# Global Imbalances

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### **Global Imbalances**

The global financial crisis of 2008 has brought the role of global imbalances front and center in the debate on international economic outlook. The presence of large and sustained current account imbalances has led academics and policy makers to ponder over how big a threat these imbalances represent to the global economy. There has been considerable work done on trying to understand the causes of these imbalances, the policy measures needed to correct them and the consequences of these measures to the global economy.

Global imbalances are not new phenomena. Looking at the period from the 80's (Figure 1), we can identify three major phases of global imbalances. In the first phase, during the mid 1980's, the US current account gap reached large proportions of about 1% of world GDP. During this period the counterpart to US deficits were surpluses in Japan and the European Union. It is worth noting that unlike the present period, current account imbalances were largely a feature of the developed economies. The second phase starts in the mid 1990s, with the external deficits of the United States. These deficits were largely driven by the consequences of the East Asian financial crisis of 1997 and the dot-com boom in the United States. The final phase in the 2000's is characterized by the growing surpluses of China and the continued large surpluses from oil and commodity producing countries. By 2008 the combined surpluses of these two groups of countries represented 1.58 percent of world output.

During the most recent phase the problem of current account imbalances has spread out to encompass not just the United States and other G7 countries, but a number of European countries, emerging countries and oil producers, thereby becoming a worldwide phenomenon. As pointed out by Serven-Nguyen (2010), two key features distinguish the global imbalances of the 80's from the ones that we have witnessed in the last two decades--Firstly, the magnitude of the imbalances in the 80's was relatively modest compared to what we have witnessed more recently. Secondly, the external deficits of the United States and other advanced countries in the 80's were largely funded by other advanced countries such as Japan and Germany. In contrast the more recent imbalances of the advanced countries have been funded by emerging markets. This means that the most recent phase of global imbalances is characterized by the "Lucas Paradox," wherein capital flowed from poorer to richer countries. The pre-crises debates largely centered on the sustainability of these current account imbalances and the threats they posed to the global economy.

The broad consensus in the pre-crisis period was that global imbalances were not sustainable.

This was because they reflected macroeconomic imbalances such as exchange rate misalignment among major countries, low savings rates and widened fiscal deficits of current account deficit countries. The correction of these imbalances would necessitate a US current account adjustment, reversal of capital and a major depreciation of the dollar. The general consensus among proponents of this view was that the magnitude of the exchange rate and trade adjustment required was significant and the global economy would be subject to a hard landing.

#### Global imbalances and the crises?

In the wake of the crises, a number of authors have argued that global imbalances were perhaps the single largest contributing factor to the crises and therefore its elimination should be made a global priority. However, the link between global imbalances and crises is tenuous at best and must be treated with some degree of caution.

According to a prominent view, the "global savings glut" arising in emerging markets depressed world interest rates (Figure 2) and led to the formation of the asset price bubble that triggered the financial market crises. However critics have pointed out that the real interest rate is determined by global savings and investment and not the pattern of its geographical distribution. In other words a given world real interest rate is equally consistent with large, small, or the absence of any current account imbalances.

Further, the pre-crises fear that the large external deficits in the United States would make it vulnerable to a sudden reversal in capital flows never really materialized In fact, the worse things became, the more domestic and foreign investors ran for cover to the United States. Treasuries and (contrary to expectations) the US dollar appreciated. During the crisis net capital inflows to the United States were a stabilizing rather than a destabilizing force.

Borio and Disyatat (2011) in an excellent analysis point out that the geographical break down of capital inflows into the United States in the run up to the crises is hardly consistent with the

"savings glut" view. Figure 3 shows that the most important source of capital into the United States was Europe and not emerging markets. Of this a majority of it came from the United Kingdom, which was a country that ran current account deficits and the rest came from the Euro area, whose current account was roughly in balance. The inflows from Europe far exceeded the inflows from China, Japan, and the Middle East and OPEC countries.

The weak link between net capital flows and the global financial crises has led a number of authors to look at gross instead of net positions and flows. There is a growing consensus that dangerous levels of gross assets can build up even in the absence of any net international flows and it is these flows which eventually set off the financial turmoil. Gross flows have risen from about 10% of world GDP in 1988 to over 30% in 2007 (Figure 4).

