

IMF Working Paper

Brazil's Capital Market: Current Status and Issues for Further Development

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Western Hemisphere Department

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September 2012

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Abstract

Capital market development in Brazil is a key policy issue going forward to foster savings, investment and absorptive capacity in a context of prospects for sizable capital flows in the medium term. During the last decade, Brazil has achieved substantial progress in capital market development. The menu of available financial instruments has been expanded, market infrastructure has been reformed and strengthened, and a diversified investor base has been built. Nonetheless, Brazil's capital markets are still facing a number of challenges including prevalent short-term indexation, investors' risk aversion to long-term fixed rate bonds, still low liquidity in the secondary market, and managing the role of BNDES. A shift to a lower yield curve environment should continue to gradually take place. But further progress will require continued policy effort to assure macro stability and financial sector reforms to promote the development of longer-term private finance.

JEL Classification Numbers: E44, G15, G28, G32

Keywords: Brazil, capital market, indexation, long-term financing, BNDES

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*The author wishes to thank Vikram Haksar, David Vegara as well as the Brazilian authorities, for their insightful comments.

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I. INTRODUCTION

Financial development is important for fostering economic growth and stability. This is a feature of the development process that has been extensively documented in the literatures (see Levine).¹ One of key components in this process is capital market development. For example, deepening the long-term local bond market facilitates the reduction of currency and maturity mismatches on corporations' balance sheets. This also creates alternatives to bank financing that can support efficiency and stability. From investors' point of view, deep and liquid capital markets increase the supply of differentiated assets facilitating investment choices. Perhaps most importantly for emerging markets (EMs), the macroeconomic and financial dislocations experienced following the crises in the late 1990s have led to increased efforts in these countries to develop local capital markets.

Capital market development in Brazil is a key policy issue going forward to foster savings, investment and absorptive capacity in a context of prospects for sizable capital flows in the medium term. Brazil's savings and investment levels as a share of GDP are still low by international standards. As such, deepening capital markets would be important for increasing incentives for savings and allocating these efficiently to investments. Deep and liquid capital markets could also help bolster resilience to capital flows by developing greater absorptive capacity.

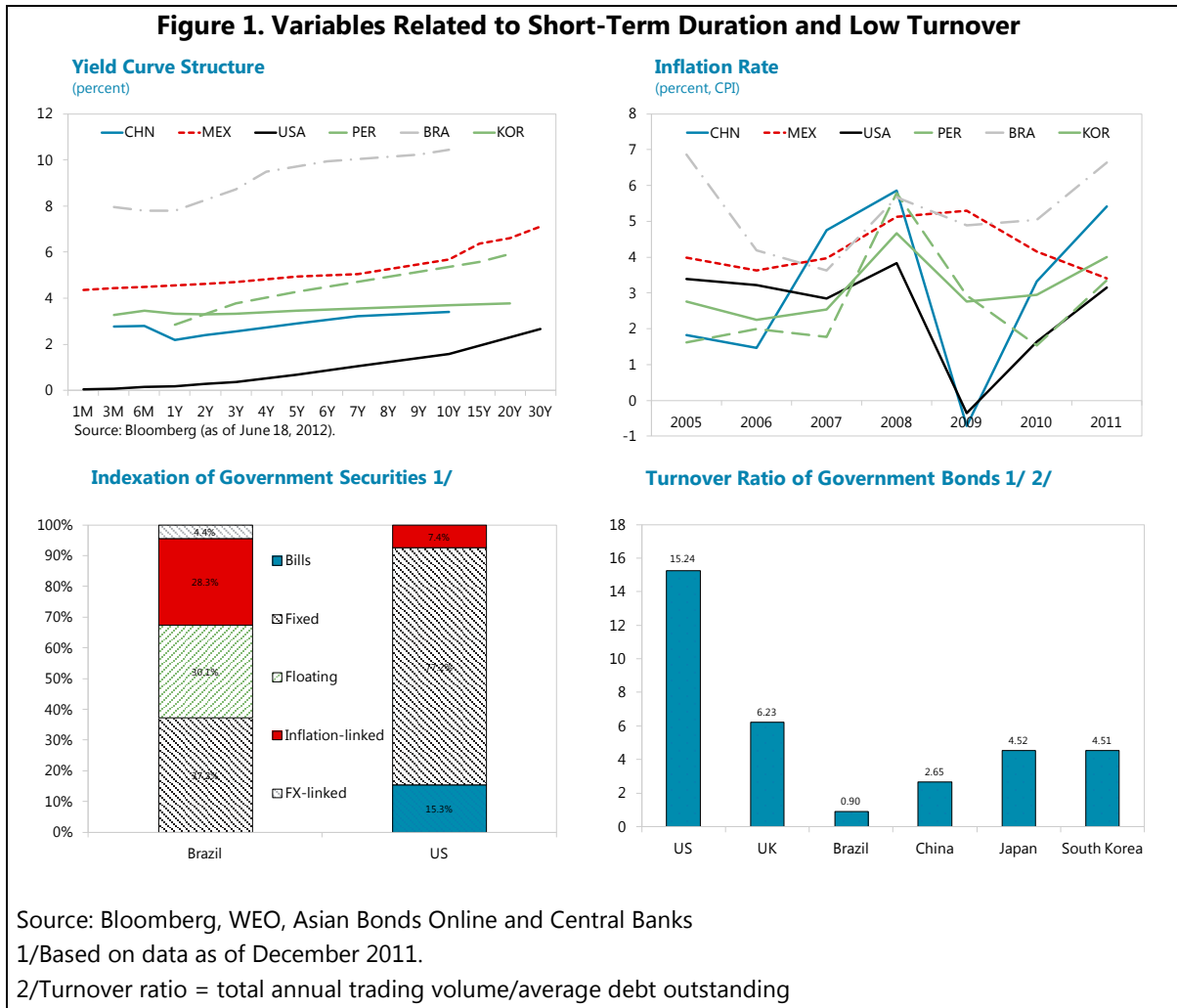
This paper reviews the state of play in Brazil and steps for further development. It starts by taking stock of the current status of local capital markets in Brazil, including in terms of size, investor base, maturity structure, both for the public and private sector. It then discusses what the key challenges are, and policy options for further development.

