Long-Term Financing: impact of the crisis in Local Currency Bond Markets

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1. Introduction

The period following the 2008 crisis has had two notable consequences in EMEs domestic bond markets. In the first place, it has successfully tested the extent of the transformation of EMEs local currency bond markets, specifically government, into deeper and long term financing sources that had been building up over the previous decade. EMEs government debt markets in local currency have been able to show resilience in the midst of capital volatility and international markets instability in general, as illustrated by the fact that they have been among the best performing asset class over the last three years[1].

In the second place, the post crisis scenario has had in itself a direct positive impact on local currency bond market development with capital flowing into EMEs in search for yield and higher growth prospects absent in AEs. Inflows into EMEs fixed income funds, a proxy of inflows into local currency bond markets (LCBMs), have reached peak levels well above those in 2007 (US$91 billion versus US$ 30 billion). This has challenged the initial belief that growing fiscal deficits in AEs after the 2008-09 crisis would prevent capital from flowing into EMEs. Government bonds in advanced EMEs, in second tier EMEs and corporate bonds generally have benefited from record long maturities and low yields with exposure to foreign investors reaching levels unseen before. Though the two latter assets are still in an incipient stage in local currency and are mostly performing in hard currency denominated debt.

An even more incipient asset class, infrastructure and sub-national financing through fixed income markets has stayed very much in the margins of access to capital. Progress in government bond markets are a necessary first step to create the enabling environment for those instruments, but at the same time more complex technical frameworks involving, among others, sectorial regulations, reliable tariff structures and policy commitments are required.

Post crisis developments in EMEs local currency bond markets have not taken place in a straight line and have differed depending on countries and the type of asset whether government or

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[1] Only the JP Morgan NEXGEM index, representing frontier markets debt in hard currency, and US high yield bonds have performed better.

corporate bonds. The final result is positive in terms of increasing availability of long-term capital and improved markets to absorb it in government bonds, with a large pending agenda in non-government fixed income instruments.

Twists and turns experienced by EMEs local currency bond markets in the five post-crisis years provide many insights into vulnerabilities pending to be addressed (e.g. exposure to risk-on risk-off sentiment) and new challenges and dilemmas in the context of increased interdependency and a still ailing global economic recovery (e.g. capital account regime, high exposure to foreign investors). It also reinforces the need to continue developing government bond markets and expand reforms to create enabling environments to develop other important asset classes in fixed income markets: corporate bonds, infrastructure and sub-national bonds.

The rest of the note will focus on a brief factual description of post-crisis developments in local currency bond markets in EMEs with the following structure: the second section will provide a snapshot of the main features of developments in local currency bond markets after the 2008 crisis; the third section will analyze the main factors behind EMEs performance and the fourth section will address the main policy challenges for long term financing through capital markets resulting from the post 2008 crisis developments. The diagnostic will focus on those EMEs that have relatively large and functional local currency domestic bond markets, as issues confronted by countries with less developed bond markets such as small countries or LICs are of a different nature and would require a different analysis and policy approach.

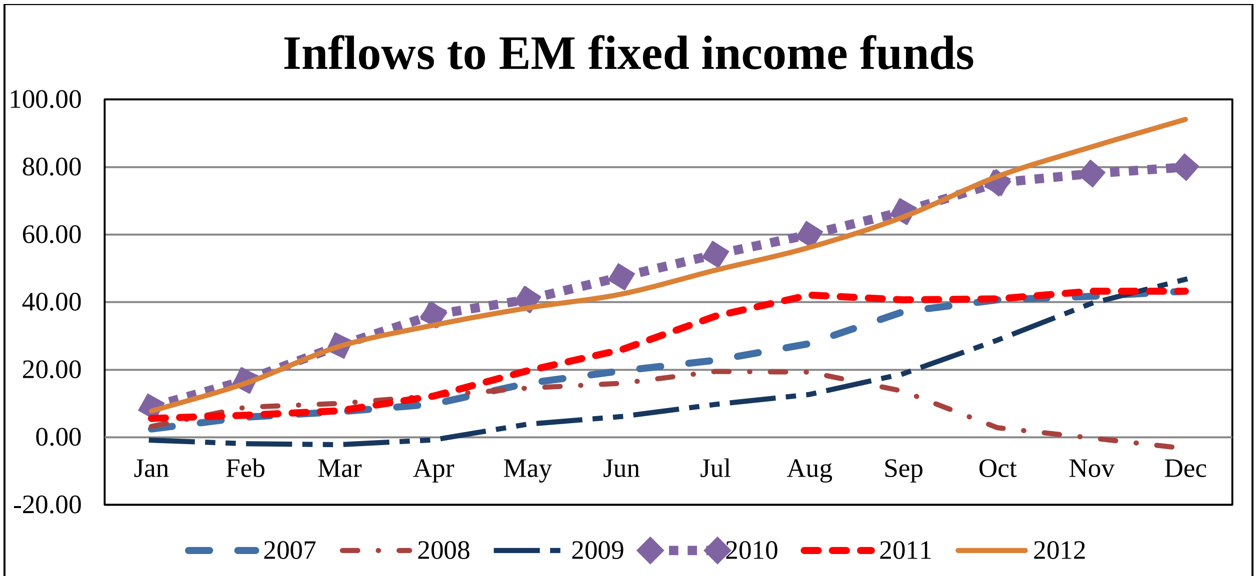
2. LCBMs: a snapshot of developments since the 2008 crisis

