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24 March 2019

This paper examines the increasing cross-border flows of capital involving developing and emerging economies in the past few decades. The discussion challenges the traditional economic theories based on net capital flows and deficits in current accounts to explain international borrowing by developing countries, and on the current account imbalances approach to explain financial crises. We argue that the increasing involvement of the private sector in developing countries' external debt and the fact that the public sector, previously reliant almost entirely on official credit, has become able to access private debt markets, reflect the increasing integration of developing countries into the global financial system, and this process has particular features. A closer look at data on gross capital flows reveals that net capital flows neither explain nor capture this global financial integration.

Growth of international finance and emerging economies: Elements for alternative approach^{*}

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Abstract

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Keywords: developing and emerging economies, private Non-Guaranteed external debt, cross-border flows, financial globalisation, Borio and Disyatat

JEL Classification: F3, F6, G1, G3, H6

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1. Introduction

Different parts of the world engage with each other through trade and payments and through cross-border capital flows. The first of these lies within the domain of trade and is beyond the scope of this paper.

Cross-border capital flows go mostly between Europe and the other OECD countries whose financial systems are steadily being integrated (Borio and Disyatat 2011; Lane and Milesi-Ferretti 2008; Truman 2009; Shin 2009), not only in the sense of rising volumes of cross-border assets and liabilities, but also in rising cross-border ownership and operation of banking and financial institutions. However, in the past few decades there has been an increase in Private Non-Guaranteed external debt (PNG)¹ in developing countries and emerging economies, reflecting the increasing cross-border flows of capital as well.

In the past, the growth of cross-border liabilities was associated with borrowing to finance trade deficits. That is, the traditional literature on current account balances, which focuses on net capital flows, associates external debt in emerging and developing countries with deficits in current accounts, and cross-border capital flows with global current account imbalances. However, in a world of huge and free capital flows, the external debt in emerging and developing countries is no longer directly associated with deficits in their current accounts.

Following a phenomenon interchangeably called financial integration or financial globalisation, where there is an increasing integration of different domestic financial markets within international financial markets, resulting in greater mobility of financial assets, developing countries, since the turn of the century, have experienced a surge in private capital flows, which, together with the current account surpluses, have their mirror image in the accumulation of foreign exchange reserves. As a result, cross-border asset positions in these developing countries have correspondingly increased, with the share of portfolio liabilities increasing and that of non-portfolio debt liabilities decreasing. This indicates that the current account position only partially explains the patterns of indebtedness of developing countries, and that the growing integration into the global financial system increases their exposure to portfolio investment that may raise different types of financial stability concerns and expose their economies to different factors driving these capital flows.

This paper argues that the increasing involvement of the private sector in developing countries' external debt and the fact that the public sector, previously reliant almost entirely on official credit, has become able to access private debt markets, reflects the increasing integration of developing countries into the global financial system. The discussion also highlights the connection between the capital flows towards these economies and factors such as the international monetary cycle. Further, a closer look at the gross capital flows data reveals that net capital flows neither explain nor capture this global financial integration. Finally, the paper stresses that an analysis by regions masks the large volume of capital and PNG debt flows which mostly concern only a few countries in these developing regions.

¹ PNG debts are external obligations of private debtors that are not guaranteed for repayment by a public entity.

2. Can global imbalances in current accounts explain a country's cross-border financing activity?

The traditional literature on current account balances, which focuses on net capital flows, associates external debt in emerging and developing countries with deficits in current accounts, and cross-border capital flows with global current account imbalances.

The current account balance provides the link between foreign debt sustainability and economic development. According to standard neoclassical models, international borrowing by developing countries should be regarded positively for two main reasons. Firstly, developing countries can finance development with foreign savings. By definition, these countries have lower capital stocks and lower saving rates, resulting in higher real interest rates and lower investment. Importing capital from richer countries allows lucrative investment opportunities to be financed at lower interest rates and provides a mutually beneficial arrangement; and a "country's resources for external debt servicing each period can be measured by its trade surplus" (Cooper & Sachs, 1984, p. 5). From a long-term perspective, the solvency requirement implies that the discounted value of future trade surpluses must be equal to the current foreign debt. A socially optimal borrowing strategy is to borrow until the marginal product of capital is equal to the world interest rate.

The second benefit of international borrowing comes from the intertemporal approach to the current account, which sees the balance of payments as determined by forward-looking investment and saving decisions (Obstfeld & Rogoff, 1994). Intertemporal utility out of consumption maximisation gives a result similar to the permanent income theory of consumption: consumption is a stable function of permanent national cash-flow, defined as the discounted sum of future total output minus investment and government expenditure (Ghosh & Ostry, 1995; Sachs, 1982). Current accounts are therefore used as a buffer against temporary shocks in national cash flows. Within this framework a temporary negative shock in national output will not affect the country's permanent cash flow, thus leaving current consumption unchanged. As a result, the country borrows to smooth consumption, due, for example, to a permanent productivity shock, thus running a current account deficit.

In either case, the current account imbalances and the resulting accumulation of foreign debt need not be a cause of concern, as developing countries only borrow from abroad to either finance investment by exploiting the lower cost of foreign capital or to try to smooth consumption in anticipation of higher future incomes. The corresponding policy view, known as the Lawson doctrine,² maintained that, so long as current account deficits originated in the private sector, the resulting liabilities were hedged in the private sector and therefore are not a cause for policy intervention.

Empirically, however, the balance of payment and currency crises that hit emerging and developing countries in the early 1980s and then again in the late 1990s challenged this consensus. Authors began to question the relevance of the intertemporal approach to the current account and the associated Lawson doctrine, and consequently current account deficits came under closer scrutiny.³ A historical evidence of current account deficits and their association with crisis were shown through the works of Milesi-Ferretti and Razin (1998) and Edwards (2001), for

² From the name of Nigel Lawson, UK Chancellor of the Exchequer in the 1980s, who first expressed this view.

³ For more details see Reisen (1998).

instance. Current accounts were deemed sustainable if they were consistent with the solvency requirement, i.e. if they implied a long-run stable ratio of external liabilities to GDP (Edwards, 2001; Milesi-Ferretti & Razin, 1998; Reisen, 1998). Further, the existence of deficits and their reversal as a result of a sudden stop in net capital flows were theorised as the canonical crisis mechanics (Calvo, 1998).

The discussion on current account deficits, or lack thereof, remained a central research topic in the 2000s. The “capital flow puzzle” literature, for example, highlights the fact that in net terms capital flows uphill from developing countries to advanced countries (Gourinchas & Jeanne, 2007; Kose, Prasad & Terrones, 2003a; Prasad, Rajan & Subramanian, 2007). Obstfeld (2012a) argues for a policy of monitoring current accounts, as credit booms show a relationship between current account imbalances and financial crises. Kose, Prasad and Terrones (2003b) document that financial openness, which was supposed to allow countries to fully exploit the consumption-smoothing function of current accounts, seems to be positively associated with *higher* consumption volatility, especially in lower-income countries. Blanchard and Milesi-Ferretti (2009) closely relate the development of global current account imbalances to the build-up and evolution of the global financial crisis, and suggest that their further reduction is a necessary condition of the post-crisis economic recovery.

While sometimes maintaining opposite opinions on the importance of current accounts for financial and economic stability, the standard critiques of neoclassical models of international borrowing by developing countries summarised above seem to share a common belief: the current account is the key driver of changes in foreign debt and foreign liabilities in general. The focus therefore should be on *net* external liabilities, just as the current account focuses on *net* capital flows. This view has, however, been challenged by both empirical evidence and theoretical arguments linked to the trends of financial globalisation.

The path-breaking work of Lane and Milesi-Ferretti (2001) and subsequent related works (Lane & Milesi-Ferretti, 2003, 2007, 2008) document that the expansion of cross-border asset holdings since 1996, and in the 1990s in particular, has been unprecedented and, while it occurred mostly between advanced countries, emerging and developing economies have also experienced an increasing degree of financial integration. This trend has given rise to a series of empirical regularities. Firstly, in general, gross cross-border holdings and financial flows are several orders of magnitude bigger than their corresponding net figures (Brunnermeier et al., 2012; Obstfeld, 2012b). Secondly, the accumulation of foreign assets has increased the importance of capital gains and losses on international investment positions (Lane & Milesi-Ferretti, 2007).⁴ Thirdly, emerging and developing countries have accumulated more diversified liabilities – with more private debt and equity-like liabilities as opposed to the past concentration on public debt liabilities – as well as accumulating external assets, primarily in the form of foreign exchange reserves by central banks. Overall, their net foreign asset position seems to have improved in the decade preceding the global financial crisis (Lane & Milesi-Ferretti, 2007).

Alongside these empirical observations, ‘new’ theoretical arguments have been proposed in favour of focusing on gross rather than net flows and positions (Borio & Disyatat, 2011; Broner, Didier, Erce & Schmukler, 2011; Bruno & Shin, 2013; Johnson, 2009). Borio and Disyatat

⁴ Such ‘valuation effects’ have been the subject of a vast literature seeking to analyse their role as an alternative balance of payment adjustment mechanism. See, for example, Cavallo & Tille (2006), Devereux & Sutherland (2010), Gourinchas & Rey (2005).

(2011) argue that current accounts, by definition, only measure the transactions that relate to trade in goods and services and income transfers, while all other asset transactions are excluded. In their view, this arises out of confusion between savings – unspent income – and financing – a cash flow concept. Investment, like most economic activities, does not require savings but rather financing, which can be found domestically or internationally. In the latter case, it generates a cross-border money flow as a result of which an institution in the lending country will have a claim (a loan asset) on the borrower and the borrower will have a claim on the lender (a bank account credit, which can be transferred to other agents). As a result, current accounts are not necessarily tied to any specific gross flows or specific domestic activities. The analysis of international financial relations focusing on the current account is, therefore, unjustified.

Saving-investment balances, current accounts and net capital flows analysis reflect only a small part of the global financial flows. Very often, gross flow needs bear no relationship to the net flows in the current account balance and are generally much larger than the latter, reflecting in part the myriad of ways in which expenditures are ultimately financed. In this sense, based on the inter-temporal equilibrium approach to current account as formalised in the 1990s by Obstfeld and Rogoff (1995), the current account framework analysis of the origin and direction of financing, with surplus countries lending to deficit ones, relies on identities that track resource flows, but are silent about their underlying financing (Borio & Disyatat, 2015, pp. 4–5).

Furthermore, the current account balance of payment framework places the foreign exchange reserves as a subcomponent of gross outflows and current account surplus is frequently tied to accumulation of foreign reserves. However, in general, this is an arbitrary match, as gross flows typically exceed net flows and the accumulation of foreign exchange reserves is generally a purely financial transaction. The accumulation of foreign reserves is the result of countless domestic players acquiring foreign assets at any given point in time for different reasons⁵ and, empirically, countries running current account deficits do accumulate large amount of foreign reserves (Borio & Disyatat, 2011, pp. 9-12). Therefore, it is wrong to assume that it is ‘necessary’ to have a current account surplus for reserves accumulation or a current account deficit to finance investment internationally.

Finally, Borio and Disyatat (2011, 2015) note that when assessing capital flows, and more specifically global financing patterns, it may be necessary to move away from the residency principle, which underlies the balance-of-payments statistics, to a perspective that consolidates operations of individual firms across borders.

These arguments inspired new theoretical and empirical research into the dynamics and consequences of gross capital flows. For example, both gross inflows and outflows typically move pro-cyclically, and crises tend to involve sharp reductions in both (Broner et al., 2011). Sudden stops of gross flows, whether or not resulting in net sudden stops, may be very damaging to the economy (Cavallo, Powell, Pedemonte & Tavella, 2013). Financial vulnerabilities are largely related to gross capital flows and the salient trends in international banking activity, which, in turn, is largely unrelated to – or, at the least, not captured by – global current account imbalances (Borio & Disyatat, 2011).

⁵ The empirical evidence shows that the accumulation of foreign reserves is undeniable and unprecedented in emerging markets. Nevertheless, the debate over the reasons and drivers behind this accumulation is still controversial and can be variously explained. See Bussière & Mulder, 1999; Nowak, Hviding, & Ricci, 2004; Paineira, 2009; Reinhart & Reinhart, 2008; Rodrik, 2006.

The analytical emphasis on gross flows and cross-border holdings, along with the stylised facts of financial globalisation, suggest a different line of inquiry into developing and emerging countries' external financing needs. Alongside traditional indicators, such as current accounts and trade balances, the evolution of developing and emerging countries' external debts should be analysed in relation to their integration in the global financial system and changes in the maturity structure of that debt, reflecting refinancing and hedging requirements independent of any current trade imbalance. Consequently, any assessment of the vulnerability of such external positions must take into account the characteristics of such integration, which may raise issues other than the common balance of payments vulnerabilities.

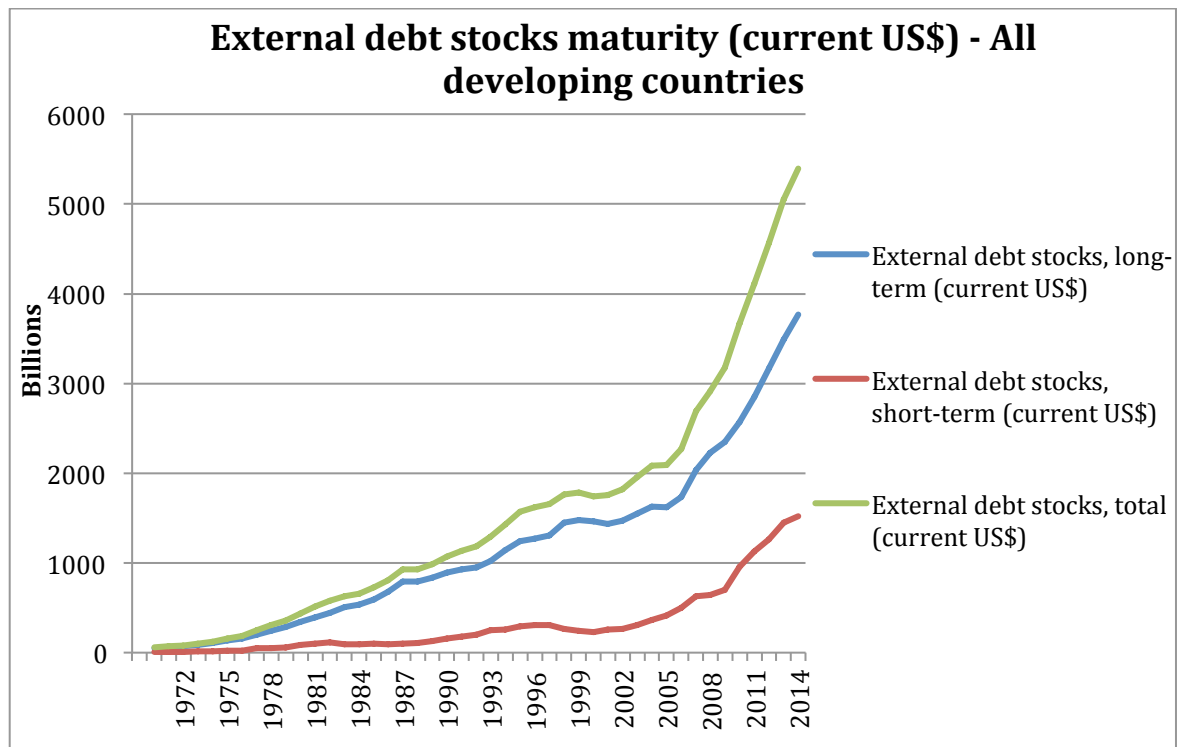
3. External debt – developing countries overall picture

3.1 Trends in external debt

The data below show the external debt stocks of developing countries growing steadily since the 1970s. After the year 2000, the rate of growth increases and debt is accumulated at a much faster rate and is largely long term⁶ (Figure 1). One important feature of this growth is the sharp increase in the external debt stock of Private Non-Guaranteed debt (PNG) after 2002 (Figure 2). This reveals an interesting trend. While, during the 1970s and 1980s, external debt accumulation was mainly through the public sector, in the early 1990s the private sector gradually began to borrow, and since the mid-2000s, at a rapid pace.

