3 On the causes of global imbalances and their persistence: Myths, facts and conjectures

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This article discusses several myths related to the sources, desirability and sustainability of global imbalances, and their future. Higher volatility of economic growth, higher and more volatile risk premium, and demographic transitions towards aging populations and lower fertility rates imply that past patterns of global imbalances became even less sustainable following the end of the illusive great moderation.

Myth: *The dollar standard (i.e., the dominance of the dollar as the global currency) necessitates growing global imbalances, where the US runs current-account deficits.*[1] *Large current-accounts run by the US are not new, the US ran sizeable deficits from the onset of the Bretton Woods system, thereby funding the growing demand for the dollar as a reserves currency.*

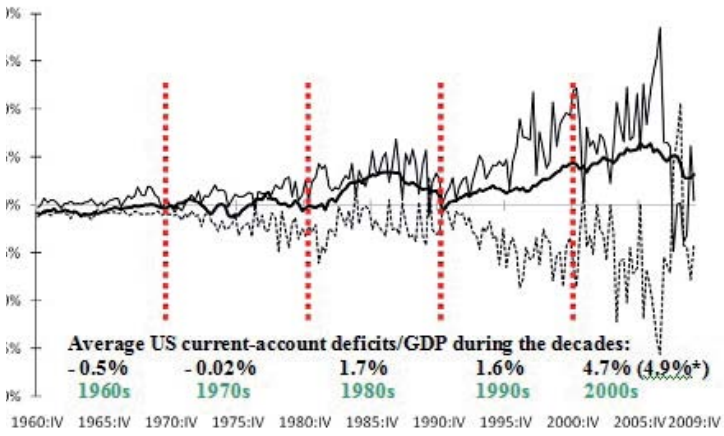
Not really. To illustrate, Figure 1 plots the US current-account/GDP deficit and private flows of capital during 1960-2009. The decade averages of the US current-account deficits/GDP are reported below the curves. During the 1960s, at a time when the dollar was the undisputed global currency, the US current account position was on average close to zero (or running small surpluses). The US current-account deficits started growing in the mid 1980s, a trend magnified during the 1990s, with deficits reaching a peak of 6% in 2006. The figure shows the fallacy of regarding global imbalances as a necessary requisite and consequence of the dollar role as global currency. Yet, the exorbitant privilege associated with the status of the dollar as a global currency (i.e., easy access of the US to foreign funding), the secular decline of public saving due to tax cuts that were not met with public spending cuts, reduction in private savings, and robust US investment induced larger global imbalances in recent decades.

Global imbalances deal with current-account patterns, whereas the dollar standard impacts the US balance of payments. With globalized capital flows, a

1 These concerns are modern incarnation of the "Triffin dilemma," – having the demand for global liquidity met by public asset issuance of one country makes it more challenging to achieve fiscal and external balance while providing an adequate amount of safe assets to the rest of the world. Improper management may lead to deflationary bias if insufficient reserves are provided or accumulation of an unsustainable debt overhang if too many reserves are supplied. See IMF (2009) for further discussion.

single country that provides the global asset could supply reserves to the rest of the world, while investing a similar gross amount in assets abroad and running a balanced current-account. This is vividly illustrated in countries where reserves have been accumulated in the face of strong capital inflows in recent years, without running significant current-account imbalances. Given central banks' preferences for government bonds, external balance would require that in the reserve-currency issuing country (dominated in recent years by the US), either the public sector accumulates foreign assets to balance foreign purchases or the

Figure 1. US current-account/GDP and private flows/GDP patterns, 1960-2010.



* The current-account deficit/GDP of the US during 2000-2007 (excluding the crisis years).

private sector offsets public sector dis-saving through increased net saving.[2]

Conjecture: Figure 1 is consistent with the view that global imbalances were of a second order magnitude at times of limited financial integration, as has been the case during 1950s-1970s. Quite trivially, global imbalances were close to zero with stringent capital controls. The growing global imbalances were the result of the growing financial integration among the OECD countries in the aftermath of the Bretton Woods system, and the gradual financial integration of emerging markets (starting in the 1990s), during decades of secular declines in US net saving (saving minus investment).