2.1. Capital has continued to flow into EMEs after a brief respite in 2008

Capital flows have been an essential driver of developments in EMEs LCBMs even more heavily than in the previous decade. The start of the crisis in 2008 was only a temporary hiatus in EMEs as main destination for international capitals. By the beginning of 2009, only five months after Lehman´s collapse, capital flows gradually returned to EMEs fixed income, as illustrated by flows into fixed income funds that reached an all time peak of US$ 91 billion in the end of 2012 (see chart 1)[2].

[2] Aggregate capital flows to EMEs have recovered as well but not so strongly, remaining in 2012 around 10 percent lower than the historic peak in 2007. This is caused by the fact that commercial banking flows have not recovered yet (see IIF, Capital Flows to Emerging Market Economies, January 2013).

Chart 1: Inflows to EM Fixed Income Funds (US$ billion)



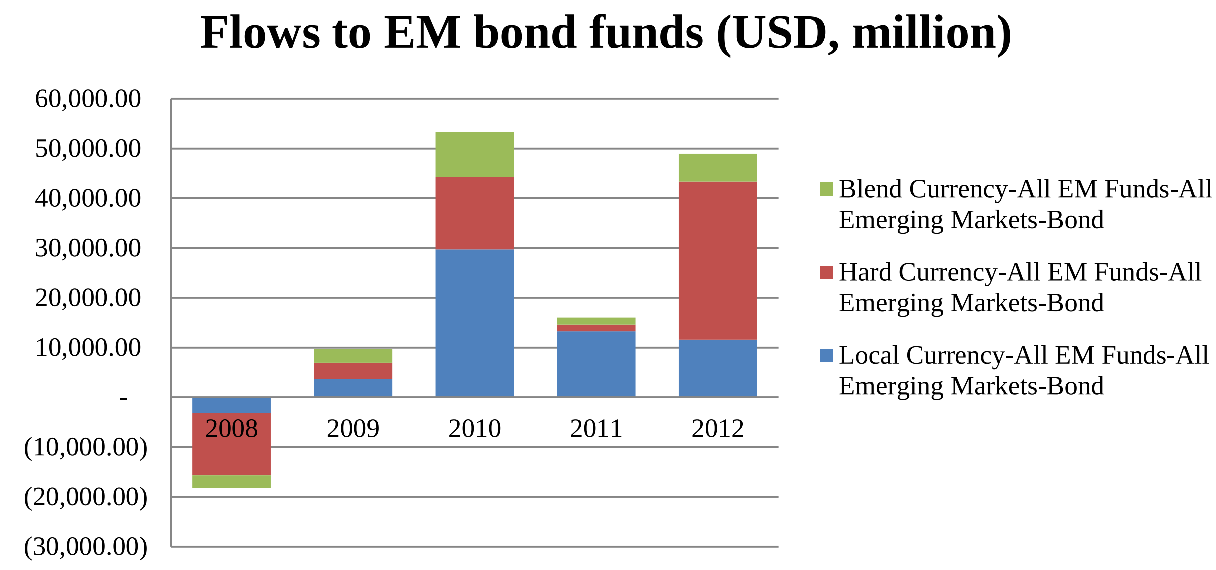
Source: EPFR and J.P.

In the months following the crisis, governments and central banks had to deal with extremely difficult conditions: depreciating currencies, worsening current account surplus or deficits, and more expensive access to finance in both local and hard currency. However, from the start of 2009, strong macroeconomic fundamentals, relatively developed local bond markets and worsening conditions in the Euro periphery helped to maintain inflows into EMEs. This was reinforced by narrower interest rate spreads between EMEs and AEs, with the latter reaching record lows in the context of QE programs.