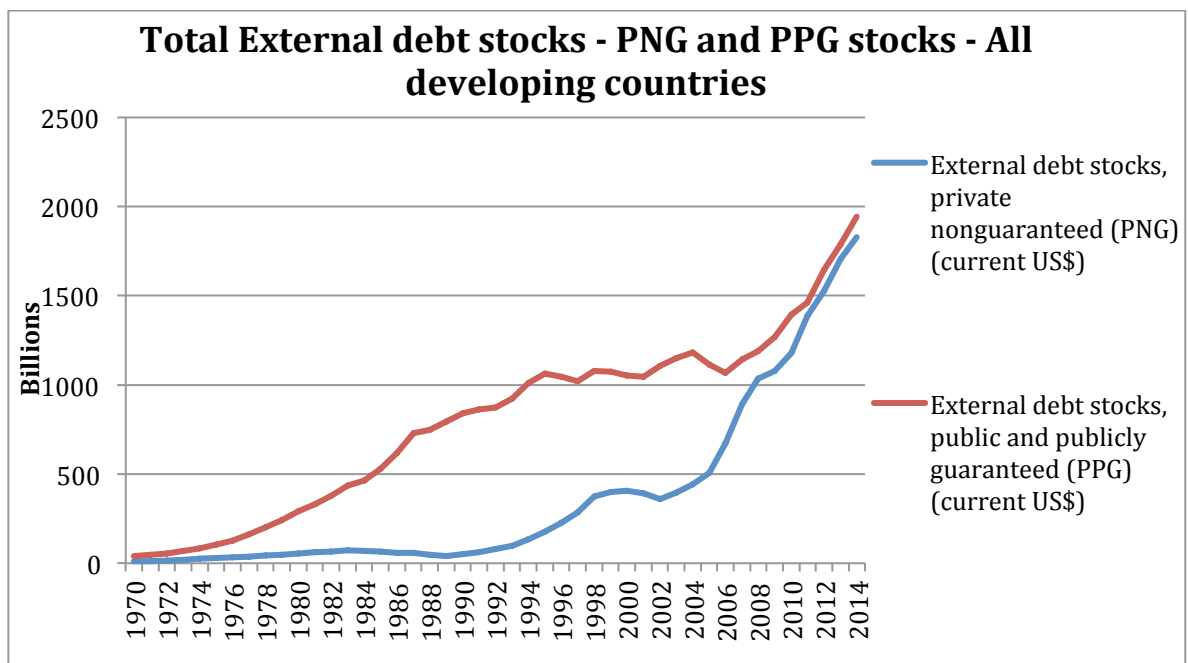
⁶ Long term private and public debt has an original or extended maturity of more than one year and that is owed to non-residents by residents of an economy and repayable in currency, goods, or services. (IDS, 2019)

Figure 1: External Debt by Maturity



Source: World Bank's International Debt Statistics (IDS)

Figure 2: Share of the Total External Debt



Source: World Bank's International Debt Statistics (IDS)

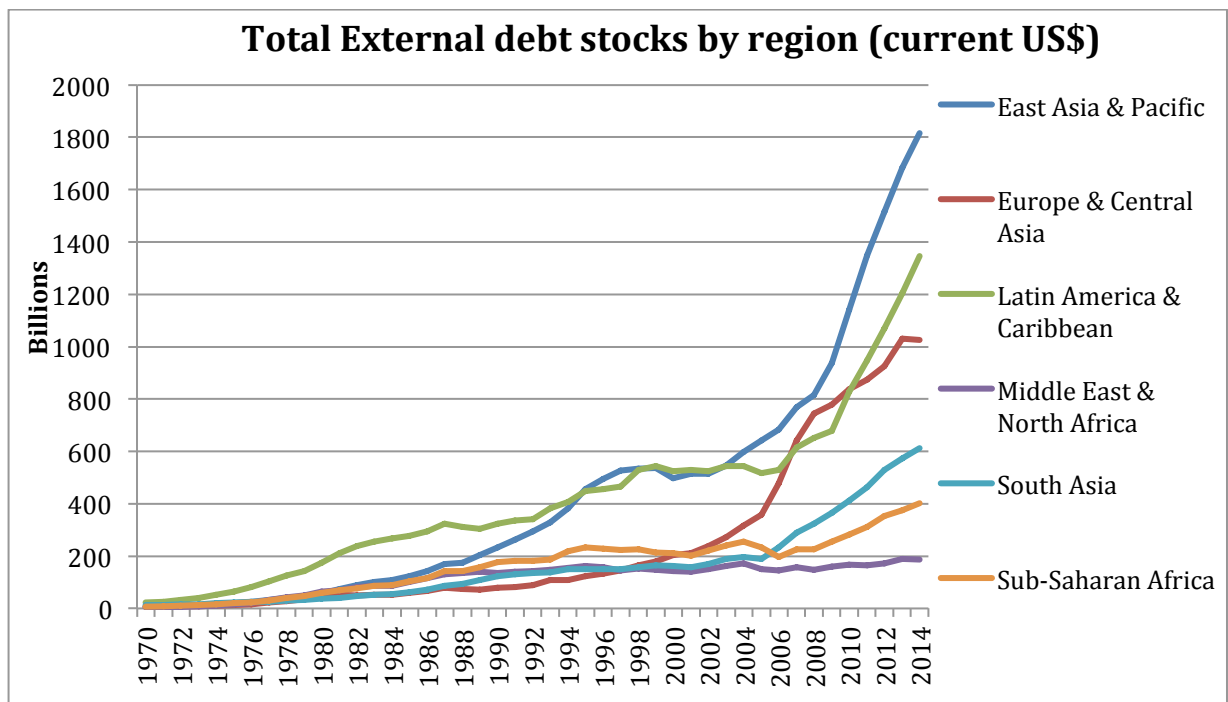
This tendency is confirmed when exploring the different regional dynamics (Figure 3).⁷ Historically, Latin America and the Caribbean (LAC) used to have the largest external debt stocks. Nevertheless, this has been rivalled in the past decade by the rise in external debt in Eastern Europe and Central Asia (ECA) and East Asia and the Pacific (EAP). Sharp increases in external debt stocks are also noted for South Asia (SA) and Sub-Saharan Africa (SSA) regions from 2006 onwards.

Contrary to what might have been expected, the external debt accumulation in all regions has continued apace post-2008, with the three largest debtor regions presenting external debts in excess of US\$1 trillion. The different regional dynamics can also be explored when considering, in absolute terms, the maturity of external debt. All regions but EAP present a majority of long-term external debt. LAC, ECA and EAP have the largest long-term external debt stocks, all of which have grown rapidly within the last decade. SA and SSA have also seen fast accumulation of long-term debt since 2006, albeit their totals are significantly lower. The Middle East and North Africa (MENA) region's long-term external debt has remained roughly constant (Figure A1 in appendix).

SA, SSA and MENA have a very small stock of short-term debt, which, especially in the cases of SSA and MENA, may be explained by the fact that historically the main component of the external debt has been official bilateral and multilateral debt. LAC, ECA and EAP have been accumulating short-term debt at a faster pace since 2007, in particular the EAP region whose fast pace began after 2000 and has become even faster since 2008 (Figure A2 in appendix). The EAP particular case *may* be related to international investors looking to place their money elsewhere in the midst of the global financial crisis. However, as the increase has been sustained since 1990, despite the steep drop during the crisis in 1997/8, it is reasonable to assume that the short-term debts are associated with trade credits as well.

⁷ **LAC:** Argentina, Belize, Bolivia, Brazil, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Lucia, St. Vincent and the Grenadines, Venezuela, RB, American and Caribbean. **ECA:** Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyz Republic, Macedonia, FYR, Moldova, Montenegro, Romania, Serbia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan. **EAP:** Cambodia, China, Fiji, Indonesia, Lao PDR, Malaysia, Mongolia, Myanmar, Papua New Guinea, Philippines, Samoa, Solomon Islands, Thailand, Tonga, Vanuatu, Vietnam. **SA:** Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka. **SSA:** Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Dem. Rep., Congo, Rep., Côte d'Ivoire, Eritrea, Ethiopia, Gabon, Gambia, The Gambia, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe

Figure 3: Total External Debt Stock by Region



Source: World Bank's International Debt Statistics (IDS)

In terms of external debt components when considering each of the six regions, the general tendency, that is, the sharp increase of the external debt stock of PNG debt after 2002, is confirmed apart from in MENA where PNG is close to zero and the bulk of the external debt is bilateral debt, with an increasing multilateral component.

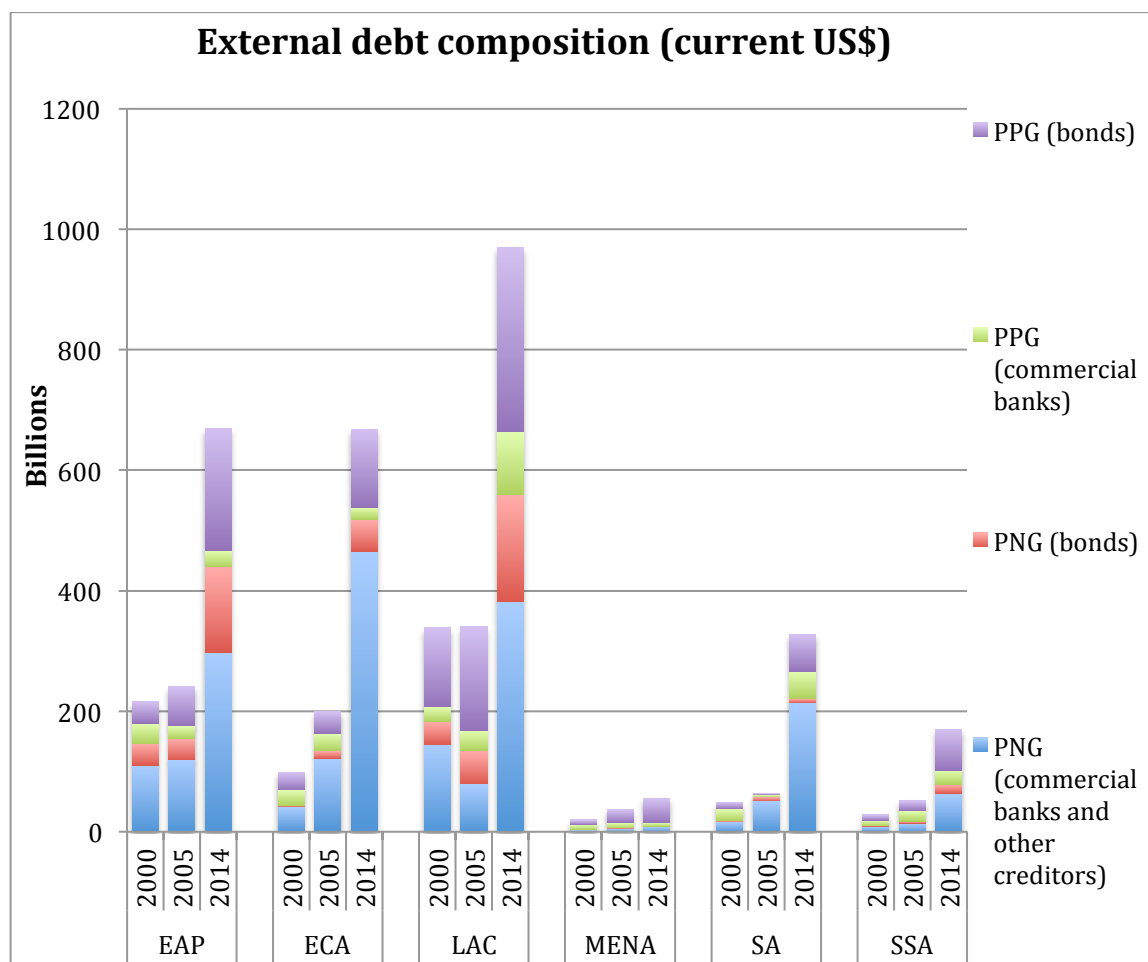
Another important change is that, historically, particularly in ECA, the majority of the external debt used to be (as it was for the other regions) owned by the public sector and, until 1996, external borrowing by the private sector was negligible. However, from 1996 onwards PNG began to rise and since 2004 the private sector's external borrowing has surpassed that of the public sector, to the extent that it was almost double its size in 2012. The public sector's external debt was also historically dominant in EAP, but the PNG started to grow rapidly in 2002 and by 2012 it had surpassed the Public and Publicly Guaranteed (PPG) debt.

LAC and SA have both experienced a sharp increase in private sector borrowing, although the public sector still owns the majority of the external debt. In LAC, the faster pace of the private sector borrowing started in 2005, and has become much more rapid since 2009. In SA, the private sector borrowed little internationally up to 2000. However, since 2005, there has been a sharp increase in private sector borrowing, and, unlike the other regions, an almost similar increase in the public sector's external borrowing.

In SSA, the external borrowings of the private sector had been negligible until 1995, probably because the ability of the private sector to borrow in the capital market was close to zero. However, a small increase was noted in 1995 and a recent steeper increase has been visible since 2006. In this region, historically, the largest component of the external debt has been official bilateral and multilateral debts, although they have slightly decreased in importance.