II. BRAZIL'S CAPITAL MARKETS—ISSUES AND STATUS

A. Short-Term Maturity and Low Turnover

Brazil's capital market remains focused on short term instruments. Most financial contracts among residents are indexed to the overnight interest rate, although there has been a gradual trend towards increasing duration in the recent years. This largely short term structure reflects long-standing fundamental factors, including a legacy of past high inflation that typically is associated with a more short-term focus for investing. Moreover, the flatness of the yield-curve—a reflection of the high level of short-term interest rates and degree of indexation of debt holders—contribute to a low secondary market turnover ratio, constraining overall market development (see Figure 1).

¹ Levine, R., "Financial Development and Economic Growth: Views and Agenda," *Journal of Economic Literature*, Vol. 35, No. 2. (Jun., 1997), pp. 688–726.

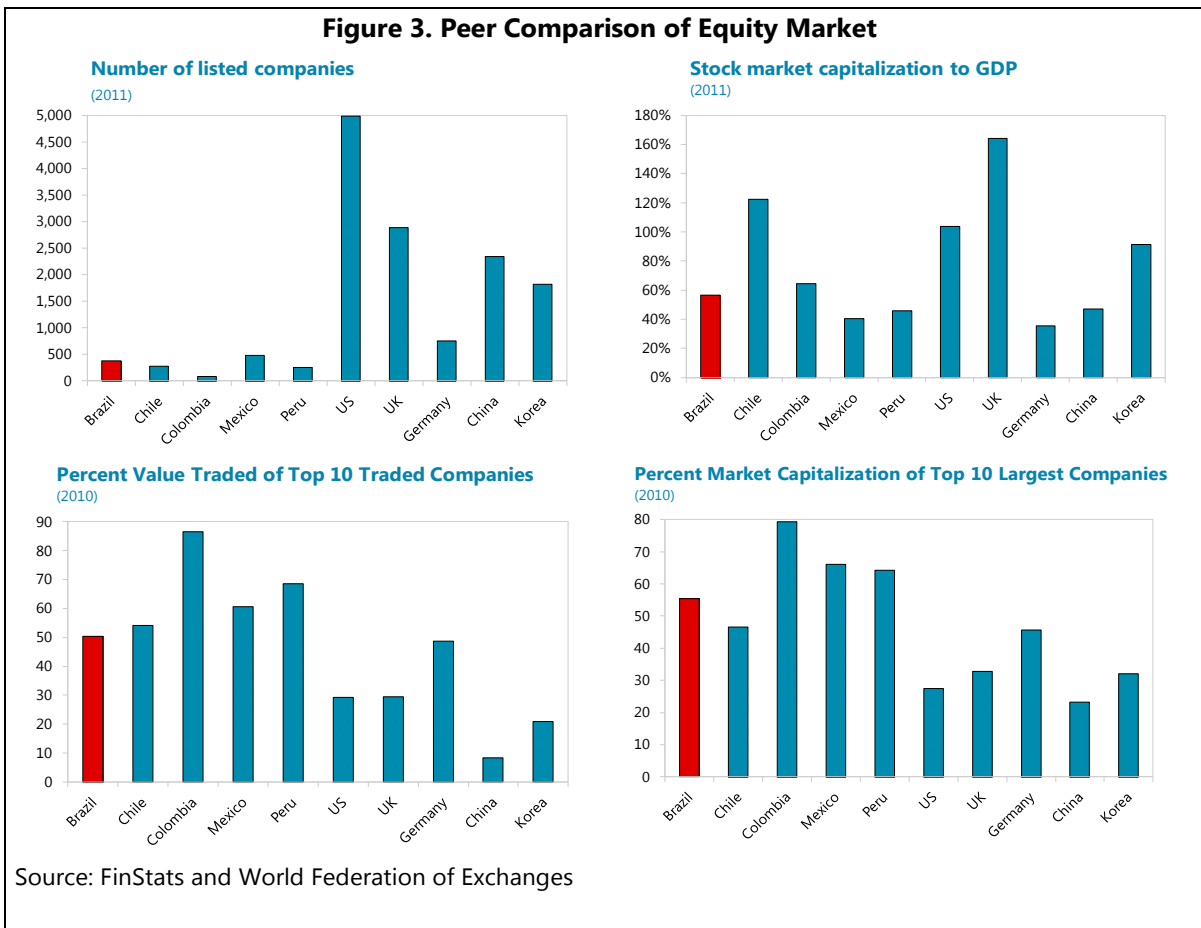
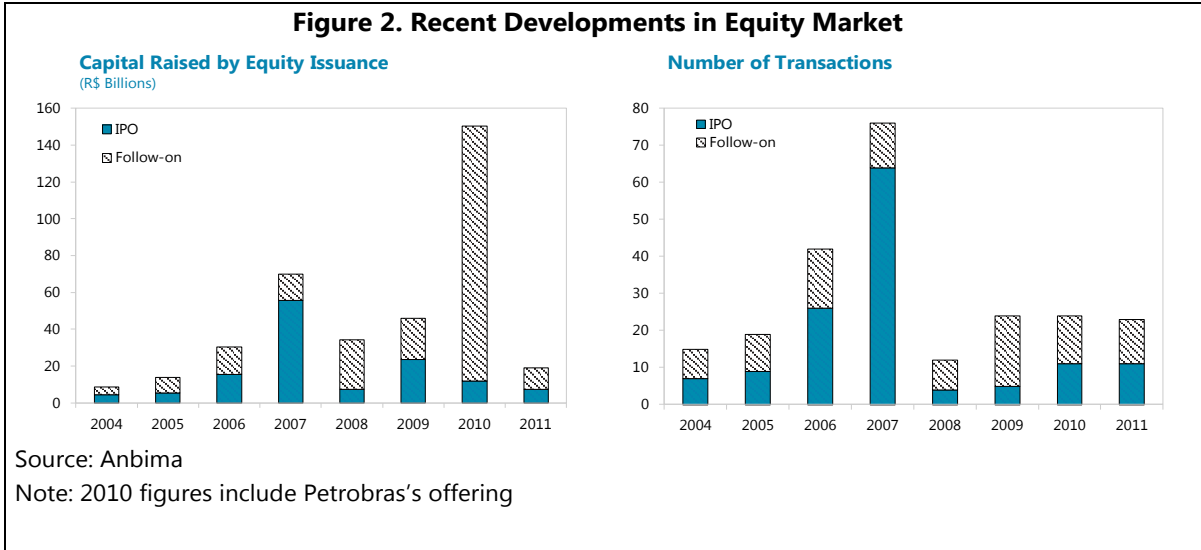