The evolution of flows into EMEs fixed income funds over the last five years illustrates some of the vulnerabilities that EMEs LCBMs are still subject to (see chart 2). First, when risk perceptions increase, even in AEs, large shares of investments in EMEs are off-loaded from international investors portfolios. This was experienced in 2011 with the exacerbation of the tensions in the Eurozone, although inflows did not go below the pre-crisis peak in 2007. Second, EMEs debt in hard currency has gained a stronger weight along local currency debt[3]. This is related in part to the increased volatility of EMEs currencies, particularly in 2011 and 2012 with important currency depreciations in major EMEs such as Brazil, South Africa and Indonesia. In addition, capitals have been heavily flowing into hard currency debt of EME´s corporate bonds and Government debt in second tier EMEs. For both types of assets local currency bond markets are less developed. Funds are also flowing into their local currency government debt markets as well, but their lower degree of development is putting a limit to the amount of capital they can absorb.

[3] In 2012, 75 percent of flows went into EMEs fixed income funds denominated in hard currency.

Chart 2: EM fixed income fund inflows by hard and local currency



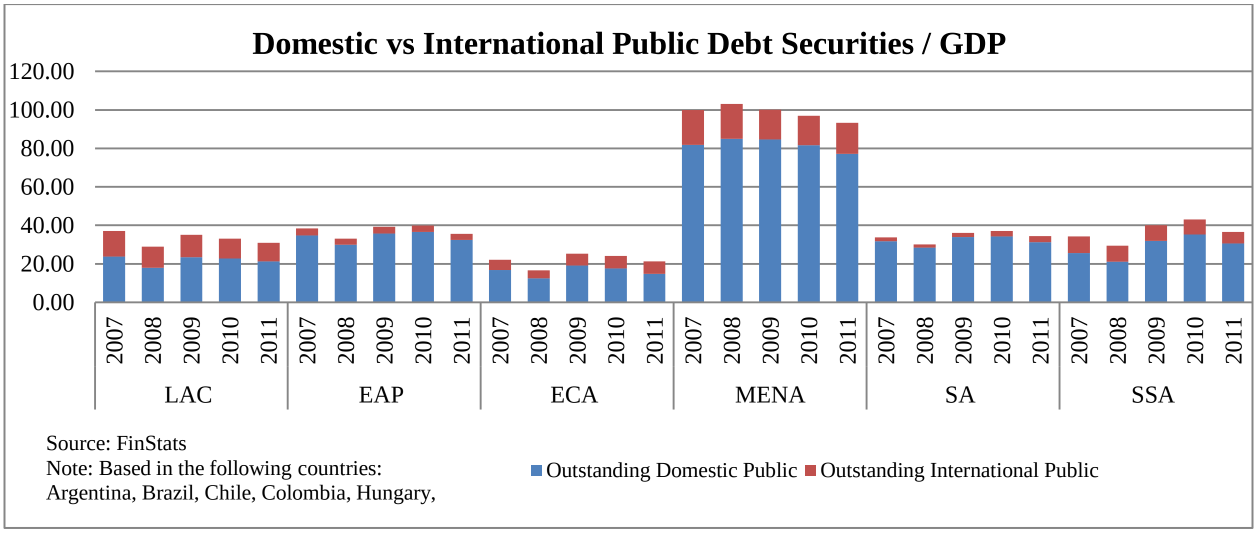
Source: EPFR

2.2. Domestic markets provide most of Governments' funding while private corporations access mostly international markets

Government debt is kept generally at sustainable levels under 40 percent of GDP, given growth and inflation prospects. In 2009 anti-cyclical fiscal packages temporarily had the impact of increasing governments' debt. A constant factor was that most governments funded fiscal stimulus through increased issuance in their domestic markets, reinforcing the value of local currency markets in periods of financial stress (see chart 3). The outlier is Mena, represented by Morocco and Egypt, especially with the latter that entered the crisis with high levels of debt. Even in the special circumstances of Egypt with domestic debt around 80 percent of debt over GDP, progress made before the revolution on their local Government debt market has enabled them to fund most of their debt in the domestic market.