Figure 1 also alludes to the potential risk of growing global imbalances: financial integration has often been associated with heightened volatility of private capital inflows and outflows, thereby exposing the sustainability of global imbalances to market sentiments. As the recent years vividly demonstrated, orderly markets are subject to occasional unpredictable vertigos and freezes. Black Monday of 1987 was a small hiccup relative to the crisis that propagated globally from the

2 The reluctance of the global reserve issuing country to follow these options tends to reduce the real interest rates in the reserve issuer. Should the reserve issuer's public sector be unwilling to accommodate the foreign demand, alternative reserve assets could arise.

US during the second half of 2008. Financial integration increased manifold the inter-connectivity of financial markets. Deeper networking of financial markets is good news in stable times, providing the illusion that short-term risk diversification implies long-term risk reduction (see Rajan (2005)).

The growing beliefs in the efficiency of private financial intermediation, and the redundancy of cumbersome public regulations contributed to the acceptance of global imbalances as an efficient allocation. The growing acceptance of global imbalances and US deficits perhaps reflected the belief that "the great moderation" is here to stay, implying that the downside risk of global imbalances is negligible. US was considered to have a "comparative advantage" in consumption and financial intermediation, while China and other emerging markets were considered to have a "comparative advantage" in net savings, in search of outside financial intermediation (Dooley et al. 2003). To recall, the great moderation referred to the drop in volatility and risk premium during the late 1990s and early 2000s. During that period, the risk-free interest rate declined substantially, reflecting a 'savings glut' as the US increased its net dis-saving while Asia increased its net saving (= saving minus investment, see Chinn and Ito (2008)). The remarkable increase in the relative prices of commodities and minerals during the early 2000s resulted in further increases in net savings of oil and commodity exporters, thereby reducing the real interest rate. The lower cost of risk, and lower interest rate, induced larger current account deficits by counties that were restrained from borrowing binges at times of higher interest rates, resulting in gradual build up of growing external liabilities of OECD countries (Portugal, Spain, Greece, US, etc.). In contrast, experience of countries is replete with examples of nations where inflows of capital and easy access to borrowing have not succeeded in delivering sustainable growth, and in due course led to crisis (Argentina in the 1990s, and Spain and Greece being the latest example).

Myth: *Low growth countries are not taking off due to shortage of foreign currency and saving. Hence, inflows of capital inducing larger currency account deficits (or smaller surpluses) would facilitate higher growth of poor countries.*

Not necessarily. Obstacles to growth include barriers to entry of new producers, labour market rigidities, and inflexible economic structures inhibiting financing and the proliferation of new activities. Numerous successful takeoffs were triggered by domestic reforms dismantling these barriers, allowing sizeable efficiency gains associated with rationalising the use of given resources. China's and India's remarkable growth takeoffs are the latest illustration of such factors. More than 90% of the capital dependence of emerging markets has been self financed (see Aizenman et al (2007) and Prasad et al. (2007)). Within a lag of less than a decade, successful takeoffs increase domestic saving, at rates that frequently are more than enough to finance capital deepening, resulting in current-account surpluses. In contrast, numerous countries that experienced inflows of capital and easy access to borrowing have not succeeded in delivering sustainable growth, inflows that led in due course to crises (Argentina in the 1990s, Greece being the latest example).

Myth: *Financial integration is a necessary condition for higher growth rates in developing countries.*

No clear cut evidence support this view. The first few decades of remarkable takeoffs of Japan, Korea, China and India took place during a time of financial repression, with scanty access to the global financial system. While multinationals have been important contributors to growth in several countries (including Ireland and China), Japan and Korea were and remain relatively closed to FDI. Greater financial integration seems to emerge endogenously as a part of the maturing process associated with a successful takeoff after several decades of convergence, possibly facilitating higher growth down the road, at the potential cost of higher exposure to volatility.

Myth: *Deepening financial integration is welfare improving.*

While financial integration is welfare improving in the absence of distortions, financial integration may reduce welfare if it ends up intensifying the cost of pre-existing distortions. A common distortion affecting financial intermediation is the 'moral hazard' and the 'too big to fail' doctrine, whereby large banks and shadow banks are bailed out during systemic crises. Under such circumstances, in the absence of proper banking supervision and proper leverage regulations, financial flows may increase the magnitude of distortions, thereby leading to deeper crises down the road and larger, costlier bailouts. During financial autarky, the resources funding such domestic activities are capped by the domestic wealth and local GDP. In contrast, with financial integration, the resources funding domestic activities are determined by the willingness of foreign parties to finance them. Availability of foreign funds frequently increases the pool of resources supporting domestic distorted activities, at a possible cost of larger external debt overhang, and deeper and more prolonged crisis down the road (Iceland being the latest example of this second best principle). See Aizenman (2004) for literature review.

