach 'staggering' levels, 13% and 11% respectively.[2]

- Commodity exporters around the globe also benefited from huge windfalls as the steep rise in world commodity prices throughout the early 2000's improved their terms of trade and allowed high current account surpluses (see Graph 1). This trend was particular true for oil-exporting countries.[3] A large share of the resulting revenue (generally captured by governments) was directed towards savings instruments and vehicles rather than being re-injected into the world economy via spending and investment. This high rate of savings was primarily due limited governmental fiscal spending (lack of institutional capacity) and limited domestic investment opportunities (under-developed domestic financial markets). Revenues were often channeled to sovereign wealth funds (SWF) whose investment strategies in the early 2000's often relied heavily on U.S treasuries or U.S financial assets.

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[1] IMF Working Paper (09/89) *Global Imbalances and Petrodollars*: Emerging Asia comprises China, Hong Kong, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan Province of China, Thailand, and Vietnam.
[2] Obstfeld and Rogoff, 2009. *Global Imbalances and the Financial Crisis: Products of Common Causes.* (p18)
[3] IMF Working Paper (09/89) *Global Imbalances and Petrodollars*: Oil/gas exporting countries are Algeria, Angola, Azerbaijan, Bahrain, Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Kazakhstan, Kuwait, Libya, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, Syria, Turkmenistan, United Arab Emirates, Venezuela, and Yemen.

As mentioned above, some explanations (advanced most prominently by Ben Bernanke[4]) have identified this general 'over-saving' and the accumulation of US dollar reserves by governments as the key factors behind the rise of global imbalances. According to this perspective, the global savings glut suppressed global investment demand starting in the early 2000's, and combined with the massive (primarily Chinese and oil-exporter SWF) purchases of U.S treasuries exerted downward pressures on global real interest rates, '[causing] world-wide asset-price adjustments that induced a number of mature economies, most importantly that of the United-States, to borrow more heavily from foreigners.'[5]

In contrast to these explanations, which assign a mostly passive role to the United-States economy, some analysts have offered more nuanced and comprehensive explanatory frameworks. Obstfeld and Rogoff (2009) is an example of such an approach. In their article, the authors seek to balance out the importance of the global savings glut, mostly by lending closer attention to the internal policies and market forces of deficit countries (primarily the US, more generally advanced/industrialized economies).

Regarding the drop in global real interest rates, Obstfeld and Rogoff point out that IMF data actually shows a *drop* in global savings rates between 2000 and 2002, at the very time when this downward trend in real interest rates began.[6] This observation brings into question the early impact of high emerging-country savings rates on global real invest rates. Instead Obstfled and Rogoff highlight the importance of the drop in global investment demand resulting from the dot-com crash that struck advanced economies in that specific period, and marked "global decline of the high-tech sector, which in the U.S. was a main driver of the foreign deficit during the 1990s."[7]

Moreover, Obstfeld and Rogoff are also to stress the fact that the U.S credit and real estate bubbles cannot possibly be explained only via exogenous factors, and that internal dynamics, and consumer and government decisions, played critical roles. The authors suggest that in addition to the role that global imbalances played in reducing global real interest rates and channeling liquidity to U.S markets, the origins of the global financial crisis are also intimately linked to the stimulative monetary stance adopted by the U.S Federal Reserve (which saw U.S short-term interest rates drop from 6.5% in May 2000 to 1% in June 2003) and the European Central Bank, as well as the rapid financial innovation and de-regulation that drove loose and predatory lending practices and the massive rise in structured debt products via securitization.

Diagrams 1 and 2 offer break-downs of the different processes and sequences of events already described, allowing to map the nexus between the global imbalances and the U.S subprime crisis and the associated global financial crisis. These diagrams also offer a number of insights into the importance of acknowledging the circular and cumulative causation that often exists between internal and external factors (Box A), or market forces and government policies.

Global imbalances – Looking forward after the crisis

The profound shocks and lasting pressures set off by the financial crisis as early as late 2007 have led to some signs of a 'global reconfiguration of global imbalances.' [8] Indeed, in 2009 Obstfeld and Rogoff noted that the growth rate of the U.S current account deficit had dropped sharply after years, while CA surpluses in some advanced and commodity-exporting countries had also dropped, 'newly industrialized Asia [had] maintained its surplus [and] that of developing Asia (largely due to China) [had] continued upward.'[9] Graph 2 also shows that this sudden reduction in overall global imbalances largely held into 2011 and 2012 – even though graph 1 shows that by 2012

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[4] Bernanke, Ben S., 2005, "The Global Saving Glut and the U.S. Current Account," Remarks at the Sandridge Lecture, Virginia Association of Economics, Richmond, VA, March 10.