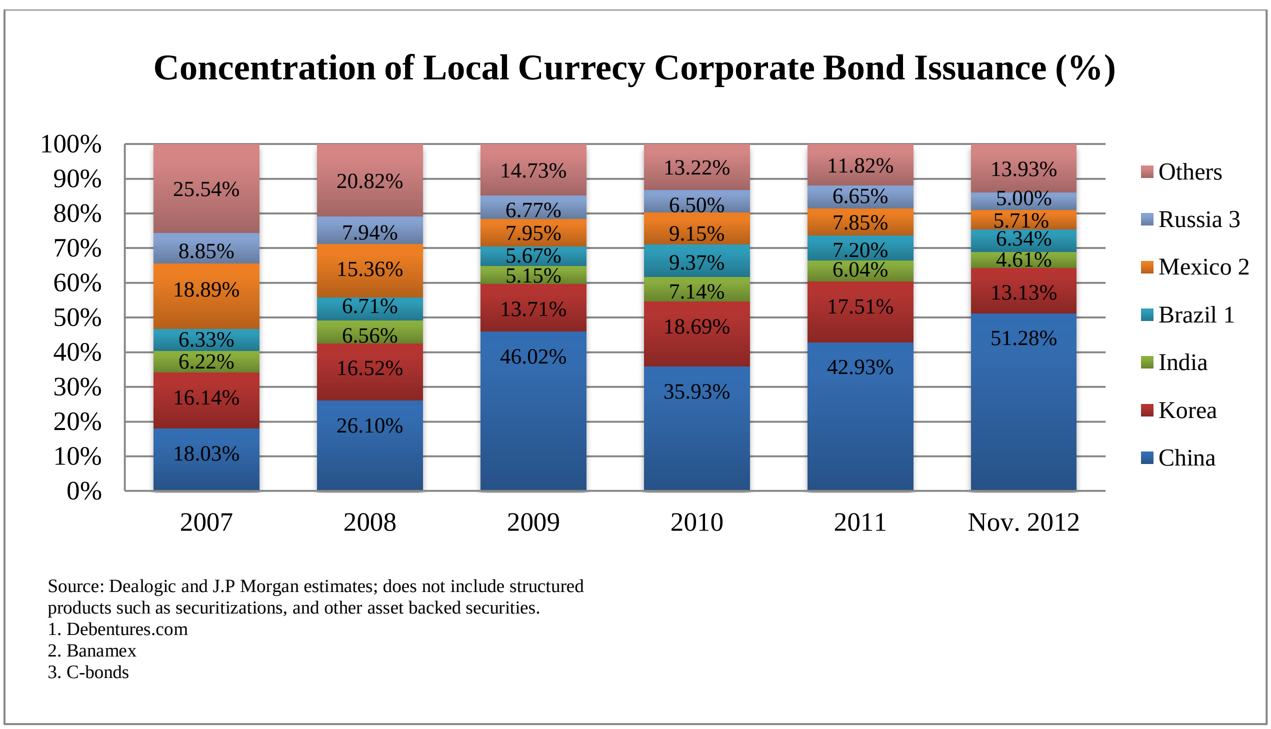
Since the crisis domestic debt in local currency has dominated across all regions and has generally increased its share of total debt, ranging from around 70 percent in Latin America to 91 percent in Asia. Funding through external markets has been done opportunistically to take advantage of low yields in hard currencies, and only as a secondary source of funding.

Chart 3: Domestic versus external Government debt as percentage of GDP by region



As far as EMEs corporate debt is concerned, local currency debt is growing but it is still small with issuance at around US$ 661 billion. China takes the largest share with 51 percent of total, after a fourfold growth between 2008-2012. This was mostly linked to SOEs rebalancing their funding structure from bank loans into local medium term notes rather than new financing. The rest of the debt is concentrated in a small group of six EMEs including Korea, India, Brazil, Mexico and Russia, with financial sector issues taking the largest share (see chart 4).

Chart 4: Concentration of local currency corporate bond issuance



With the exception of China, the five EMEs with some critical mass of local corporate bonds have grown moderately between 2008-2012. In contrast, EMEs corporations have increased the use of hard currency denominated debt by 82 percent between 2008-2012 reaching a historic peak of around US$ 1.2 trillion more evenly distributed across regions. Contrary to the case of local currency debt most international corporate debt is issued by non-financial multinational corporations based in EMEs.

The current structure of the corporate bond market favoring growth in hard currency debt as opposed to the trend observed in government bond markets points to two relevant conclusions.
First, the crisis does not seem to have had a negative impact on the capacity of EMEs' corporations to access long term funding as long as it is in hard currency (see Section 2.3 on maturities). Many of these corporations are multinationals whose preferred financing option are international markets. This is supported by the fact that a large share of their revenues is in hard currency and their funding needs are generally too large for the size of their home local currency bond markets.

Second, the crisis has not had a noticeable impact on improving or worsening corporations' access to local currency funding. The structural problems present before the crisis have persisted: high cost of issuance, poor disclosure requirements, defective creditor's rights frameworks, insufficient demand from institutional investors, etc.[4] Even in the larger EMEs with some critical mass of local currency bonds, corporate bond markets remain relatively small and concentrated in financial issues.