Broner, Didier, Erce, and Schmukler (2011) document both gross capital inflows (CIF) and gross capital outflows (COD) for the period 1970–2009 for 103 countries. The analysis finds that over the past four decades, the volatility of gross capital flows (CIF and COD) has been large and increasing (Table 1). Importantly, the volatility of net capital flows is much lower than volatility of gross capital flows. This reflects the increasingly positive correlation between CIF and COD. Second, they find that gross capital flows are procyclical: During expansions foreign agents increase their purchases of domestic assets and domestic agents increase their purchases of foreign assets. During crises, especially severe ones, both CIF and COD decline, though CIF tends to fall more.

These findings are quite consistent with Borio and Disyatat (2011), who find that while net capital inflows (current account balances) remained relatively stable in 2008, gross capital inflows and outflows simply collapsed during this period (Figure 5). It was the collapse of these gross flows that essentially triggered the crises. It is also worth emphasizing that much of the drop of these gross flows were largely between the United States and Europe and not between the United States and emerging markets. The inflows from China, Japan and other emerging markets continued during this period and if anything, helped stabilize the overall environment.

Obstfeld (2012) points out that the emerging-market economies have not yet amassed stocks of gross external assets and liabilities compared to those of the richer countries. Figure 6 provides a head-to-head comparison of these two country groups' average asset external exposures (calculated with relative GDP weights). However he cautions that once a threshold level of financial integration is achieved, gross position buildups in emerging markets would be comparable to those exhibited by developed countries. The balance sheets of these countries would then be exposed to huge counterparty risk and leverage, thus increasing their vulnerability to crises.

Gourinchas (2012)' also argues along the same lines by focusing on gross capital flows or positions (instead of net). He takes the argument on gross flows a step further by advocating that one ought to focus on the liquidity of the gross assets and liabilities—not just the magnitudes. He points out that a mismatch between short term liabilities that need to be rolled over and a

country's pledgeble assets could lead to "liquidity imbalances" making a country financially vulnerable.

Acharya and Schnabl (2010) offer a classic study of how such liquidity imbalances triggered off the crises. Surplus countries such as Germany, Japan and Netherlands as well as banks in deficit countries such as United Kingdom generated large gross positions by selling short-term asset back commercial paper (ABCP) to risk-averse investors, predominantly US money market funds, and investing the proceeds primarily in long-term US assets. As a negative shock hit the US economy, banks in both surplus and deficit countries experienced difficulties in rolling over ABCP which helped kick off the global crises in August 2007. It is important to emphasize that this channel would be overlooked if one were to focus on only net capital inflows.

The last few years have demonstrated that liquidity, particularly in times of stress, can freeze up in a hurry and the fact that a country has had access to funds in the past is no guarantee that it will continue to have that access in the future. The point again being that careful attention should be paid to the pattern of gross flows as net flows would not reflect these vulnerabilities.

## **Policy Implications**

The period since the crises has seen the global economy characterized by a dual pattern of growth. On the one hand, the advanced economies that were worst hit by the crises have had a very sluggish recovery. This is in contrast to the emerging markets which have been quick to

resolutely expansionary in the advanced economies. The differential patterns of growth and the record low interest rates have induced large capital inflows into emerging markets. Taylor (2012) points out that there is growing evidence to suggest that in order to prevent the resultant appreciation of the exchange rates, central banks in emerging markets tend to hold their interest rates lower than what would be appropriate for domestic stability. Such a policy makes these countries financially vulnerable and poses a risk to global stability. Borio and Disyatat (2011) suggest that such spillovers and externalities associated with monetary policy in individual countries call for some form of policy coordination.

Central banks also ought to rethink how they should respond to potential asset price bubbles.

Conventional wisdom suggests that monetary policy should not target asset prices as there could be unintended consequences for inflation and growth. However this issue needs to be re-visited. The run up to the GFC was characterized by low and stable inflation and robust growth--the so called "great moderation." Perhaps one needs to focus on maintaining financial stability in addition to inflation and growth stability. Research must focus on the trade-offs that might arise between these objectives. Another area of focus for researchers and policy makers should be to develop tools to assess whether credit bubbles are developing.