[5] Obstfeld and Rogoff, 2009. *Global Imbalances and the Financial Crisis: Products of Common Causes.* (p11)

[6] Ibid. (p13)

[7] Ibid. (p13)

[8] Ibid. (p31)

[9] Ibid. (p31)

national trade balances were slightly different, with China's surplus expected to drop while oil exporters were expected to see CA surpluses return to and surpass pre-crisis levels.

Obstfeld and Rogoff explain that the key mechanism through which they expect the adjustment process to take place is a shift in currency exchange rates – namely, a depreciation of the U.S dollar. The authors observed in 2009 that, despite a significant volatility in the dollar's value primarily driven by powerful short-term market forces related to the dollar's unique role in global markets, long-term trends seemed to point towards a gradual devaluation of the dollar against other currencies, particularly Asian newly-industrialized and emerging markets.

However, this trend alone should not inspire too much optimism, since much deeper adjustments will need to occur. Writing in 2009, Obstfeld and Rogoff identify a number of very serious and persistent domestic structural imbalances that could threaten the international economic order and monetary system – and most of these problems continue to seem very relevant as of early 2013.

Adjustments are always most difficult for deficit countries[10], and this hold true for the U.S (and to a lesser extent the E.U, whose own internal imbalances have caused the on-going Euro crisis.) The U.S continues to suffer from a fragmented and ineffective regulatory system that prevents effective macro-prudential supervision of its (oversized and consistently growing) financial sector. Meanwhile, the world's largest economy faces slow GDP growth (1.6% in Q4 2012[11]) and high unemployment (7.7% in February 2013) while political paralysis has prevented the government from addressing its serious fiscal problems and very high public debt[12]. A loss of faith in the U.S government could jeopardize the dollar's role as the leading international reserve currency (even if it operates gradually via the acceleration of long-term trends showing other country's diversification towards reliance on forms of international reserves[13]), especially since the resulting rise in U.S government borrowing rates would further exacerbate its fiscal challenges. Moreover, even if a depreciation of the U.S dollar does occur and help to re-balance the country's balance of payments, this development would also have the perverse effect of increasing the country's net foreign liabilities (which have so far been muted by a strong dollar due to the currency denominations of U.S foreign assets and liabilities.)

From a more general perspective, it appears evident that in the long run fundamental shifts will have to take place in the international economy. As shown in Graph 3, continued economic growth differentials between developed and developing countries are reinforcing and confirming the growing concentration of economic power in developing countries, and most particularly the five BRICS countries. However, if anything is to be learned from the past decade, continued reliance on undervalued currencies, exports-led growth, international savings transfers and reserve accumulation does not seem sustainable, and therefore future prospects for international growth and stability will depend as much on domestic structural reforms in developing countries (higher domestic consumption, and domestic investment via deeper financial markets[14]) as on developments in the United States.

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[10] Ibid. (p37)

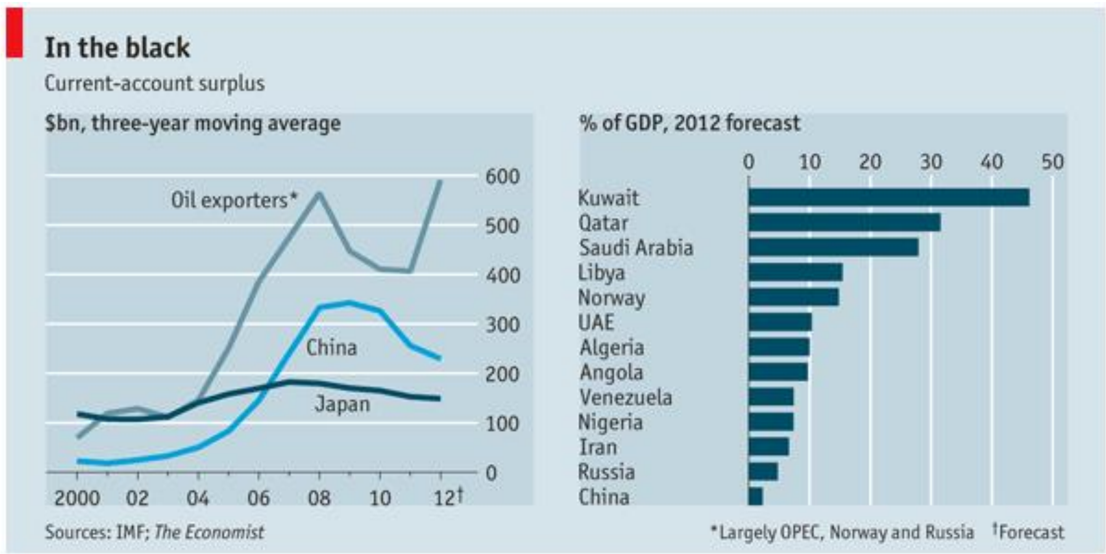
[11] All U.S economic indicators from The Economist, print edition March 30th 2013.