2.3. Average maturities have recovered to pre-crisis levels

The crisis had only a temporary impact on shortening maturities in issuances during 2009. The following year most EMEs started to issue at pre-crisis maturities and by the end of 2012 almost all regions were issuing at longer maturities. Large capital foreign inflows into local currency government bond markets supported maturity lengthening. Using the JP Morgan Chase's Government Bond Index of emerging market bonds (GBI-EM) as proxy, the simple average for all regions stands at 5.9 years compared to 5.4 years in 2007 before the crisis (see chart 5). Eastern Europe, which had been more negatively exposed to the crisis, lagged behind the rest of the regions in maturity lengthening.

While maturity lengthening across Government bond markets is a positive development, its sustainability is still an open question. Depending on the country, the ability to issue longer maturities has been linked to either strong economic fundamentals or to foreign investors carry-trade strategies and search for yield or a combination of both factors[5]. Carry trade strategies would make maturity lengthening less sustainable as these inflows will turnaround when the

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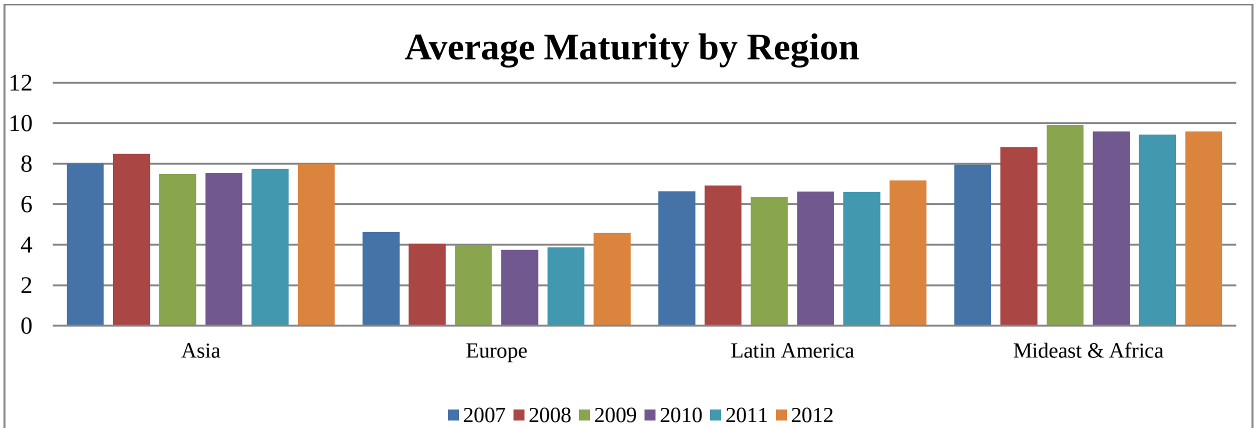
[4] IOSCO, "Development of Corporate Bond Markets in the Emerging Markets", November 2011.

[5] See for additional analysis: IIF, "Capital Flows to Emerging Market Economies", January 2013; Miyajima et al. "Emerging Markets local currency bonds: diversification and stability", BIS Working Paper 391, 2012; and Turner "Weathering financial crisis: domestic bond markets in EMEs", BIS Paper 63, 2012.

interest rate spreads between AEs and EMEs narrows. An additional vulnerability is that liquidity in the longer maturities tends to be lower with large differences across countries. Some countries, such as Mexico, have implemented a comprehensive debt market development agenda, including hedging options with long-term interest rate futures, with positive effects on secondary market liquidity, but in several countries these reforms are still a pending agenda[6].

Chart 5: Average maturity of outstanding local currency debt by region in years



Note: Local Currency Government, Outstanding. Based in the following countries: Argentina, Brazil, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Nigeri, Peru, Poland, Russia, South Africa, Thailand and Turkey.
Issues comprising GBI-EM index

Soruce: J.P. Morgan.

2.4. Lower yields and compressed spreads place LCBMs in EMES among the best performing assets

After bond yields spiked with the collapse of Lehman, they initiated a downward path in 2009 across all EMEs regions and assets. Lower interest rates in AEs were the main contributors to this trend but spreads have also consistently compressed to pre-crisis levels, though any event causing uncertainty such as tensions in the Eurozone in 2011 has had an immediate impact on higher interest rate spreads. If spreads over the 10-year US Treasury bond are used as proxy for local currency bonds, they show a compression of around 200 basis points in Eastern Europe and Latin America between 2008 and 2012, with more stable spreads in Asia.

In spite of spread compression over the last years, most EMEs continue to present attractive yields above 300 basis points of AEs. This has been a key driver for capital inflows and availability of long term financing. A comparison of performance across EMEs and AEs assets shows EMEs LCBMs to have outperformed all other assets, except for debt of frontier EMEs in hard currency and US high-income yield bonds (see chart 6).