Figure 4 depicts a summary of these main tendencies in each region.⁸

Figure 4: External Debt Composition by Region



Source: World Bank's International Debt Statistics (IDS)

3.2 Trends in debt sustainability⁹

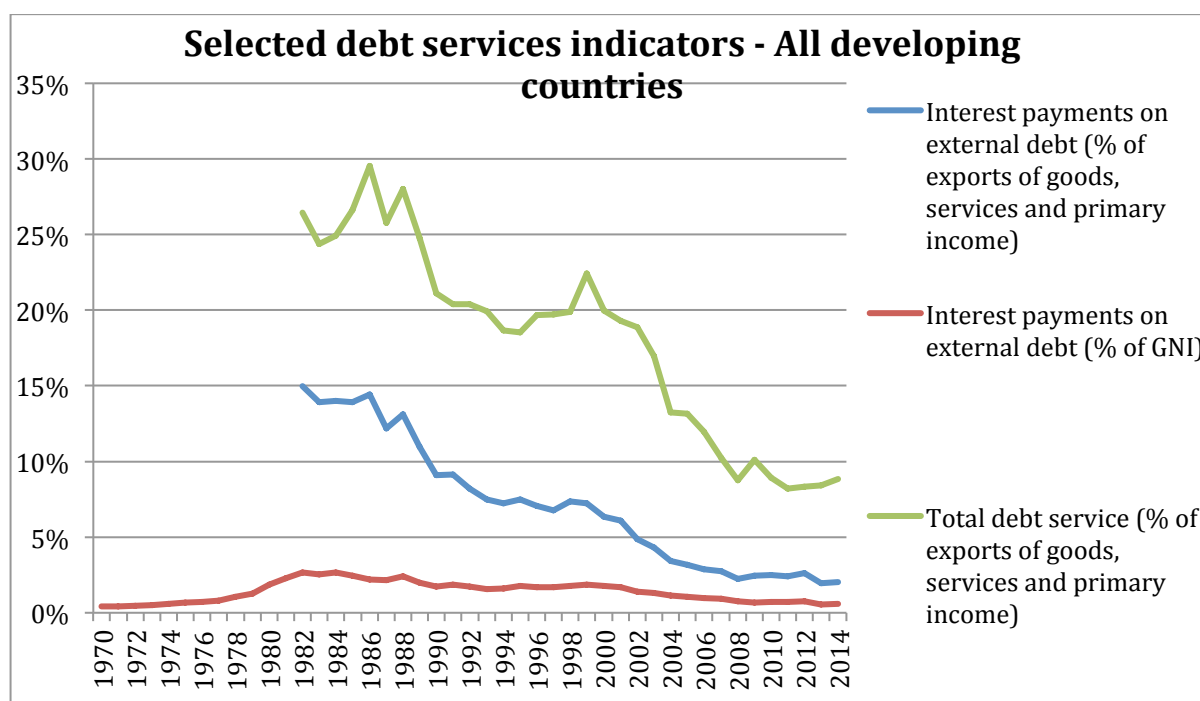
Surprisingly, debt indicators such as the interest payment on external debt as a percentage of export of goods, services and primary income, and interest payment on external debt as a percentage of GNI have, in aggregate, improved (Figure 5). This recent history of external debt characterised by a generalised improvement in sustainability has been closely related to debt relief programmes, such as the Highly-Indebted Poor Countries (HIPC) initiatives and the Multilateral Debt Relief Initiative (MDRI) (IMF, 2018), which have played their part in improving debt servicing capabilities of developing countries. It should be noted, however, this is

⁸ For a detailed analysis of the external debt components in each region since the 1970s, including official multilateral and bilateral creditors, see Bonizzi, Laskaridis and Toporowski (2015a), pp. 11–26.

⁹ There are no internationally accepted benchmarks for assessing debt sustainability; over time different methodologies for criteria and thresholds have been used such as the enhanced Highly-Indebted Poor Countries (HIPC) initiative or the Debt Sustainability Framework (DSF). Although the criteria of the internal financial institutions (IFIs) are not without problems, this paper utilises the benchmarks of the HIPC initiative and DSF to compare debt indicators across regions.

more noticeable on an aggregate level.

Figure 5: Selected Debt Service Indicators - All Developing Countries



When considering debt indicators to assess the liquidity of borrowers under the HIPC initiative and Debt Sustainability Framework (DSF), the total debt service to export, service and primary income ratio, defined by HIPC as being sustainable at 15-20%, has been below 20% since 2006 for all regions except for ECA (Figure A3). The DSF states that debt service on external debt, that is, the ability of the government to repay external debt from domestic resources (the budget service ratio), should not be more than 25% of the domestic budget revenue and, since 2007, this has shown a downwards tendency for all regions except Emerging and Developing Europe¹⁰ where the indicator has skyrocketed. On the antipodes, the MENA region has, since 2004, been consistently below threshold. Overall, after 2012, only MENA, LAC and SSA have managed to stay below the threshold (Figure A4). Therefore, while growth increased, payments (as a share of income) decreased, and the traditional methods of sustainability assessment paint a positive picture of the situation.

In sum, it is fair to conclude that under the HIPC and DSF benchmarks, with the exception of ECA, the regions have been quite sustainable, especially after 2004.

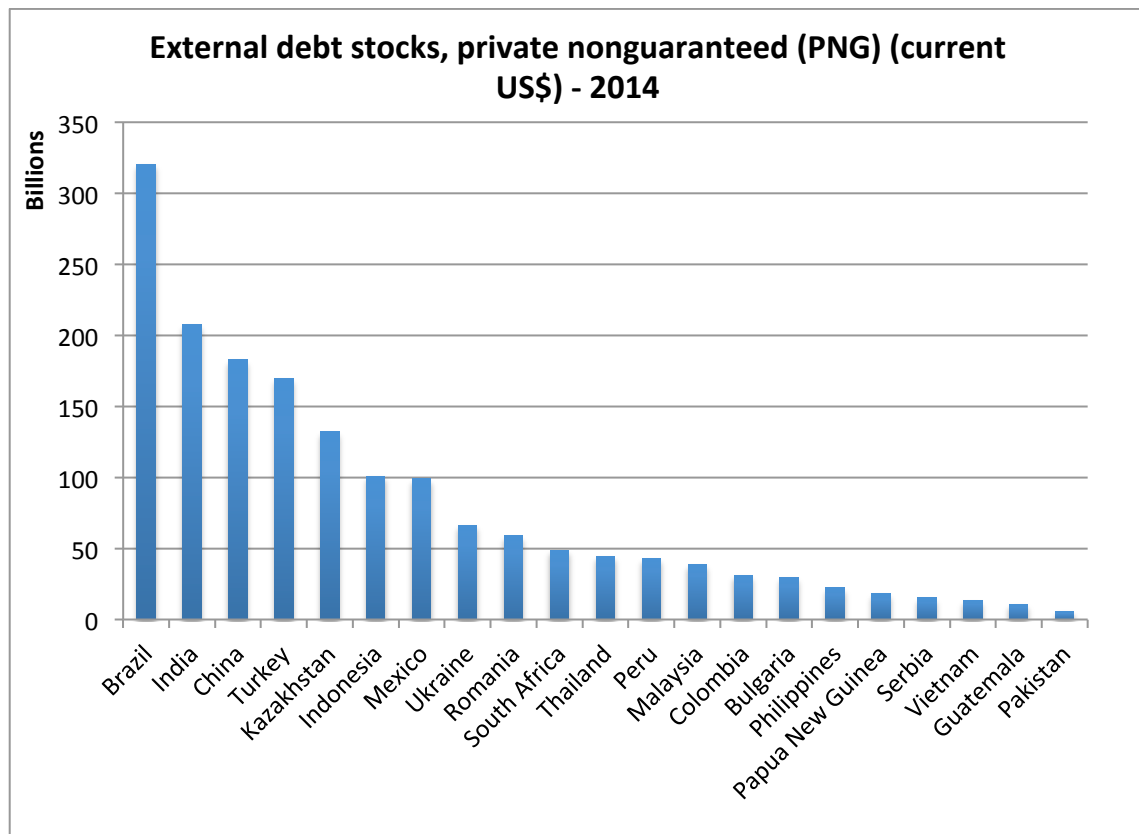
3.3 Concentration of debt

Although the scenario depicted does identify various trends in the external PNG debt of developing countries, the diversity cannot be overstated. The ECA and EAP regions, where PNG

¹⁰ Starting with the April 2014 World Economic Outlook Database, the Central and Eastern Europe and Emerging Europe regions were renamed Emerging and Developing Europe.

has surpassed the PPG, comprise six out of the ten countries that (out of the 124 countries that report to the World Bank's IDS) together account for 65% of the total developing country external debt. ECA, with 22 countries, has Turkey, Hungary, Kazakhstan and Ukraine. EAP, with 17 countries, has China and Indonesia. LAC, where the PNG is close to surpassing the PPG, has Brazil and Mexico. Furthermore, ECA has five out of the top ten countries¹¹ concentrating large sums of PNG in absolute terms. LAC has two, EAP two and SA has one. (Figure 6)

Figure 6: External PNG in US\$ billions



Source: World Bank's International Debt Statistics (IDS)

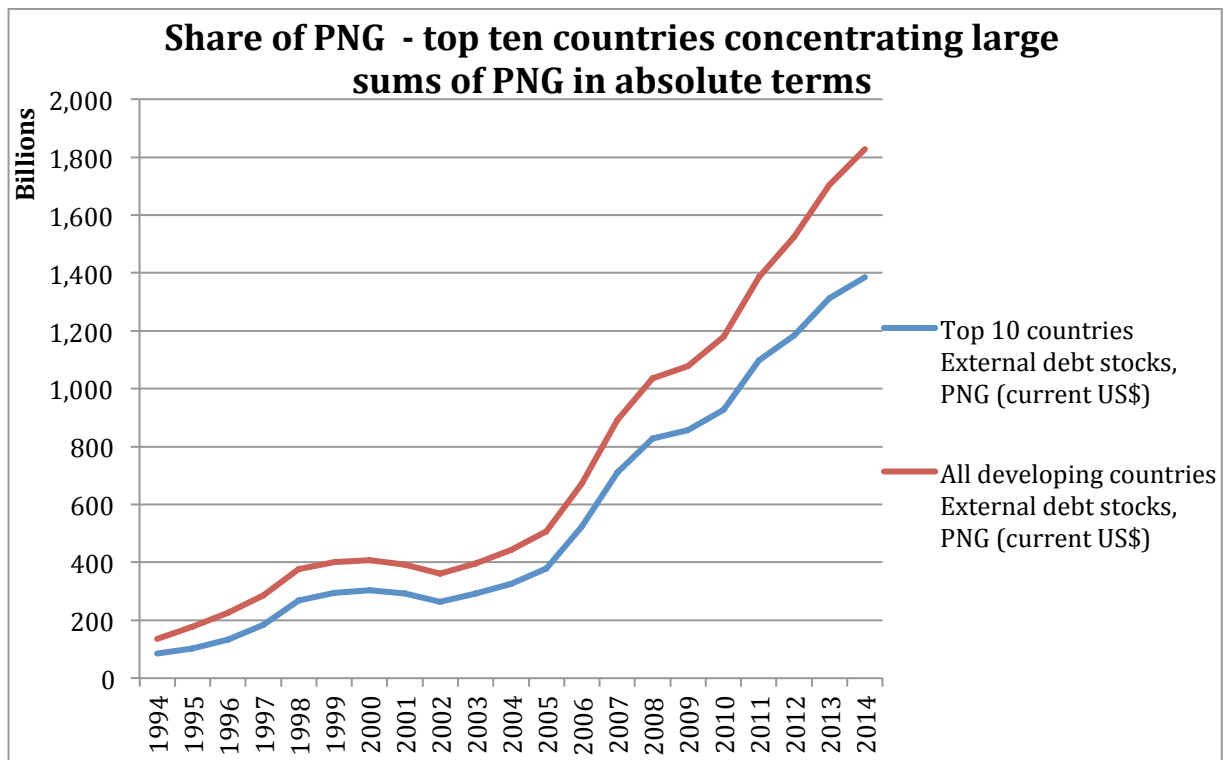
This shows that the overall tendency in all developing countries, and in the analysis by regions, may be masked by the large volume of debt flows of only a few countries, and is very likely to be driven by a handful of these developing countries. Figure 7 shows that the accumulation of PNG debt is concentrated in a few destinations when comparing, in absolute terms, the total external stock of PNG of all developing countries against the total external stock of PNG accumulated in the top ten countries. These ten countries are responsible for the bulk of cross-border external private debt.

Here, it must also be considered that the accumulation of PNG debts is a crucial determinant of a country or region's financial stability. A country or region that is more dependent on PNG debt indicates that, on one hand, they have access to international financial markets and are an investment destination for institutional investors whilst, on the other, based on lessons from the past (see Rodrik and Subramanian, 2009), it also indicates the potential instability of these flows

¹¹ Brazil, India, China, Turkey, Kazakhstan, Indonesia, Mexico, Ukraine, Romania and South Africa.

that have characterised the legacy of financial globalisation. The fluctuations in flows on PNG debts are significant and could potentially indicate problems in future financing needs, as these changes are frequently unpredictable. In this light, the global cross-border debt in developing countries is, in fact, a remarkable concentration of debt and risk in these top ten countries.

Figure 7: Total External Debt Stock of PNG *versus* Total External Stock of PNG in the Top Ten Countries



Source: World Bank's International Debt Statistics (IDS)

4. Foreign Trade trends in Developing Countries

Considering the traditional view on the relationship between current accounts and trade balances and the evolution of developing and emerging countries' external debts, it is commonly argued that external indebtedness depends, among other things, on current account imbalances. Essentially, from a national accounting point of view, current account deficits imply a need for foreign resources to finance them.¹² In this section, we show that not always current accounts trade and trade balances follow a close relationship. Furthermore, we show that developing economies in general have experienced recurrent surpluses, despite an overall current account balance deterioration since 2008.

¹² Statistics come from a wide range of sources. Data for current accounts and their components come from UNCTAD for the aggregate figures and income groups, and from the Economist Intelligence Unit (EIU) for the regional statistics. Data from the United Nations Comtrade Database (UN Comtrade) provide a more detailed look at the evolution of trade of developing countries, allowing disaggregation across the different components of trade as well as trading partners. The Standard International Trade Classification (SITC classification) is used to distinguish different types of goods.