Shortage of liquid assets continues to plague the global economic system. The crisis if anything has exacerbated the problem. Emerging markets in their quest for safe assets continue accumulating large amount of international reserves thereby posing a threat to financial stability.

As Gourinchas (2011) points out, the resolution of these so called global liquidity imbalances, which was at the heart of the crisis, is far more important than the consolidation of current account imbalances. In this regard, the systematic use of central bank swap lines and multilateral provision of liquidity under IMF supervision are all steps in the right direction.

One of the root causes of financial crises is that liabilities are often funded by short term debt instruments. These transactions carry counterparty risk and are therefore a threat to global stability. Rogoff (2011) makes the interesting point that government policy actually incentivizes the appetite for debt. Tax systems in many countries favor debt over equity. Central banks have often bailed out debt far more aggressively than equity. Perhaps reducing the reliance on debt and increasing the share of liabilities funded by equity might make the financial system more resilient. Interestingly, the prevalence of equity liabilities is quite marked in India, where government policies and financial market reforms after 1991 heavily favored inward equity investments, but discouraged borrowing via bank deposits or bond issuance. This feature provided a natural cushion against economic shocks and did not provoke an external debt crisis in 2008.

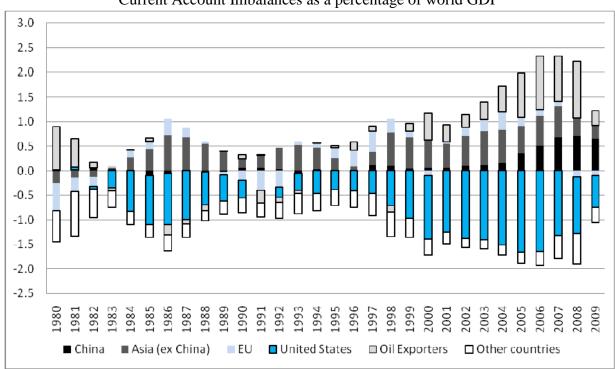
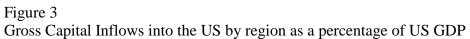


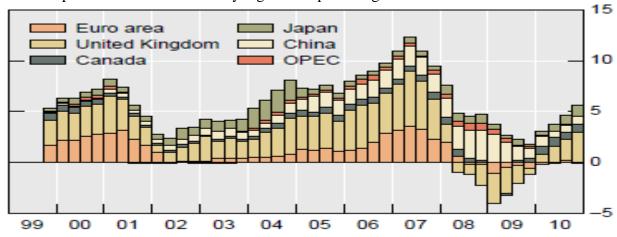
Figure 1
Current Account Imbalances as a percentage of world GDP

Source: Serven-Nguyen (2010)

Figure 2
Real interest rate on Public debt: Long term (10 years) short term (3 months)

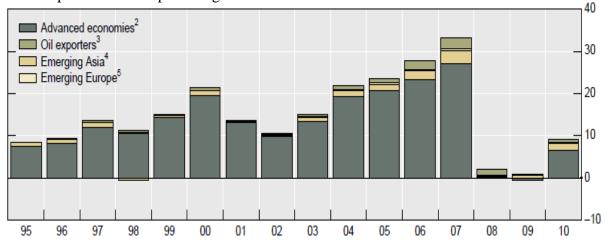
Source: Serven-Nguyen (2010)





Source: Borio and Disyatat (2011)

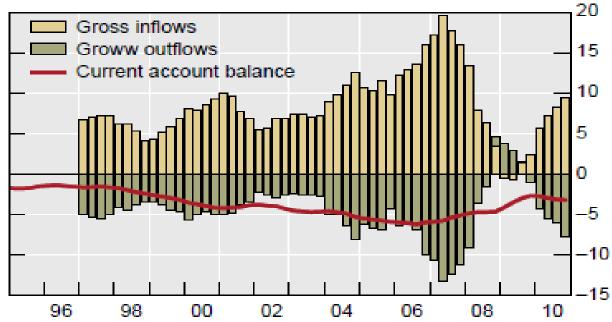
Figure 4
Gross capital flows as a percentage of world GDP