A notable development since 2011 is the availability of low-cost long-term funding for EMEs with less developed LCBMs in international markets. Most of these countries had little or no

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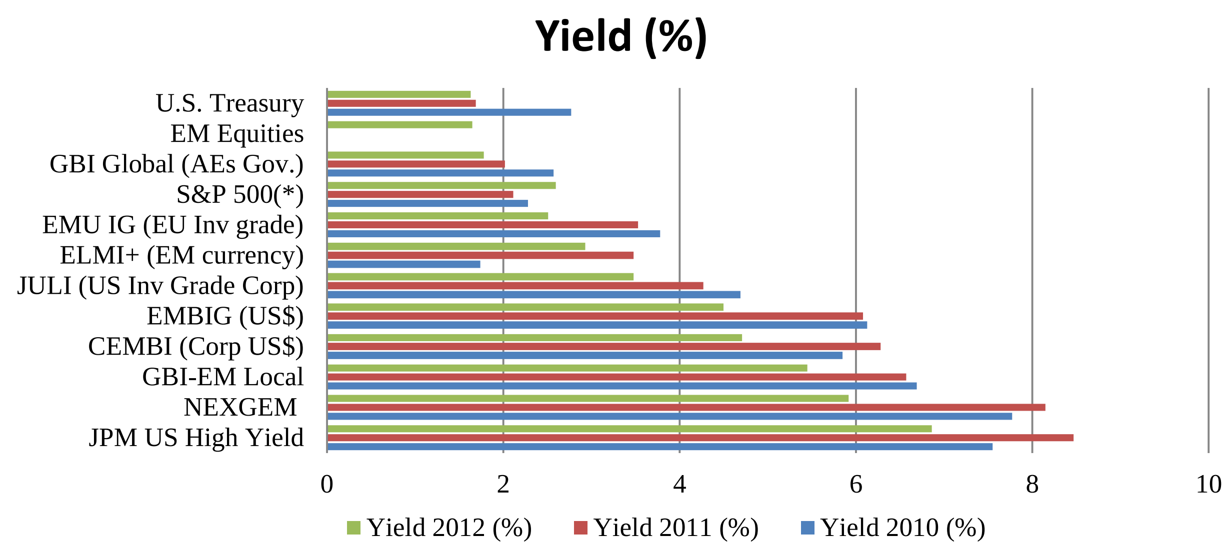
[6] Sidaoui et al.: "Banco de Mexico and recent developments in domestic public debt markets", BIS Papers 67, 2012.

history of global bond issuance and are being able to issues at interest rates of around 5.5 percent in maturities above 5-years[7].

Ongoing appetite for EMEs debt under low interest rates would be a reinforcing factor to consolidate reforms in local currency bond markets in advanced EMEs, and to build comprehensive programs in the less advanced EMEs that are accessing foreign capital mainly through international markets.

Chart 6: EMEs LCBMs yield versus other assets



Source: Morgan Markets, J.P. Morgan, (*)S&P Dow Jones Indices

2.5. The investor base continues its structural shift to the long term

After a halt at the end of 2008, the investor base has continued to undergo structural changes, initiated previously, that are supportive of increasing the availability of long-term capital. Two types of investor classes are contributing to increasing demand for long-term bonds in EMEs, each one of them presenting simultaneously opportunities as well as potential vulnerabilities: foreign investors of various types and domestic institutional investors, mainly pension funds and insurance companies. A third type that continues to be dominant in EMEs is the domestic banking sector.

Foreign investors traditionally associated with appetite for long-term debt have in several cases doubled or tripled their holdings of government debt in local currency since the peak reached in

[7] Second tier markets included in JP Morgan NEXGEM index include the following non-investment grade countries: El Salvador, Sri Lanka, Iraq, Dominican Republic, Egypt, Vietnam, Belarus, Jamaica, Cote D'Ivoire, Gabon, Pakistan, Ghana, Jordan, Ecuador, Nigeria, Georgia, Senegal, Belize.

2007 (see chart 7). The nature of foreign investors has also shifted from shorter-term to longer-term strategic investors.