The overall picture for emerging and developing countries shows the current account and the trade account following a very similar pattern, especially in the 2002-2009 period when they increased remarkably, peaking in 2007, and then contracted in 2008. However, after 2009 the two series seem to decouple, with the trade balance remaining stable in absolute terms and slightly declining as a percentage of GDP, whereas the current account deteriorated sharply both in absolute and relative terms, becoming negative in 2013 (Figures A5 and A6). The declining income balance matches our findings in the previous sections, with debt service amounts owed by developing countries increasing steeply during the same time period.

Overall, Figures A5 and A6 show the emerging and developing countries had a current account surplus in 2000-2013, but the vast balance of payments surpluses have deteriorated since 2007 due to the financial crisis. It is also clear that the position of emerging and developing economies seems to be heavily dependent on the global business cycle, which mostly influences their current accounts through changes in trade.

The trade breakdown into commodities shows that, on one hand, manufacturing is the most important part of emerging and developing countries' exports and imports, accounting for roughly twice the value of commodities trade over the whole period. On the other hand, while trade in manufacturing presents a roughly balanced account, the overall trade surplus has mostly been driven by a surplus in commodities trade (Figures A7 and A8). A puzzling finding since 2013 is the fact that, the commodity trade balance dropped sharply and the manufacturing surplus increased equally sharply, leaving the trade balance almost unchanged. The data show how this is the result of a decline in commodity exports and manufacturing imports, while manufacturing exports continued to increase.

Net factor income is negative for all regions (except temporarily in the MENA region in a few periods), with values around 3% for LA, ASEAN and SSA countries. This is noteworthy since it shows that dividends and interest payments paid to foreign investors and official lenders are a very important component of these countries' financial position, and are not balanced by emigrant workers' remittances. The global financial crisis, unlike the trade figures, does not seem to have had a clear effect on income flows (Figure A9). Current transfers are unsurprisingly positive for all regions, except the MENA countries. This latter finding most likely reflects the inclusion of richer oil-exporting countries in the group, such as the Emirates, Kuwait, and Qatar, which are not targets of aid and official assistance flows (Figure A10).

In sum, the evolution of emerging and developing countries' current accounts, which quite closely follow that of the trade in goods accounts, presented positive figures until 2008, with the exception of SA, whose services trade surplus did not compensate for the growing trade in goods deficits. Most countries experienced positive or balanced current accounts, which were primarily driven by the positive evolution of their (goods) trade accounts. This again confirms that emerging and developing economies seems to be very dependent on the global business cycle influencing their current account through changes in trade.

Despite all the regions having suffered as a result of the 2008 crisis, the deterioration of trade and current accounts since then has been slow but steady. Although since 2007-8, LA, SSA and SA have not presented surpluses in their current accounts, overall, the figures also show that most regions have also not been especially vulnerable externally in terms of their overall current account balances. That is, the analysis of current accounts suggests that the developing world, from the period starting roughly at the turn of the century until the global financial crisis,

experienced a decade of relatively low ‘traditional’ external vulnerability. Finally, the net factor income and current transfers essentially confirm a structural condition of emerging and developing countries: they are net interest and dividend payers to foreign countries, and net receivers of foreign transfers.

One final important point to highlight is that all regions except SA are net commodity exporters, with commodities constituting a growing majority of their exports. Although a more detailed study is necessary to examine the proportion of commodity exports to the total exports, there seems to be a correlation between the share of commodity exports and the trade balance (IDS, 2017). As a consequence, the deterioration of the trade balance caused by the deterioration of commodity trade since 2007-8, which resulted in current account deficits in five of the six regions, can be explained at least partly by the cycle in commodity prices. As shown in Figure A11, commodity prices which had been low or falling in the 2004-2008 period recovered in 2009-2012, but have been declining since then. The recent deterioration in current accounts is therefore at least partially imputable to a decline in commodity prices.

5. International financial integration, current account and external indebtedness

Financial integration of developing countries may not be immediately obvious through the examination of current account balances. There are other tendencies that should be examined, which can be grouped under a discussion of financial globalisation. The discussion in this section and the next one will essentially be putting forward the argument that the idea of financial globalisation is in fact at odds with the traditional literature on international borrowing.

The previous discussion shows that since 2006 not only has the total external debt stock increased in emerging and developing countries, but the importance of private sector external debt has grown. It has also been showed that outside of the OECD, current accounts are mostly driven by trade in goods, except in SA. Thus, the deterioration of commodity trade due to the 2007-8 financial crisis affected the trade balance, which in turn, had a negative effect on the current account. This deterioration is closely related to the commodity price cycle, which was low or falling in the 2004-2008 period, recovered in 2009-2012, and has been declining since then. This clearly raises possible new concerns about the balance of payments fragility of these countries, with commodity dependence being therefore a crucial concern for debt sustainability in emerging and developing countries.

However, despite the deterioration of the trade balances since 2007-8 and, therefore, current account deficits for the majority of the regions in the same period, the accumulation of external debt for all emerging developing countries has not directly followed the movements in the current accounts. The total external debt stocks in billions of US dollars increased for all regions since the beginning of the 2000s, with a sharp increase since 2007-8. More precisely, the accumulation of PNG has been increasing since the beginning of the 2000s, again with a sharp increase since 2007-8. In this light, as argued by Borio et al. (2011) for the case of the advanced economies, current account positions only partially explain the patterns of external indebtedness of emerging and developing countries too.

It is also important to emphasise that, surprisingly, although debt service has increased since the beginning of the 2000s, especially for PNG, debt indicators such as interest payments on external debt as a percentage of export of goods, services and primary income, and interest

payments on external debt as a percentage of GNI, have, on aggregate levels, improved since the beginning of the 2000s. Furthermore, when considering debt indicators to assess the liquidity and solvency of the borrowers under the HIPC and DSF frameworks, it is fair to conclude that, apart from ECA, debt in these regions appears to have been quite sustainable, especially after 2004.

Thus, the combination of the evidence presented in the previous sections suggests that the characteristics of external debt accumulation in developing countries may not be made immediately coherent by the examination of the balance of payment positions. Not only have most countries experienced positive or balanced current accounts while experiencing an increase in the accumulation of external debt, but as noted above, the debt indicator to assess liquidity and solvency of borrowers also suggest that in the period starting roughly at the turn of the century until the global financial crisis, these emerging and developing countries have experienced a decade of relatively low ‘traditional’ external vulnerability.

An approach to the increase of private financial flows from a different angle, however, indicates that the ability of the private sectors in developing countries to borrow abroad has increased substantially and the proportion of external liabilities taken up by securitised debts has also increased. In this sense, as documented by Akyüz (2012), in many emerging economies foreign investors have become primary holders of capital and debt securities as a result of the increasing portfolio flows targeting equities and local currency debt. This is also a result of the rise in corporations in emerging countries borrowing externally.

Clear evidence of such increase in participation by foreign financial investors can be seen in the Emerging Portfolio Fund Research (EPFR) database, which collects data from mutual funds and shows how foreign investors’ holdings of emerging markets equities and bonds have increased rapidly over the past decade (Figure 8). This confirms the findings shown in Figure 2 which indicates a growing composition of external debt made up of private sector and public sector bonds. Equity holdings started increasing around 2004 but since 2009 bonds holdings have been catching up very quickly, especially after 2008 (Figure 9).

Figure 8: EPFR Bond Allocation in USD millions

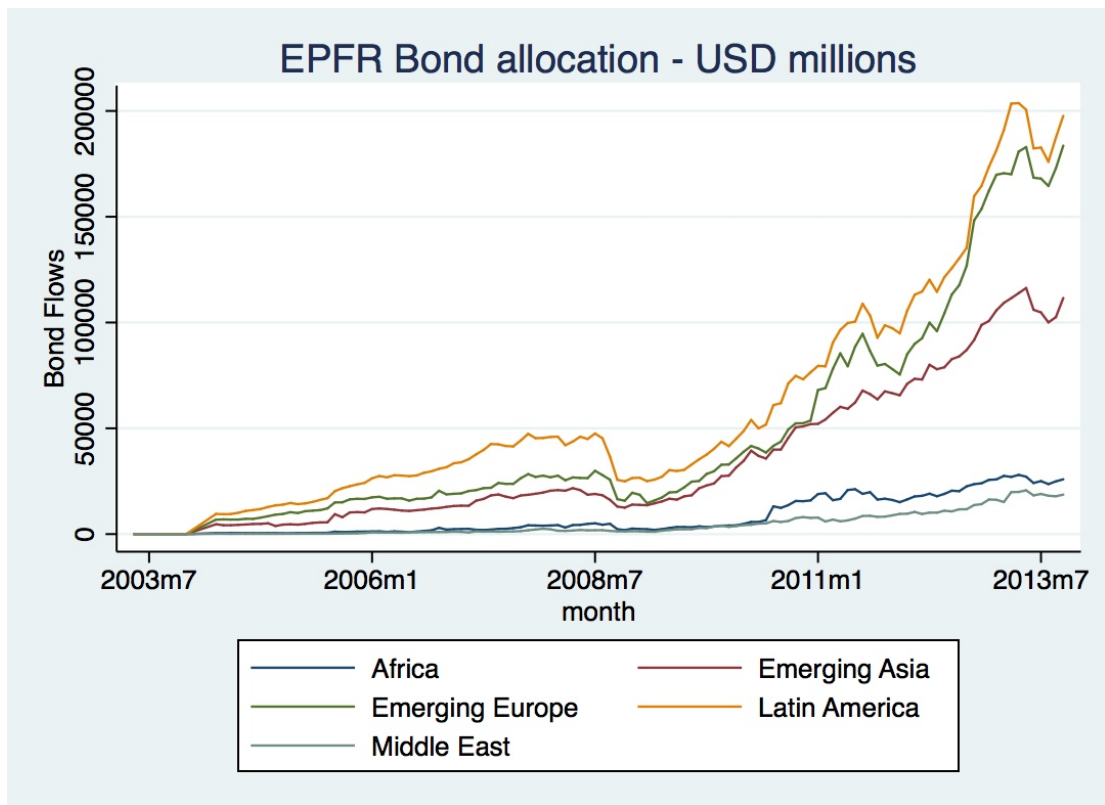
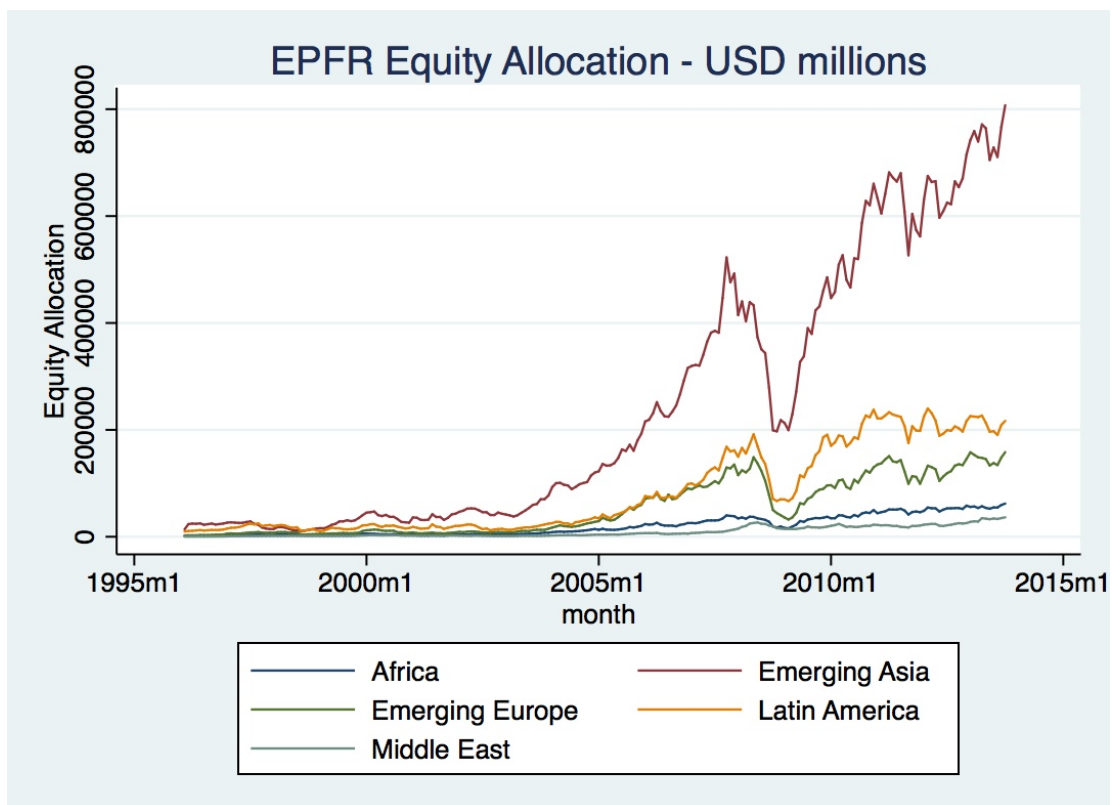


Figure 9: EPFR Equity Allocation in USD millions



These figures show an increasing involvement of the private sector in the developing countries' external debt, with the public sector, previously reliant almost entirely on official credit, becoming able to access private debt markets. This trend is the product of the integration of many developing countries into the global financial system which followed the writing down or refinancing of public external debt in those countries through support from the International Monetary Fund, and the Highly Indebted Poor Countries initiative.

More recently, international financial investors, subject to the low-interest rate environment in Japan, North America and Europe, have been attracted by the apparently substantially improved fundamentals of many developing countries, in a "search for yield" for their portfolio investments.¹³ Thus, overall, the recent changes in the composition of the developing countries' external debt indicate an increasing involvement of private sector institutions, both as borrowers and lenders. This leads us to consider the role that interest rates play in this scenario, as interest rates on private external debt are determined in global markets, and frequently there is a considerable gap between the international interest rate and the (domestic) developing countries rates.

5.1 Financial globalisation and the international monetary cycle

The capability of developing countries to incur in private and public sector external indebtedness as well as their potential for refinancing the debt along the yield curve do not rest only on their domestic macroeconomic policies. The growing participation of these emerging and developing countries in the global financial market increases the susceptibility of these countries to the international monetary cycle that determines the liquidity of international capital markets. This cycle is driven by the monetary policy of central banks in countries that are international financial centres or intermediaries, principally the USA, but also United Kingdom, Switzerland and the European Monetary Union and, to some extent also Tokyo and Singapore.

The monetary cycle determines the liquidity of capital markets in these financial centres in two ways. Changes in central bank interest rates alter the composition of financing in these centres because the relative cost of different types of financing is changed; also, open market operations, such as the recent quantitative easing, which is the exchange central banks' reserves for long-term securities, make markets for those securities more liquid.