Conjecture: Had the US been in financial autarky in 2000s, the massive tax cuts of the early 2000s would have resulted in significantly higher real interest rate in the US. To recall, these tax cuts took place at a time when taxes in the US were high enough to induce predictions of repaying the public debt of the US within two decades (sounds like a fairy tale today, but in 1999 the economic outlook for fiscal year 2000-2009 projected repaying the public debt within less than two decades). These tax cuts combined with lower growth rates during the 2000s led to growing US fiscal deficits, at times of declining US private saving, growing inflows of foreign funds, and low real interest rates.

The combination of financial deregulation, proliferation of growing leverage in the housing market, and floating interest-rate mortgages induced higher real estate demand in the US, thereby appreciating the US real estate evaluation, and

encouraging lower saving by households that treated housing capital gains as permanent. Had the US been in financial autarky, the real interest rate during the 2000s would have been higher, mitigating the increase in real estate valuation, and forcing a combination of higher private saving, lower investment, and fiscal adjustment. Related factors played a role in other countries – evidence points out that current-account deficits have been associated with more appreciated real estate valuation in the deficit countries, controlling for conventional factors affecting for real estate valuation (Aizenman and Jinjarak, 2009).

The inflows of capital to the US prolonged the period of low saving in the US, and magnified the duration of the real estate appreciation, deepening the global crisis induced down the road by the growing weaknesses in the US housing market in 2007. Financial distortions in the US were manifested by the growing laxity of borrowing standards, exemplified by the proliferation of mortgages with zero (even negative) down payments. The rise of bundling and securitisation of mortgages reduced the "skin in the game" of mortgage suppliers, changing the business model of mortgage originating banks from risk assessors providing enduring financial intermediation to a commission-based business. In this new environment, profits were determined by the volume of mortgages initiated, and not by its quality (i.e., the successful service of these mortgages). These developments intensified the moral hazard and the exposure to vulnerabilities associated with lower quality of financial intermediation in the US. While all these developments could very well have happened during financial autarky, the resultant real estate appreciation and the duration of the spell of easy borrowing were magnified by financial openness, leading to a deeper, costlier and globalised crisis down the road.

Conclusion: the welfare effects of financial integration and financial innovations follow an inverted U shaped curve – moving too fast towards deepening financial integration without the proper regulatory supervision tends to backfire.

Myth: *Global imbalances caused the crisis of 2008-9.*

Causal associations in macroeconomics are conjectural, at best. Banking and financial crises may happen in closed economies, as they stem from maturity and liquidity mismatches that exist independently of global imbalances. Having noted these caveats, the discussion above suggests that global imbalances played a role in prolonging the pre-crisis period. The pre-crisis period was a time when easier availability of finance in the US and prevalence of financial deregulation facilitated a longer spell of growing fiscal imbalances and easier real estate financing, which in turn contributed to a longer duration of real estate appreciation, implying a deeper crisis down the road. What could have been a local crisis in the US during financial autarky with global transmission effects operating via relatively slow trade linkages, turned out to be a major global crisis in a financially integrated world, propagated globally through trade and fast moving financial channels (see Obstfeld 2010)).

Myth: *The return to global imbalances once the global recovery will take place is inevitable. Current-account trends are persistent, and don't change overnight.*

The US current-account/GDP deficit was halved during the crisis, dropping from about 6% in 2006 to 3% in 2009. Economic recovery in the US would increase investment, with uncertain effects on saving. The relaxation of forced private saving due to reduced access to borrowing during the peak of the crisis would reduce private saving, probably leading to larger US current-account deficits/GDP in future quarters. The ultimate intermediate-run trends of global imbalances would be determined by complex factors, including the possibility of fiscal adjustment needed to confront the growing fiscal imbalances, and the degree to which a shallow recovery will lead to higher private saving in order to replenish declining wealth.