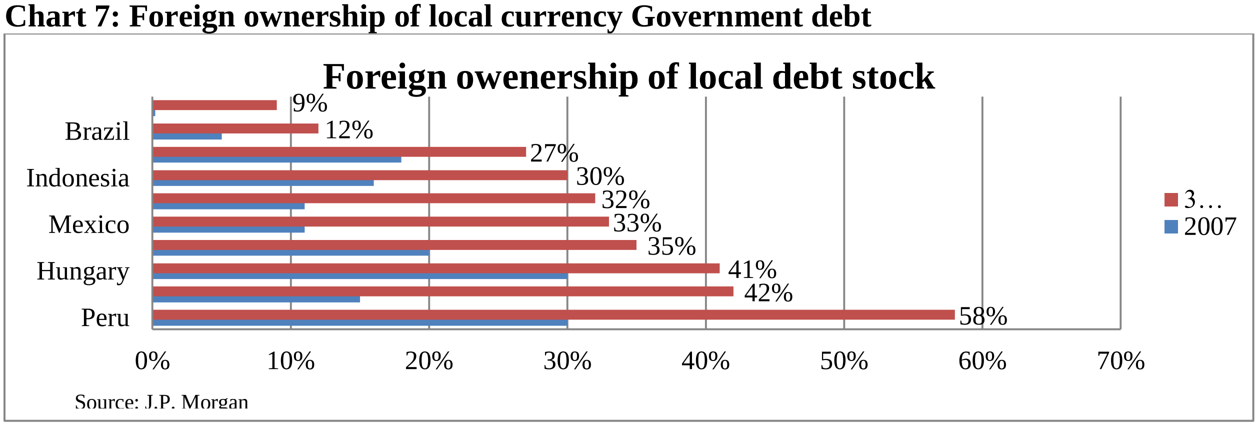
EMEs indices are also behind the increasing share of foreign investors from two angles, in addition to the factors pointed in previous sections. On the one hand, bond indices, both EMEs and non-EME specific, are in a continuous process of increasing their coverage of EMEs. Long-term strategic investors, such as pension funds, insurance companies and sovereign wealth funds, follow these indices. On the other hand, assets under management (AUM) benchmarked to EMEs indices are also increasing at high rates with 33 percent growth in 2012[8].

Domestic pension fund and insurance companies are increasingly becoming a major demand for long-term investments. Pension funds assets represented around US$ 1.7 trillion in 2011 with a 28 percent growth over 2008 and insurance companies reached US$ 2.7 trillion. Their growth is expected to accelerate across all regions as a result of both organic growth and reforms towards funded pension schemes and life insurance. However, their portfolios are mostly concentrated in government debt either because of regulatory restrictions or because market conditions do not exist to invest on other long term instruments such as corporate, infrastructure or sub-national debt (see sections above).

In spite of developments towards a more diversified investor base, domestic banks continue to be a major source of demand in LCBMs. This has raised several issues: the potential to develop long term financing instruments given limits for balance sheet duration mismatch; and impact on liquidity and market competition as many EMEs have relatively concentrated banking sectors.

Investor trends in EMEs raise several issues to be monitored. A greater share of foreign investors increases the risk of a turnaround in periods of financial stress, particularly when a stable domestic investor base has not developed yet and when domestic markets are not sufficiently liquid. The increased size of pension funds and insurance companies could add stability. However, they also risk becoming captive investors with the consequence of distorting price formation of the assets they invest in.

Chart 7: Foreign ownership of local currency Government debt



8 According to JP Morgan AUM benchmarked to EM indices increased 30 percent in 2012 reaching US$ 560 billion. This is split between 33 percent growth in local debt indices (AUM US$ 195 billion) and 26.percent growth in external debt indices (AUM US$ 293 billion).

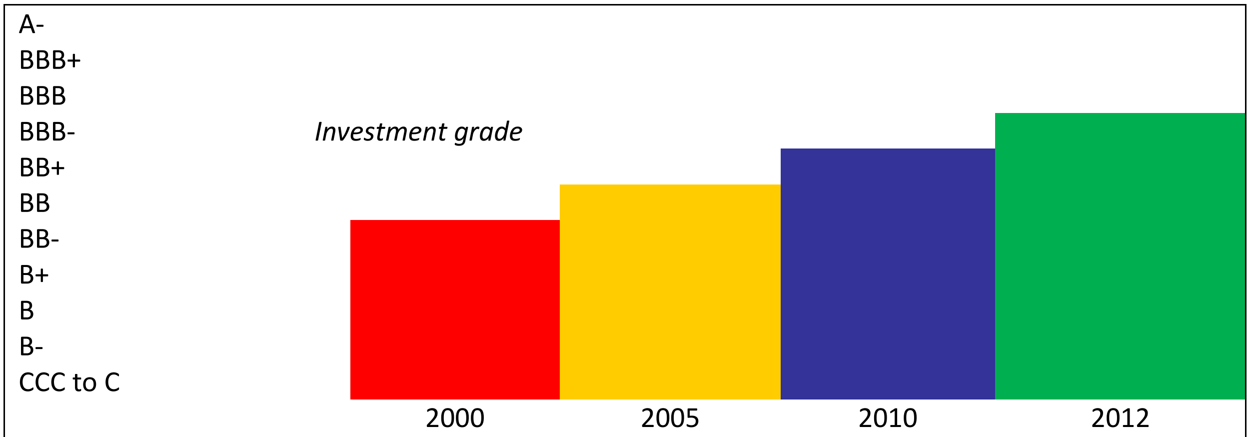
3. What are the common themes impacting long term financing since the start of the crisis?