Gross flows equals sum of inflows and outflows of direct, portfolio and other investments. Australia, Canada, Denmark, the euro area, Japan, New Zealand, Sweden, the United Kingdom and the United States. Algeria, Angola, Azerbaijan, Bahrain, Democratic Republic of Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Kazakhstan, Kuwait, Libya, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, Sudan, Syrian Arabic Republic, Trinidad and Tobago, the United Arab Emirates, Venezuela and Yemen. China, Chinese Taipei, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Thailand and the 20 smaller Asian countries. Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

Source: Borio and Disyatat (2011)

Figure 5
Gross Capital flows into US and Current Account as percentage of GDP



Source: Borio and Disyatat (2011)

2.5
2.0
1.5
0.0
Emerging High Income

Figure 6
Average of Gross Assets and Liabilities as a ratio of GDP

Source: Obstfeld (2012)

Table 1
Capital Flows: Summary Statistics

	High-Income Countries		Middle-Income Countries		Low-Income Countries	
	Median	Median	Median	Median	Median	Median
	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.
Net Capital Flows (CIF - COD)	0.64	3.92	1.29	5.62	2.08	5.51
1970s	1.64	2.41	3.37	3.94	3.54	3.09
1980s	1.42	2.71	0.39	5.56	2.71	4.11
1990s	0.87	2.79	0.82	4.23	1.28	4.18
2000s	-0.18	3.60	1.90	3.94	0.56	4.37
Total Gross Capital Flows (CIF + COD)	17.67	15.49	9.31	10.01	6.97	7.17
1970s	9.50	3.62	7.01	5.27	7.92	2.75
1980s	9.10	6.16	1.96	5.95	4.86	3.90
1990s	13.56	9.39	7.80	5.60	7.21	5.56
2000s	32.65	16.70	15.06	8.48	8.41	6.21
Capital Inflows by Foreign Agents (CIF)	8.89	7.81	4.83	6.06	4.07	5.21
1970s	4.73	2.66	5.08	3.07	5.62	2.29
1980s	4.79	3.47	0.83	4.03	3.99	3.37
1990s	7.00	5.54	3.96	4.12	4.43	4.16
2000s	15.16	9.16	5.58	4.96	4.22	3.93
Capital Outflows by Domestic Agents (COD)	8.33	8.05	3.78	5.10	2.87	3.87
1970s	3.43	2.29	3.34	2.96	2.07	1.77
1980s	3.78	3.09	1.40	2.71	0.54	2.06
1990s	6.56	5.32	2.80	3.32	2.54	3.03
2000s	17.71	8.13	6.44	4.86	3.73	3.35
No. of Countries	39		26		38	

The table shows summary statistics of capital flows by both foreign and domestic agents as well as net capital flows and total gross capital flows. The median value of country averages and of country standard deviations of capital flows over trend GDP are shown. The sample period is from 1970 to 2009.

Source: Broner, Didier, Erce, and Schmukler (2011)

#### References

- 1. Acharya, Viral V. and Philipp Schnabl, "Do Global Banks Spread Global Imbalances? Asset-Backed Commercial Paper during the Financial Crisis of 2007-09," IMF Economic Review, 2010, 58 (1), 37–73.
- 2. Broner, Fernando, Tatiana Didier, Aitor Erce, and Sergio Schmukler (2011), "Gross Capital Flows: Dynamics and Crises", CEPR Discussion Paper No. 8591.
- 3. Borio, Claudio and Piti Disyatat, "Global imbalances and the financial crisis: Link or no link?," BIS Working Papers 346, Bank for International Settlements 2011.
- 4. Gourinchas, Pierre-Olivier "Global Imbalances and Global Liquidity" mimeo, (2012), University of Californina, Berkely
- 5. Obstfeld, Maurice, "Gross Financial Flows, Global Imbalances, and Crises" January 2012, Twelfth L.K Jha Memorial Lecture.
- 6. Servén. L and H Nguyen (2010), "Global Imbalances before and after the Global Crisis", World Bank Policy Research Working Paper 5354
- 7. Rogoff, Kenneth, "Global Imbalances without Tears," <a href="http://www.project-syndicate.org/">http://www.project-syndicate.org/</a> commentary/rogoff78/English March 2011. Project Syndicate
- 8. Taylor, John "Monetary policy and the next crises" Wall Street Journal, July 4th 2012, Commentary.