The prospects for global imbalances

Looking forward, the prospect of sustaining the pre-crisis patterns of global imbalances after the crisis is dim. To recall, prior to the global crisis, the Chinese growth rate accelerated to 10% a year, at times when its current-account/GDP surplus increased in tandem to about 10%, and the US current-account deficits was about 5%. These trends were unsustainable - sustaining growth by China at rates largely exceeding that of all other countries, supported by large Chinese current account/GDP surpluses (of the 10% growth, 10% surplus variety) implies that all other countries should increase over time their current account/GDP deficits to match the Chinese surpluses (see Aizenman and Sun (2010) and Edwards (2007)). High debt overhangs have been associated with crises throughout history, and there is no reason to expect the 'end of history' (see Reinhart and Rogoff (2008)).

The persistence of current-account patterns does not imply that these patterns are unchangeable when market and political forces induce a rapid adjustment. To illustrate, South Korea made more than 10% adjustment of its current-account/GDP ratio within two years following the 1997-8 crisis. Similar adjustment was experienced in numerous countries forced by sudden-stop crises to adjust abruptly. This in turn suggests that countries experiencing current-account surpluses (China, Germany), or countries deemed as safe havens (the US) are subject to less abrupt changes in their current-accounts. Yet, political changes and crises would impact these countries as well.

After running close to a balanced current-account from 1960 to 1982, the US increased gradually its current-account/GDP deficits to 6% in 2006. This took place at a time when the illusive "great moderation" and the sharp decline in the price of risk allowed the market to take stock of rising global imbalances. The current global crisis illustrated that the spell of great moderation was a transitory hiatus. The end of the global moderation has profound implications on the future of global imbalances.

Prolonged global imbalances expose the global economy to greater vulnerabilities, as they increase the external debt of the deficit countries. Higher debt increases the odds that future volatility associated with spells of lower economic growth rates, or higher real interest rates would lead to sovereign debt crises.[3] The end of the illusive great moderation implies that countries should be more vigilant in preventing prolonged global imbalances that might magnify future instability. Moreover, aging populations at times of lower birth rates would impose future challenges on countries running current-account deficits. While the current-account deficits of countries like Ireland, Spain and others were viewed as sustainable during the era of great moderation, the renewed volatility has increased the riskiness of these countries, calling for an adjustment that would mitigate the prospect of future costly crises.

It is tempting to argue that financial markets that underestimated the risk of current-account deficits, abruptly switched to overestimation of these risks (see the recent experience of Greece, Portugal and Spain). Yet, a more constructive interpretation of the recent events is that these countries serve as the "canary in the coalmine of global imbalance." In the absence of proper adjustment in the next decade, the fiscal trajectory of the US and Europe are unsustainable. The low real interest that prevailed in the US during the past decade delays the time when market pressure would induce adjustment, at the cost of prolonging the illusion that global imbalances are sustainable and desirable. Once the real interest rate facing the US reaches levels comparable to the late 1990s, the rapidly growing flow costs of serving the US public debt/GDP and its external debt/GDP may lead to a funding crisis with adverse global ripple effects. Short of finding the political will to start the needed adjustment at times of low real interest rates, countries like the US may need a crisis to put in motion the needed fiscal adjustment. The choice facing the US in the next decades is stark. Either there will be an earlier internal adjustment under more controlled conditions, or there will be a deeper adjustment induced by a future funding crisis.

Further readings

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3 This follow from the observation that the flow cost of keeping the external debt/GDP constant equals (real interest rate – economic growth) times (external debt/GDP). See Alcidi and Gros (2010) for further discussion.

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Joshua Aizenman joined the faculty at UCSC in 2001 following eleven years at Dartmouth College, where he served as the Champion Professor of International Economics. He served as the Presidential Chair of Economics, UCSC, 2006-2009. His research covers a range of issues in the open economy. Joshua also serves as a Research Associate for the National Bureau of Economic Research. Other affiliations have included teaching and research positions at the University of Pennsylvania, the University of Chicago Graduate School of Business, and the Hebrew University in Jerusalem. Consulting relationships include the International Monetary Fund, the World Bank, the Inter-American Development Bank, and the Federal Reserve Bank of San Francisco