There is considerable evidence of a major shift in perceptions of risk in international capital markets driven by expected changes in US monetary policy (Rey, 2013; Shin, 2012). Whenever US monetary policy becomes highly expansionary, with low interest rates and ample provision of liquidity, investors and lenders become more risk-seeking, reducing global risk-premia and spreads. Conversely, any prospect of monetary tightening tends to increase risk-premia, as investors become more risk-averse and invest in safer assets. With their emerging integration into

¹³ It is important to note as well that official development policy has itself become more supportive of the private sector. As documented in Bonizzi et al. (2015b), there has been a shift in the official development policy consensus towards the promotion of the private sector. Indeed, a substantial part of official flows from advanced countries goes to support private sector initiatives, including the financial sector, rather than humanitarian purposes. Furthermore, official flows themselves are increasingly being augmented with private funds through the process of 'blending', whereby private financial institutions complement the official aid budgets with guarantees being provided by the borrowers and/or the donors. This policy consensus helps explain the expansion of the private sector in some of these regions, for example, SSA.

global financial markets, the emerging and developing countries' bond yields may be affected by these processes.

Another frequently used indicator of investors' confidence is the Volatility-Index (VIX), which measures the implied volatility that investors expect from the S&P 500 Index (Figure A12). Higher levels imply high-expected volatility and therefore low investors' risk appetite. Spikes in the VIX can be seen in May 2010, August 2011 and August 2015, all notoriously turbulent periods for financial markets. Comparing this with Figures 8 and 9, bond flows and allocation, it can clearly be seen that during these periods inflows were much lower (May 2010) or negative (August, 2011).

The integration of the emerging and developing economies from the perspective of increasing cross-border assets and liabilities and, consequently, the increasing presence of private international investors should encourage their governments and multilateral agencies to look beyond the traditional forms of integration and instability and fluctuation crisis-mechanisms. The international monetary cycle is one aspect of it, which involves not only US monetary policy, including among other things strengthening of the US dollar, so-called quantitative easing and so on, but also the Bank of England and the European Central Bank monetary policies, for example.

Further, interest rates on private external debt are determined in global markets, which clearly applies to bond markets in general. This indicates that private debt is more directly exposed to fluctuations in global market changes, so attention has to be given to debts that float with market rates such as the LIBOR, for example. Capital controls also affect the direction of flows in the international capital market, both when they seek to exclude such flows, and when such flows are allowed.¹⁴

In sum, financial integration and the increased presence of private investors and private capital in emerging and developing countries make the latter's financing conditions more closely dependent on global financial market trends. This in turn reveals two interesting aspects. First, it confirms the limitations of the current account framework in explaining capital inflows and outflows to these countries. Second, while the access of these countries to more diverse sources of credit can be potentially positive for external debt sustainability, it also adds the vulnerability of global financial factors to the traditional balance of payment concern. Therefore, the integration of these markets into the global financial system needs careful scrutiny to ensure that it does not create more instability than benefits.

6. Further analysis of financial globalisation

In light of the previous discussion, it is relevant to question the traditional literature on international borrowing and to highlight a few aspects that underline the current financial integration of developing countries, such as the accumulation of foreign reserves. To this aim, Figure 10 below looks at current account balances, private financial flows (net), official flows (net), and changes in foreign reserves. Unsurprisingly, it can be seen that since the turn of the century there has been a substantial increase in net private inflows to emerging and developing economies – from around 100 to over 500 USD billions between 2002 and 2007. In line with the

¹⁴ An analysis of the capital flows among emerging and developing economies considering some of these aspects is beyond the scope of this paper.

findings of the previous sections, this was accompanied by surpluses in the current accounts, which resulted in the explosion of reserves accumulation, which increased more than ten-fold in the same period. While the global financial crisis has absorbed some of these increases, the levels of these positions remain much higher than in 2006.

Because of the domestic arrangements underpinning the financial integration in emerging economies and the debate over the unholy trinity and the constraint issue, (Eichengreen & Hausmann, 1999, 2005; Eichengreen, Hausmann, & Panizza, 2002), the need to accumulate foreign reserves has been adopted by these economies as a policy of self-insurance since the financial crises of the 1990s (Datz, 2008, p. 84; Lapavitsas, 2009, p. 14; Paineira, 2009, p. 12).¹⁵ Put simply, in the absence of structural change of global finance since the crises of the late 1990s, foreign reserves were used as a defence against sudden reversals of capital flows (Paineira, 2009, p. 12), particularly after short-term borrowing began to rise again (Lapavitsas, 2009, p. 14).

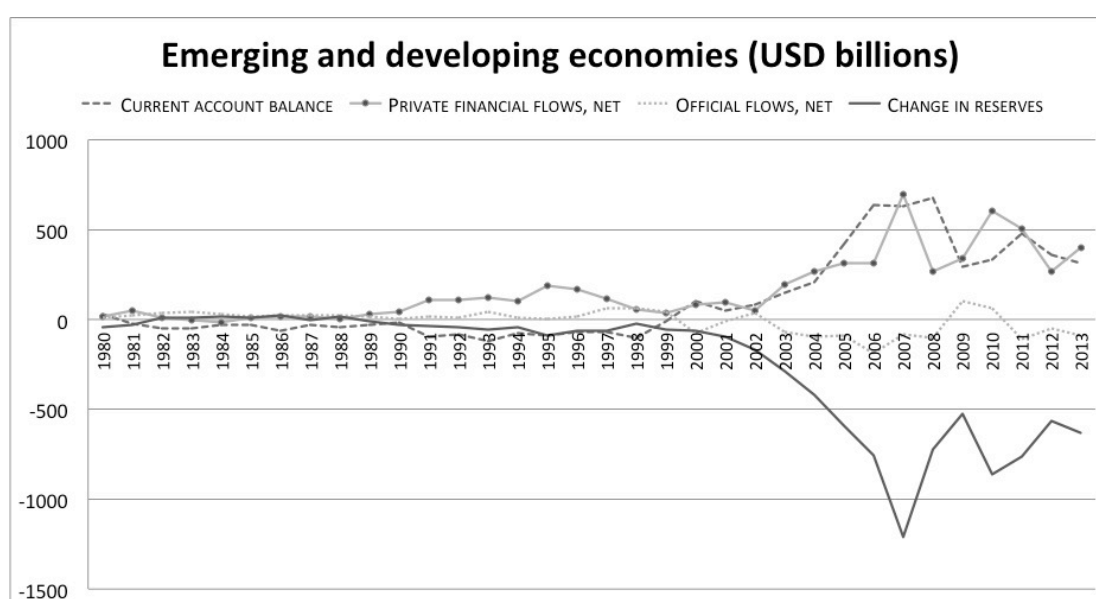
Interestingly, the mainstream economic literature makes a similar argument. It is argued that the financial crises in the late 1990s, marked by sudden reversals of capital flows, resulted in the emerging economies using global liquidity as an opportunity to increase their foreign exchange reserves in order to cope with exchange rate depreciation due to capital flights; this accumulation gave them more flexibility and control over their monetary policies (Reinhart & Reinhart, 2008, p. 22).¹⁶

Although the causes of foreign exchange reserves accumulation can be variously explained, it nevertheless signals, along with the high net private capital inflows, the growing presence of emerging and developing countries in the global financial system. Thus, emerging markets have been major recipients of private financial flows albeit most of these flows have been ‘recycled’ back by the central banks to advanced countries in the form of foreign exchange reserves.

¹⁵ Although the accumulation of foreign reserves has also been associated with regular current account surpluses in emerging economies, empirical evidence shows that the self-insurance policy has been applied by countries with no current account surpluses, but with significant short-term capital flows, notably in Africa (Alves, Boufounou, Dellis, Pitelis, & Toporowski, 2016). The IMF and the World Bank have also enforced this policy independently of any current account surpluses (IMF, 2008, p. 37).

¹⁶ The mainstream debate has also focused on ascertaining the optimal level of international reserves (Bussière & Mulder, 1999; Nowak, Hviding, & Ricci, 2004) and the measurement of the social cost of reserve accumulation (Rodrik, 2006).

Figure 10: Emerging and Developing Economies (USD billions)



Source: *World Economic Outlook* database (several years)

Figure A13 shows that the accumulation of foreign exchange reserves resulted, as expected, in an increasing share of reserves to total external assets. The A13 figure furthermore shows how the share of portfolio liabilities to total liabilities and that of debt (portfolio and other) liabilities have moved in almost symmetrically opposite directions over the whole 1990-2010 period. The increase in the portfolio liabilities share is especially remarkable since FDI also increased substantially in the same period. The financial crisis since 2008 has tended to reduce the pace of these trends, but it has not reversed them. This trend is closely linked to the rapid and sustained increase in PNG debts analysed before and seems to indicate an increasing importance of capital and bond markets in the dynamics of emerging and developing external liabilities.

It is important to note, however, that, in several periods, reserve accumulation actually exceeded the current account surplus. Taking as an example the Emerging Asia countries,¹⁷ Figure A14, borrowed from Borio & Disyatat (2011), illustrates the gross capital flows against current account balance and changes in reserves, and confirms that the common approach of linking current account surplus to the accumulation of official reserves should be taken carefully, especially considering that gross flows typically considerably exceed net flows.

This again confirms, as argued by Borio and Disyatat (2011), the inadequacy of the common assumption that gross flows are determined by net flows and, by extension, the treatment of the current account balance as the main determinant of gross flows. The question that then remains is to what extent the changes in foreign exchange reserves, by construction a sub-component of gross outflows, reflect official-sector holdings of foreign-currency liquid assets, and how those reserves are related to gross capital inflows into emerging and developing countries. Given the increase of the PNG in a few developing countries since 2006, this question may lead to a definition of foreign assets that is broader than the definition of foreign reserves.

¹⁷ Chinese Taipei, Hong Kong SAR, India, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand.

6.1 Gross and net capital flows and the centralisation of external private debt

The evidence for financial globalisation can also be seen in Figures A15 and A16 which show the data on cross-border holdings with external assets and liabilities growing continuously since 1970 (and particularly quickly in the 2000s), both in absolute terms and as a percentage of GDP. Another notable feature is the progressively narrowing gap between asset and liabilities over the same period, indicating improving net foreign asset positions, as documented by Lane and Milesi-Ferretti (2007).

The significant growth of assets and liabilities not only confirms the idea of financial globalisation, but indicates that current accounts, i.e. net flows, do not play a dominant role in determining gross capital flows, and the definition of foreign reserves as constructed in the national account may not cover all the bulk of gross inflows that originate in the private sector.

Although beyond the scope of this paper, an important line of inquiry in this context is to understand the driving forces behind these cross-border flows, and, by extension, the drivers behind the increase in the external debt of the private sector in these developing countries in the last few decades. The current account position not only fails to explain the cross-border capital flows, but it also overstates a trend (concentration of cross-border debt) that is typical of only a few countries. Participation in financial globalisation is specific to a few countries in these developing regions, and their respective gross capital inflow and outflow. In order to investigate these driver, analyses of this process should break away from an examination based on regions or income groups and focus on these countries (see Bonizzi, 2015).

It is also clear that an analysis of gross capital flows and current accounts, and of gross capital inflows by categories (for example, official, direct investment and government securities), as done by Borio and Disyatat (2011) for the US, is long overdue in these ten countries that together compromise 65% of the total of developing countries' private external debt. It seems extremely important when assessing global financing to move away from the issues of trade balances to an approach that looks at operations of individual firms across borders, which sometimes are largely unrelated or not captured by current account imbalances.

For example, during the period before the 2007-8 crisis, some of the largest exporters in Brazil, making use of extremely high domestic interest rates and considerable international liquidity, engaged in arbitrage operations using their external resources as the base for transactions in the derivative market. The crisis and as a consequence the devaluation of the Real caused large capital losses to these exporters, which in several cases threatened their solvency (see Barbosa & de Souza, 2010, p. 24). The government had no choice but to intervene offering/facilitating them credit, especially because these firms were major players determining the Brazilian balance of payments. Despite the clear solvency threat, the cross border flows between these exporters and non-residents have not been clearly documented, especially by the national account statistics.

7. Conclusion

External debt accumulation among developing countries increasingly occur in the private

sector, starting in the early 1990s and accelerating after the mid-2000s, while the share of liabilities held by government and multilateral institutions decreased. The significant increase in the developing countries' private external debts and, therefore, the surge in private capital flows, happened mainly within a context of current account surpluses. The surpluses in the current accounts partially explain the explosion of the foreign reserves accumulation that happened at the same time in developing and emerging economies. The explanation is only partial due to the fact that not only did this accumulation, in several periods, exceed the current account surpluses, but it also carried on, though at a slower pace, even when these regions started showing a deterioration in trade balances from 2007-8 onwards.

The deterioration of the trade balances followed by current account deficits for the majority of the regions since 2007-8 might have reinforced the tendency towards the increase in external private sector indebtedness that started in early 1990. Further, the deterioration was closely related to the commodity price cycle, which clearly raises possible new concerns about the balance of payments fragility of these countries, with commodity dependence being a crucial concern for debt sustainability in a traditional sense in emerging and developing countries.

However, the increasing involvement of the private sector in developing countries' external debt means the increasing integration of these countries into the global financial system, and this integration is no longer limited to trade in goods and services, and income transfers. Financial transactions vastly outpaced trade-related transactions, as the trend of financial globalisation involves a bulk of other asset transactions that originate in the private sector and are excluded from the traditional current account framework.

This becomes clearer when examining some of the features of the financial globalisation that began in the 1990s in developing and emerging countries when foreign investors have become primary holders of capital and debt securities as a result of both the increasing portfolio flows targeting equities and local currency debt and the rise in emerging countries' corporations borrowing externally. Foreign investors are now holders of both emerging markets' equities and bonds: these two securities have increased rapidly since 2006, which shows a progressively narrowing gap between asset and liabilities. These recent changes in the composition of the developing countries' external debt indicate an increasing involvement of private sector institutions as both borrowers and lenders.

Further, the growth of external assets and liabilities raises questions about the common approach linking the current account surplus to the accumulation of official reserves. Reserve accumulation broadly indicates, along with the high net private capital inflows, the growing presence of emerging and developing countries in the global financial system. Nevertheless, the traditional current account framework does not explain or justify the drivers behind cross-border capital flows, as the volume of gross capital flows dwarfs that of net (current account) flows. Moreover, the accumulation shows that emerging markets have not only been major recipients of private financial flows, but most of these flows have been returned to developed countries in the form of foreign exchange reserves.

The growing participation of emerging and developing countries in the global financial market also means that they are exposed to the international monetary cycle that determines the liquidity conditions in those markets. Thus, the private and public sector external indebtedness as well as its refinancing is directly affected by the monetary policy of central banks in developed countries, which in turn results in different types of external vulnerabilities than the traditional

balance of payment concerns.