[12] Budget deficit estimated at 5.4% of GDP in 2013, while national debt has grown significantly since 2008, along with very serious signs of weakness in state- and municipal-level public finances.

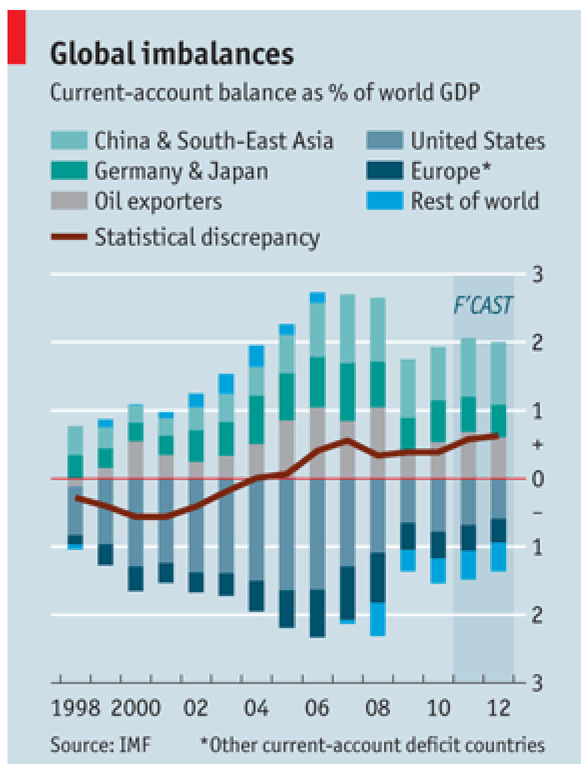
[13] Ibid. (p35)

[14] As suggested by Obstfeld and Rogoff (2009), p. 37.

Graph 1. Current-account surplus countries (from April 2012)



Graph 2. Global imbalances 1998-2012 (from Jan. 2011)



Graph 3.

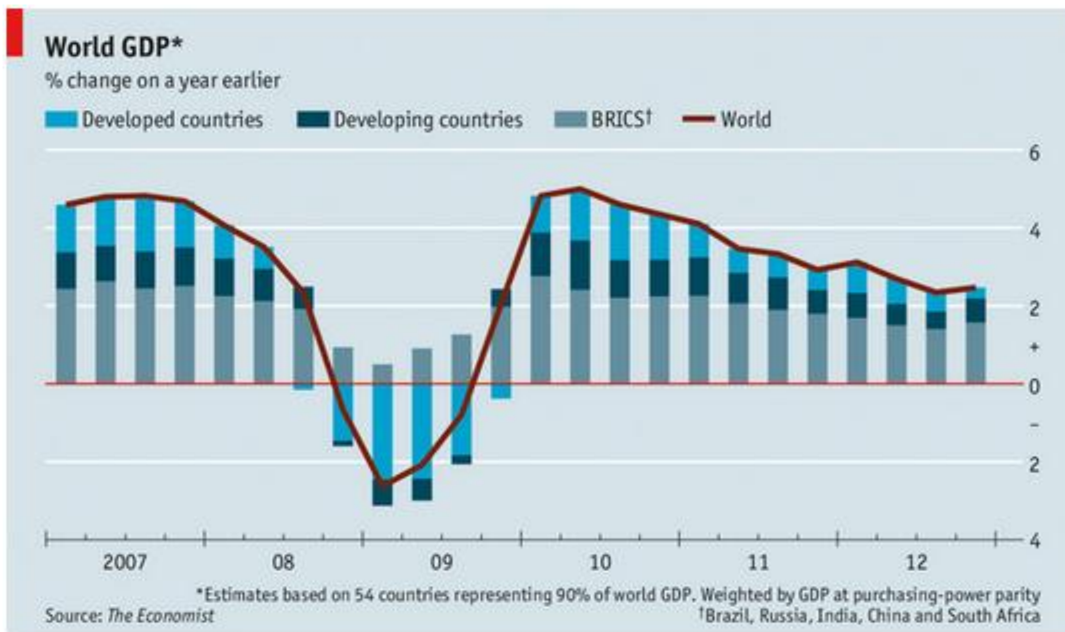


Diagram 1. Economic policies and market forces driving global imbalances (by the author)