Following the description of developments in EMEs LCBMs, a series of factors can be listed that have had a positive or negative impact on the availability of long term financing since the start of the crisis.

Macroeconomic fundamentals

Improved macroeconomic fundamentals, so called pull factors, have had a major impact on the attractiveness of EMEs. This has been reflected in the continuous improvement of their credit ratings. Since the start of the crisis, the average credit rating of EMEs sovereign not only did not deteriorate, but was upgraded in average by one notch above investment grade, depending on the sample chosen (see chart 8).

Chart 8: Evolution of credit ratings for a sample of the largest 20 EMEs[9]



Source: Staff elaboration with data form Morgan Markets, J.P. Morgan

Yields and spreads

On average monetary policy rates between AEs and EMEs have been around 500 basis points with spreads on the 10-year yields between 300-600 basis points above US Treasuries ("push factors"). The spread differential has attracted both leveraged short-term capital with carry trade strategies as well as longer-term investors in search for yield. While spreads are maintained, capital will continue flowing into EMEs, including long-term financing.

[9] The sample chosen includes the largest EMEs: Brazil, Chile, China, Colombia, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Morocco, Nigeria, Peru, Philippines, Poland, Russia, South Africa, Thailand, Turkey.

Risk-on risk-off paradigm

In spite of increased credibility of EMEs, their LCBMs are still far from being considered safe havens. Any event increasing uncertainty, even if generated in AEs, such as tensions in the Eurozone or the US fiscal cliff discussion, have immediately triggered a sell-off in EMEs, while reduced risk perceptions have caused inflows. Volatility of capital inflows and outflows caused by the high degree of correlation of EMEs as riskier assets, independently of fundamentals, is an obstacle for the development of stable long term financing.

Currency volatility

Performance of LCBMs has been very much exposed to currency fluctuations. With increased capital flows before and after the start of the crisis, currency volatility has depended in great part on central banks' willingness and ability to intervene in the foreign exchange market. There are several examples of central banks intervening to prevent currency appreciation but not currency depreciation (e.g. Brazil's depreciation in 2011 and 2012). This has weighed negatively on the performance and attractiveness of those domestic government bond markets. One of the main reasons behind increased flows into EMEs debt denominated in hard currency observed in 2012 (75 percent of total flows into fixed income funds), instead of local currency debt, is related to increased volatility of the EMEs currency.

Changing structure of the investor base

The increased share of class of strategic foreign investors has increased availability of long-term funding at relatively low cost but has not necessarily increased its stability, as they will still be acting on the risk-on risk-off paradigm mentioned above. While the development of domestic pension funds is positive, most EMEs still require a broader and competitive investor base that would provide stability when capital inflows reverse.

LCBMs development policies

Most EMEs have conducted policies to develop further their LCBMs. The resilience of these markets is in part related to those policies that included reforms to extend the yield curve in government securities and increase liquidity. They also included contingent measures in the period of higher stress to compensate for the lower liquidity caused by outflows, such as securities buy backs and swap programs. Mexico provides several examples of successful long-term reforms and short-term actions. Yet, there is a large pending policy agenda to consolidate reforms in the government bond market and to extend it to the non-government fixed income segment, so that the availability of long term financing becomes sustainable.

4. Conclusions and policy implications for LCBMs of developments since 2008

EME as a destination for capital into domestic bond markets, specifically long-term, has been reinforced since the start of the crisis. It has created both opportunities for sustained financing for growth, but on the other hand, it has also created new policy challenges and dilemmas. An analysis of developments in LCBMs since the crisis raises the following policy issues:

i) The importance of maintaining macroeconomic fundamentals to support a continuous flow of long- term financing and increase the margin of maneuver in periods of stress.
ii) Interest rate spreads as a driver for the availability of long-term international capital is not without risks, particularly when the cause is artificially low interest rates in AEs. Two unintended consequences may develop: misperception of asset risk and therefore inefficient allocation of capital and mispricing, or volatility of capital with changes in market sentiment (risk-on risk off) or when the interest rate gap between AEs and EMEs narrows.
iii) A too strong dependency on foreign investors can become a double-edge sword, particularly when the market is not sufficiently mature to support sudden outflows.
iv) A policy agenda aimed at consolidating government bond markets and expanding into non-government fixed income assets is a necessary condition to take advantage of the increased availability of long-term capital into EMEs.