It is also important to highlight that financial globalisation is a process specific to only a few countries in these developing regions, and their respective gross capital inflows and outflows. The current account position by regions not only fails to explain the cross-border capital flows, but it also overstates a trend (concentration of cross-border debt) that is typical of only a handful of countries. Scholars and policy-makers assessing the process of financial globalisation should focus on what is happening in these countries.

Overall, although global gross capital flows have largely resulted from flows among advanced economies despite a decline in their share of world trade, emerging and developing countries have also been part of this global integration, becoming more vulnerable to both shifts in commodity prices and dependent on the international monetary cycles and monetary policy in developed countries. Therefore, an engagement with developing countries that focuses solely on trade and the provision of finance for development ends up neglecting a system of cross-border financial assets and liabilities resulting from countless domestic players engaging in purely financial transactions at any given point in time for a myriad of different reasons, which affects the vulnerability of those countries in a so far understudied way, and through that the vulnerability of the international financial system at large.

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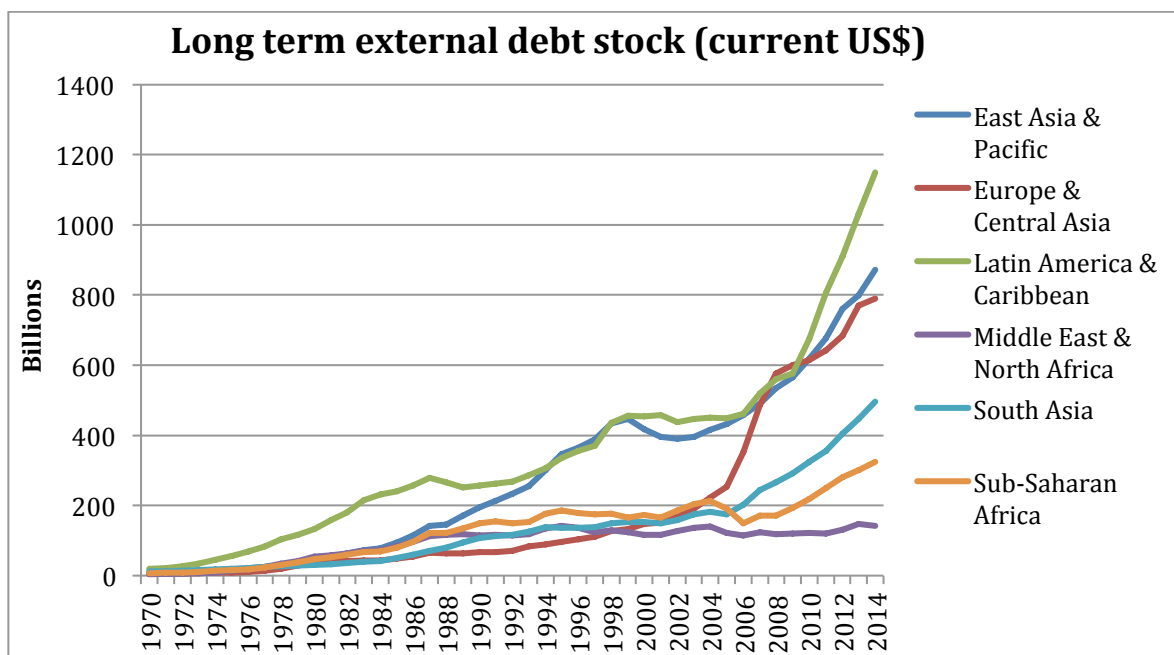
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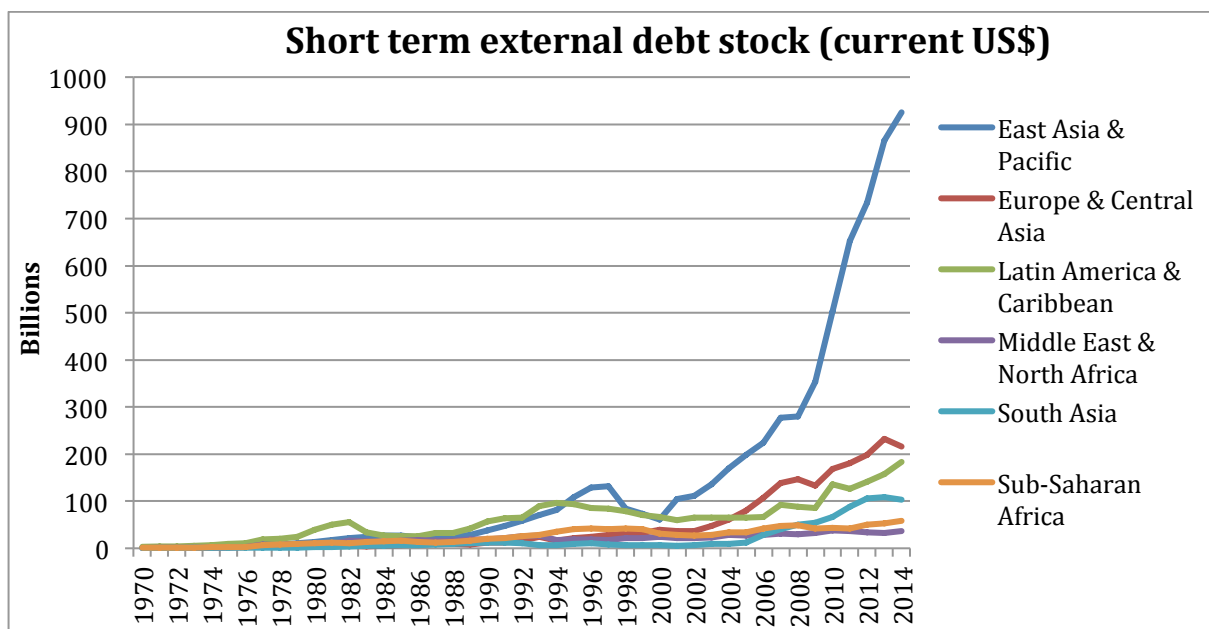
Appendix

Figure A1: Long-Term External Debt Stock



Source: World Bank's International Debt Statistics (IDS)

Figure A2: Short-Term External Debt



Source: World Bank's International Debt Statistics (IDS)

Figure A3: Total External Debt Service as Percentage of Exports of Goods, Services and Primary Income

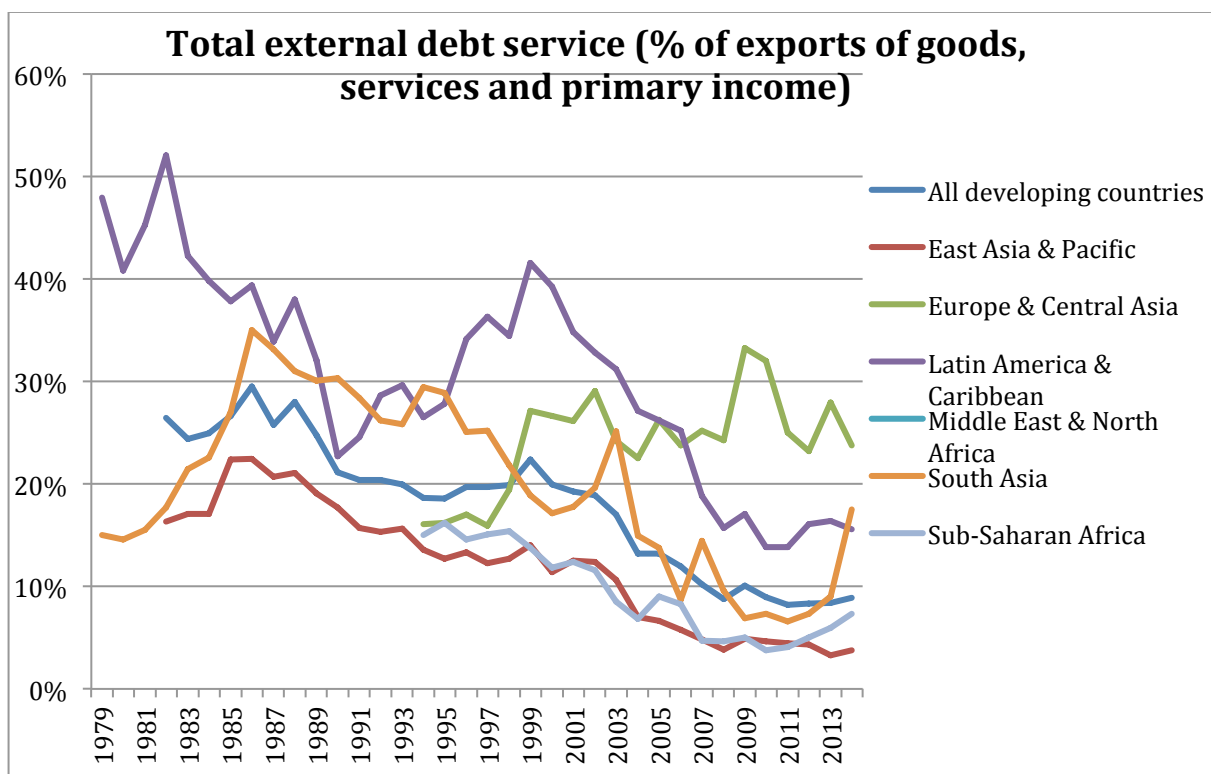
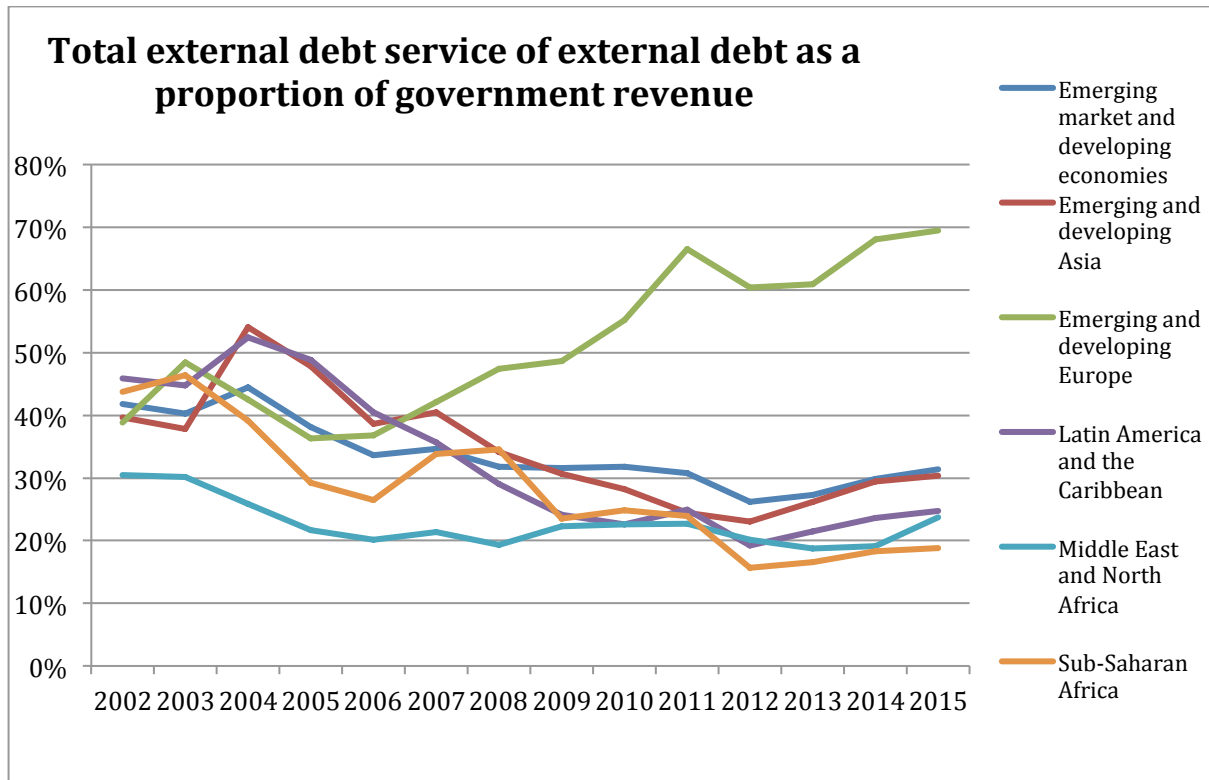


Figure A4: Total External Debt Service as Percentage of Government Revenue



Source: IMF WEO. Calculated as (total debt service % of the GDP)/(revenue % GDP)

Figure A5: Evolution of the Current Account and its Components in Nominal US Dollars Units

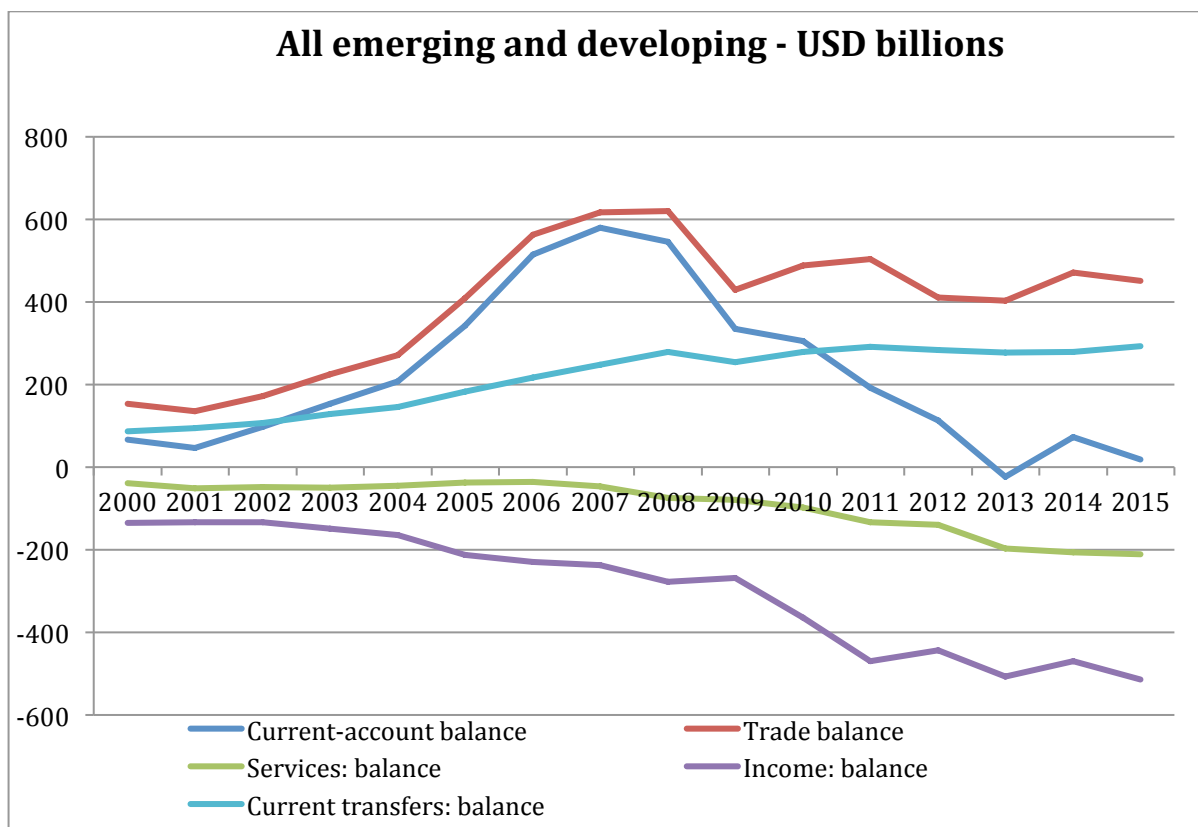


Figure A6: Evolution of the Current Account and its Components as a Percentage of GDP