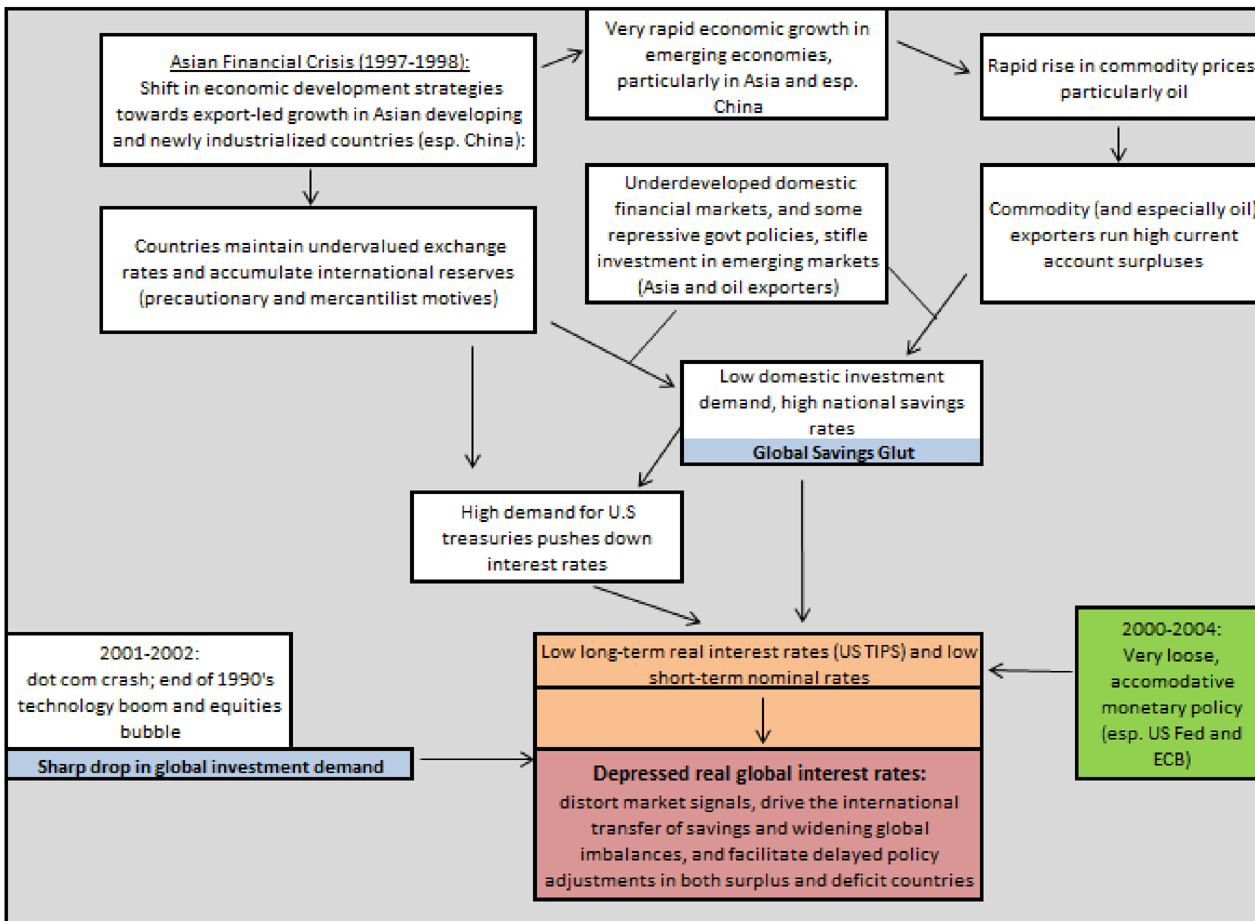


Diagram 2. From global imbalances to global financial crisis (by the author)

Asian emerging economies and commodity-expoters: High CA surpluses, low domestic investment demand, high national savings rates

Asian economies macroeconomic policies; accumulation of US$ reserves

Global Savings Glut

2001-2002: dot com crash; end of 1990's technology boom and equities bubble

Sharp drop in global investment demand

2000-2004: Very loose, accomodative monetary policy (esp. US Fed and ECB)

High demand for U.S treasuries pushes down interest rates

Low global real interest rates

International Savings Transfer from surplus countries

Financial de-regulation + innovation (ARMs; securitization of debt)

European financial institutions regulatory arbitrage to lower capital requirements

Very high demand for US AAA-rated structured debt products

Very large inflows of foreign liquidity into US capital markets

Real estate bubble <---> Credit bubble <---> Equities bubble

Circular & cumulative causation (cf. box A)

Unprecedented levels of leveraging and international exposure to US risk:
Global imbalances and globalized systemic risk

Subprime & Global Financial Crisis

2004-2007: Contractionary monetary policy (esp. US Fed and ECB)

Excessive risk + Predatory Lending + Unrealistic credit ratings for structured debt products

Rising global investment rates, lower savings rates

Declining real estate prices

Mortage Defaults (esp. ARMs) due to interest rate hikes

Global contagion through international financial linkages

Global housing bust

Collapse of US + EU export demand causes aggregate shocks for emerging markets

Box A