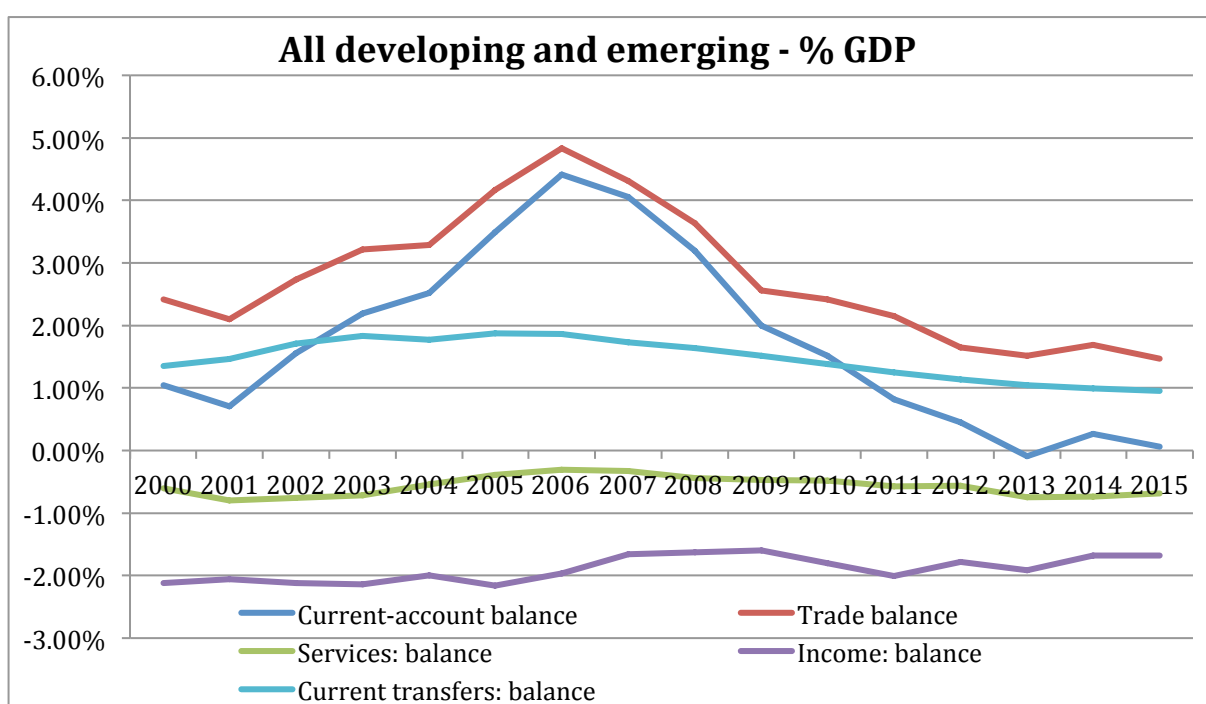


Figure A7: Trade Breakdown for all Emerging and Developing Countries

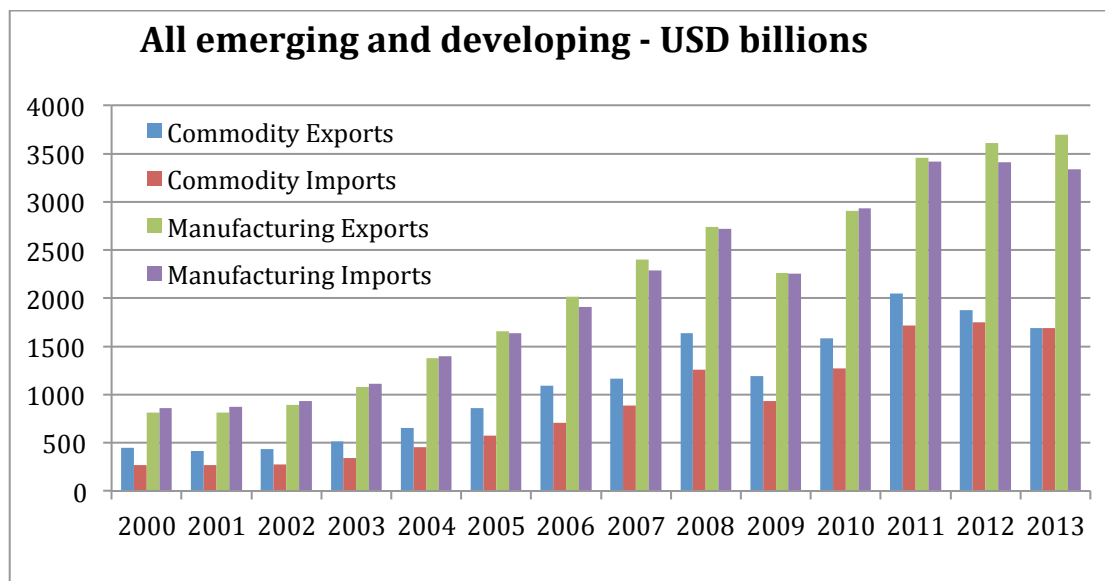


Figure A8: Trade Breakdown for all Emerging and Developing Countries

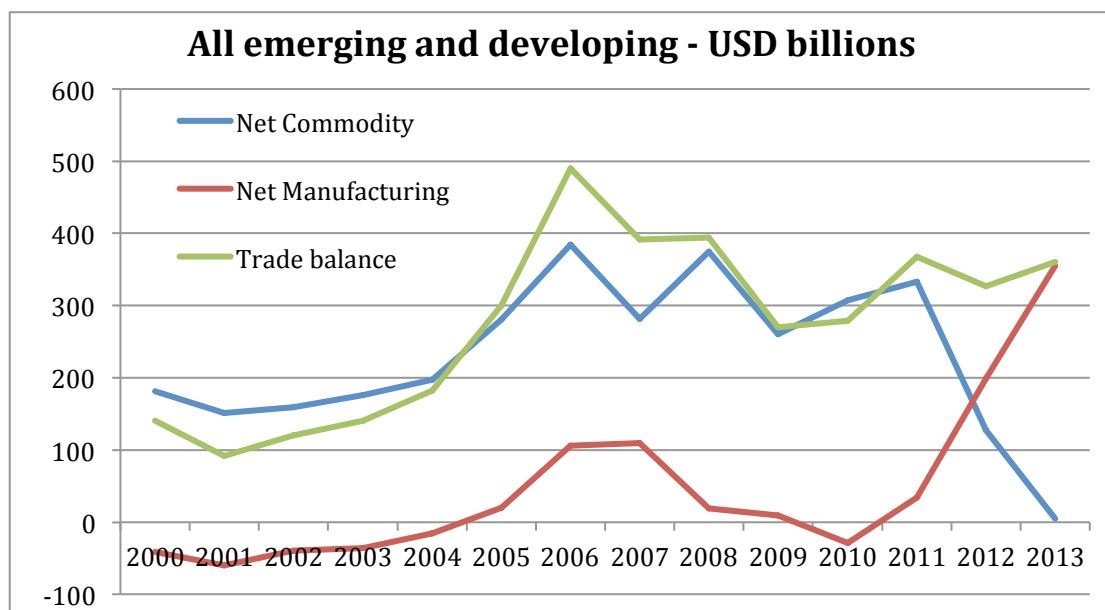


Figure A9: Net Factor Income by Region

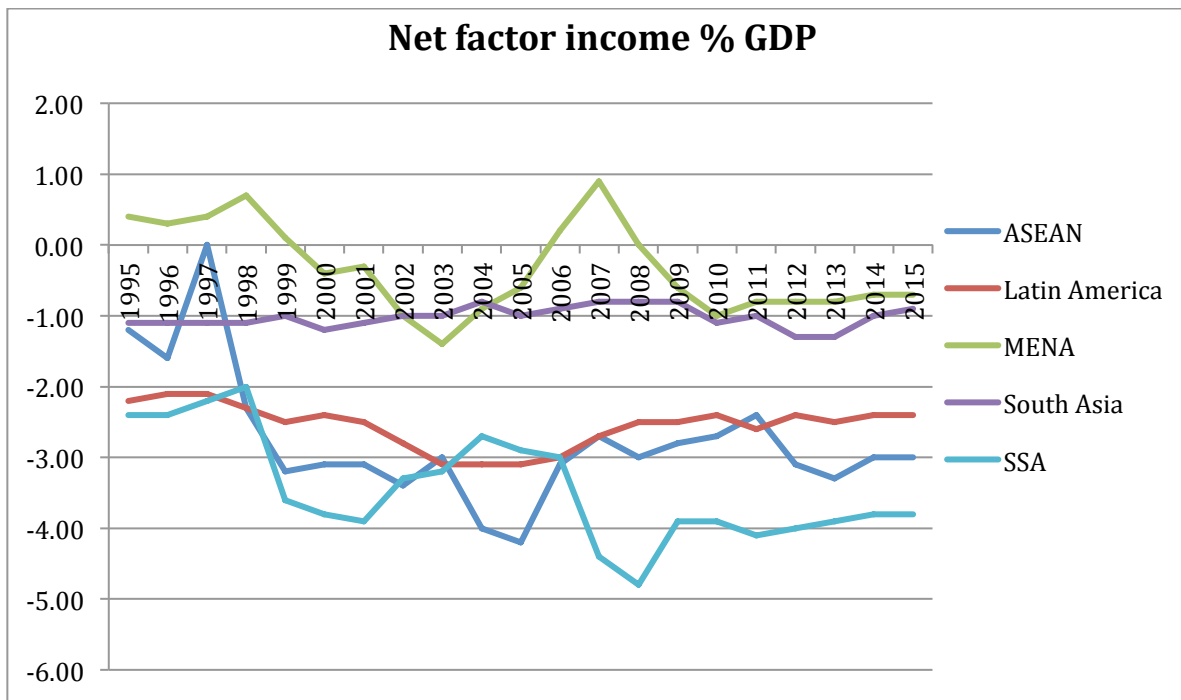


Figure A10: Current Transfer by Region

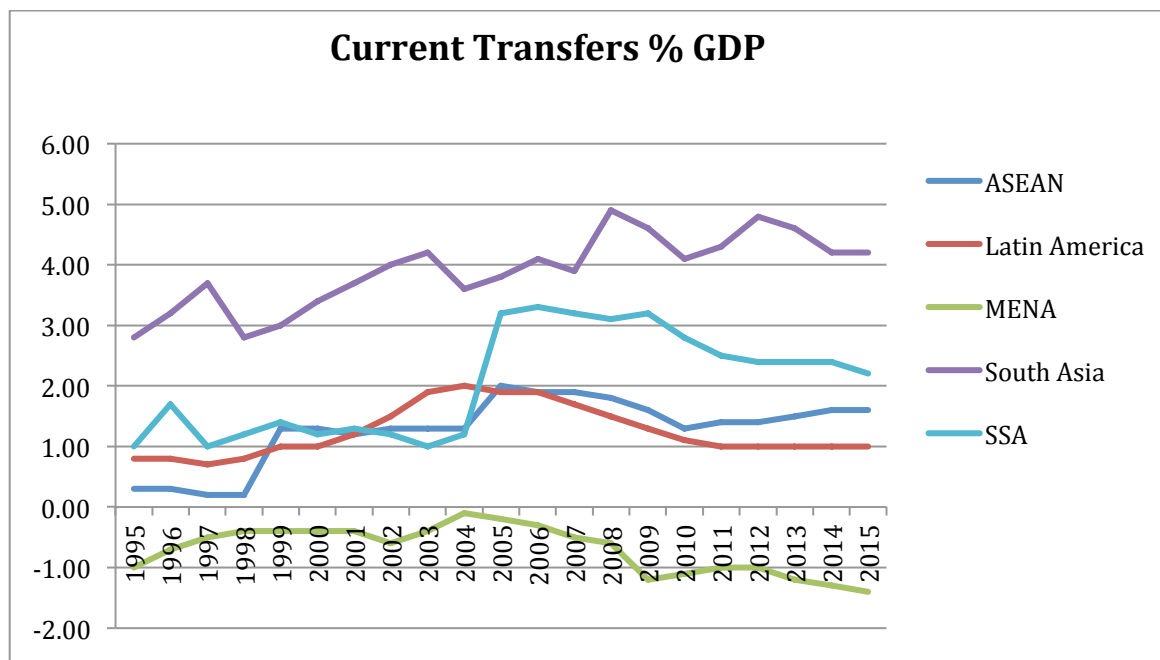
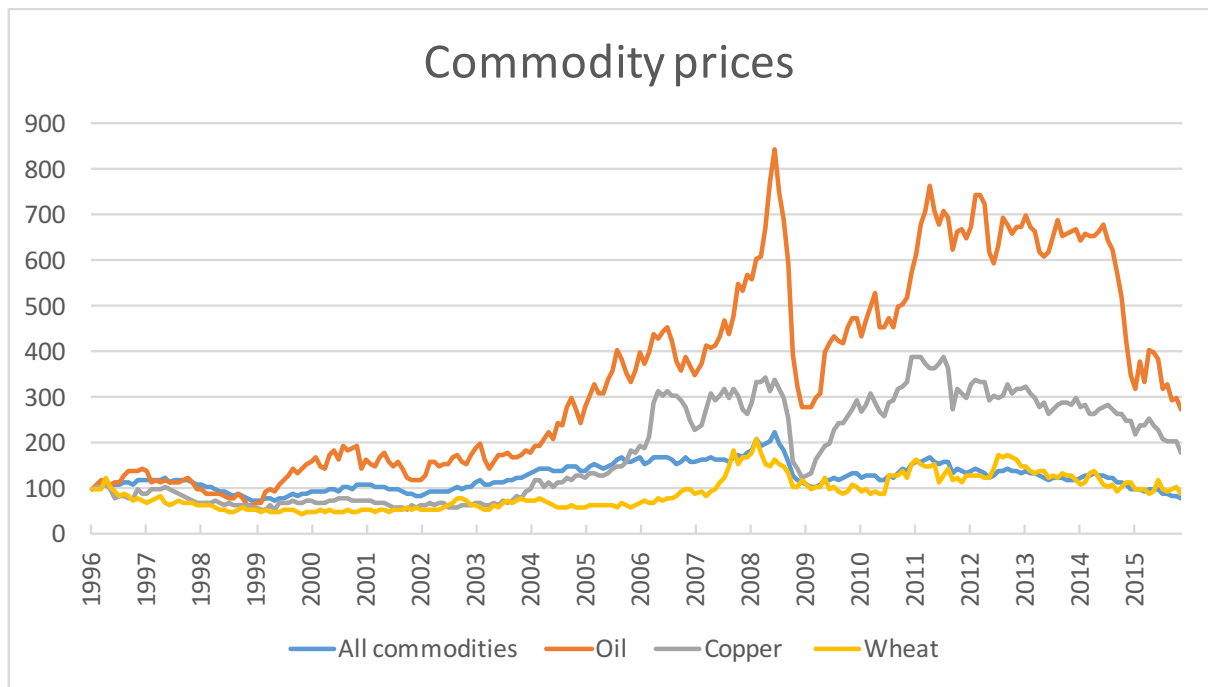
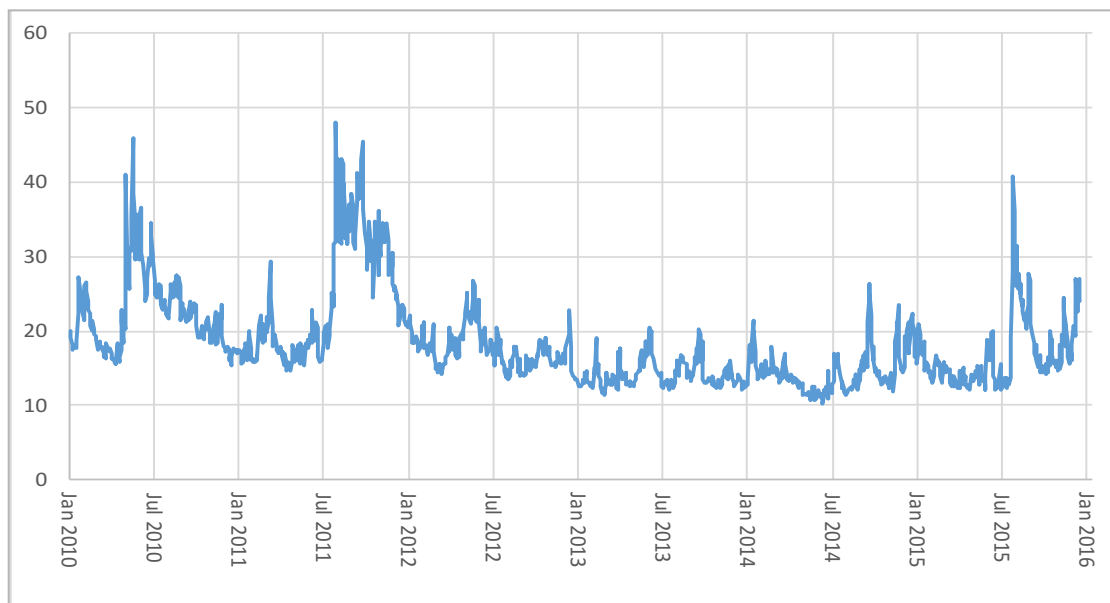


Figure A11: Commodity Prices



Source: Bloomberg (2015)

Figure A12: Implied Volatility – VIX



Source: Bloomberg (2016)

Figure A13: Emerging and Developing Economies' Portfolio Liabilities, Debt and Foreign Reserves Shares to Their Respective Totals (%)

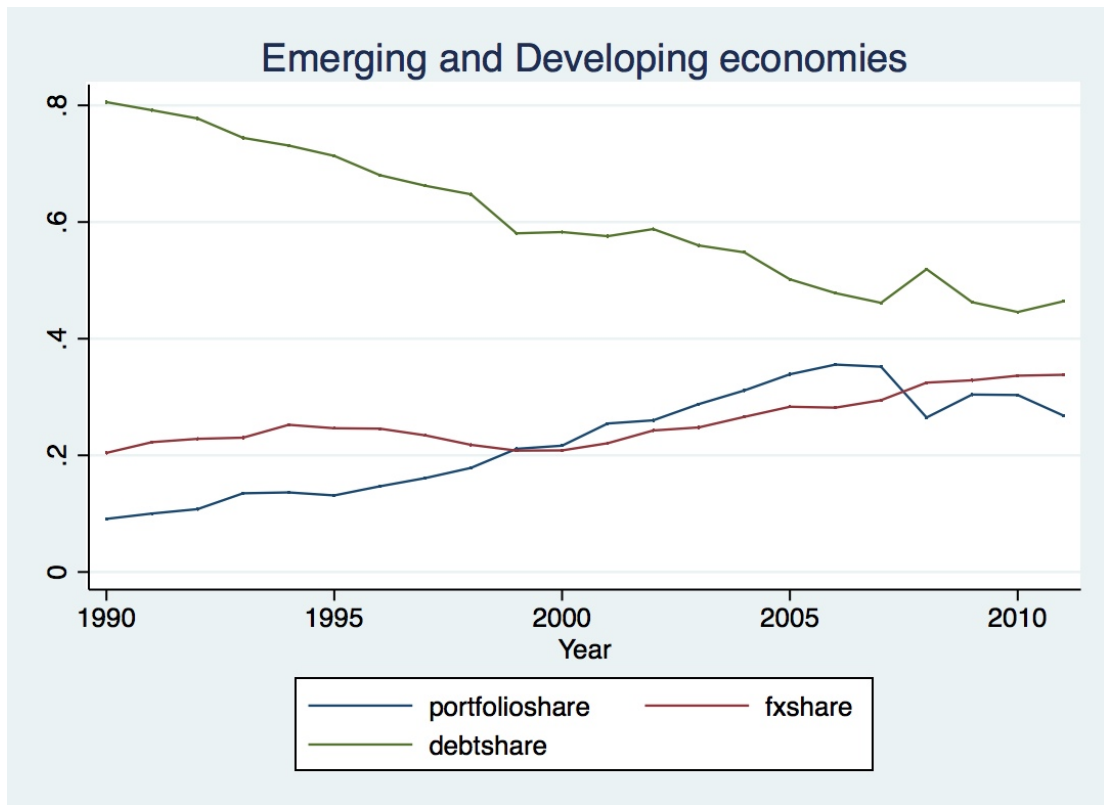
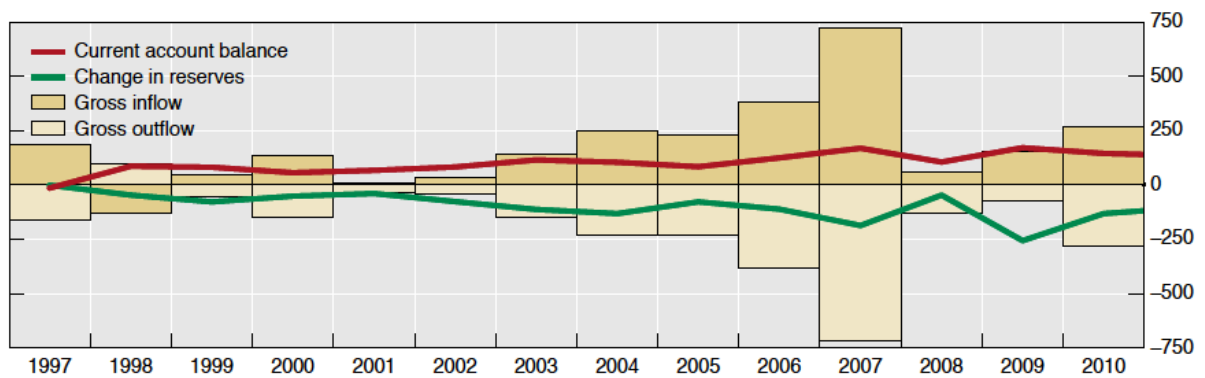
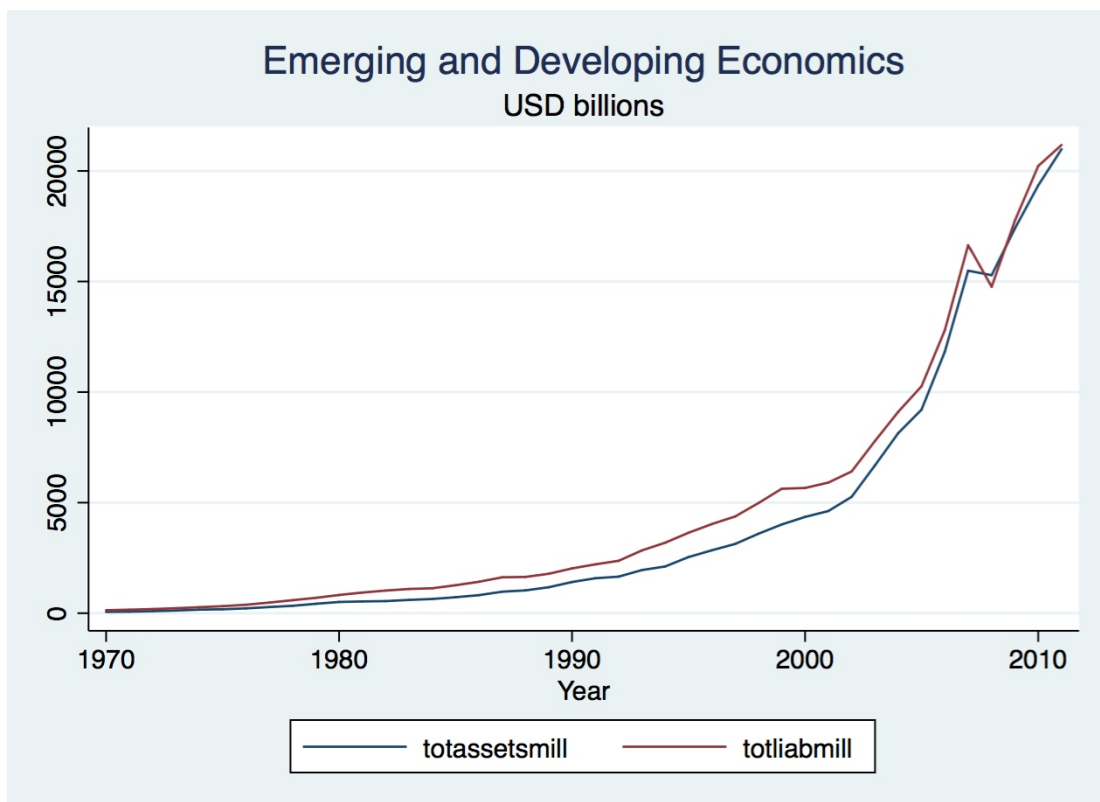


Figure A14: Emerging Asia Gross Capital Flows (in billions of US dollars)



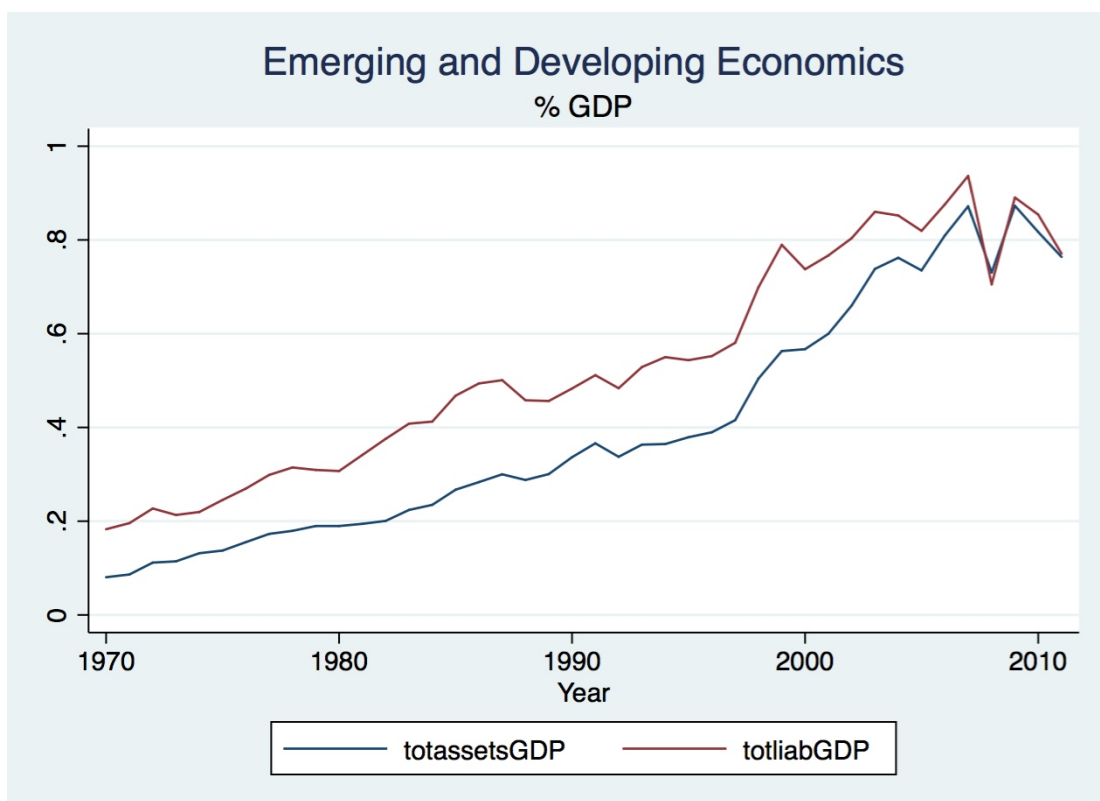
Source: Borio & Disyatat, 2011, p. 11

Figure A15: Emerging and Developing Economies' External Assets and Liabilities



Source: updated and extended version of dataset constructed by Lane and Milesi-Ferretti (2007)

Figure A16: Emerging and Developing Economies' External assets and Liabilities as Percentage of the GDP



Source: updated and extended version of dataset constructed by Lane and Milesi-Ferretti (2007)