B. Equity Market

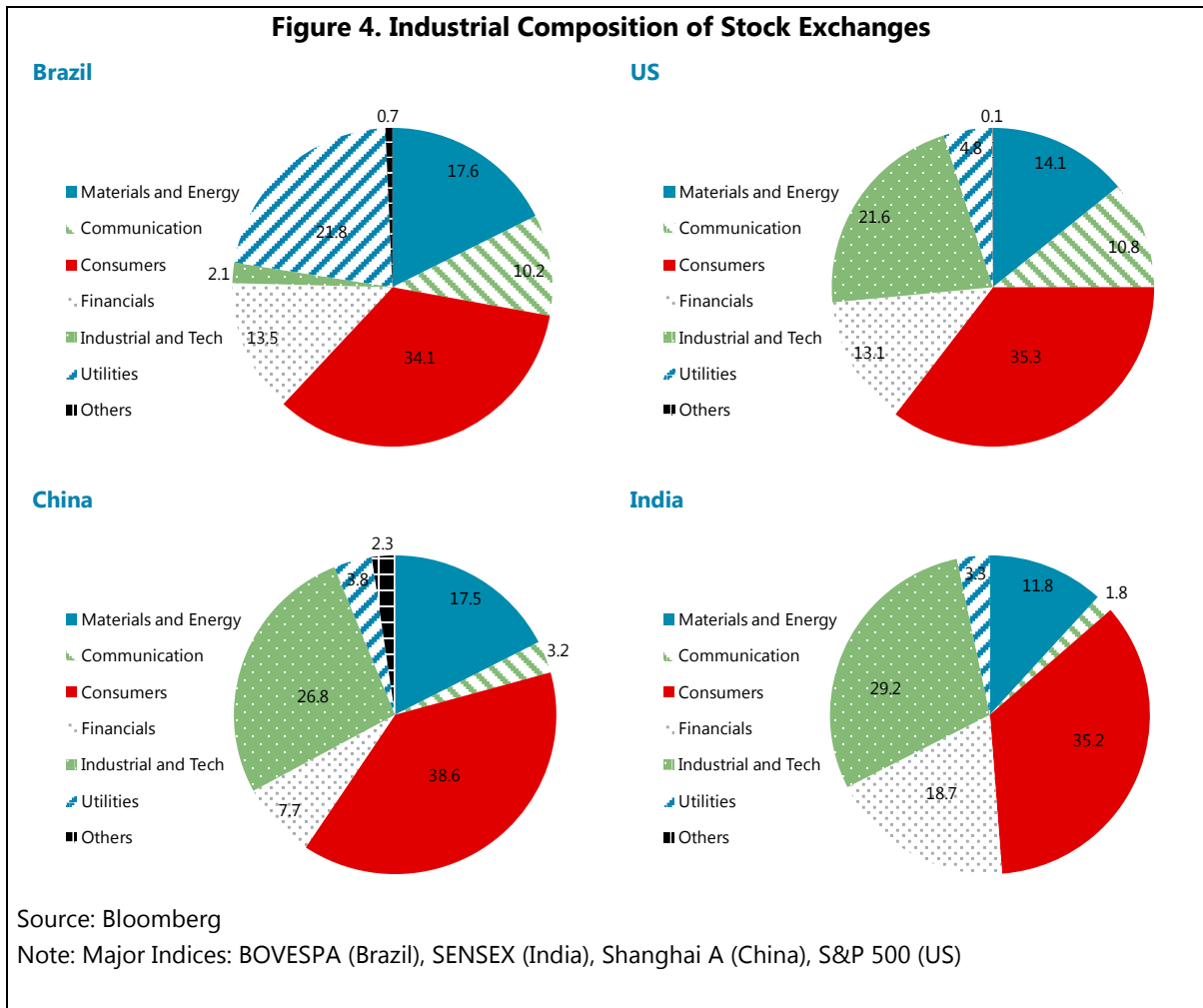
Brazil's equity market has grown rapidly in terms of both market capitalization and transaction volumes. Total equity market capitalization was about 55 percent of GDP in 2011 with a diversified investor base including individuals, institutional investors, financial institutions, and foreign investors. This growth has been fueled by a combination of strong market performance and a steady increase in the total quantity of shares. The introduction of the Novo Mercado ("New Market"), which encouraged corporations to adopt higher standards for corporate governance, transparency, and minority shareholder protection, as pre-requisites for listing, has also contributed to further market development.

Despite these gains, the Brazilian equity market still has a small number of listings. Following a record 76 offerings (IPO and follow on) in 2007, the number of offerings in the past three years has stabilized at lower levels (see Figure 2), in part reflecting weak global financial conditions. The growth in market capitalization and the number of listed companies has slowed in the recent years. Cross-country comparisons show that the number of listed

companies is still lower than in advanced economies and Brazil's peers in Asia. Indeed, the share of the top 10 companies' in market capitalization has remained over 50 percent in the recent years, showing limited diversification of issuer base, in line with the experience in several other EMs (see Figure 3).

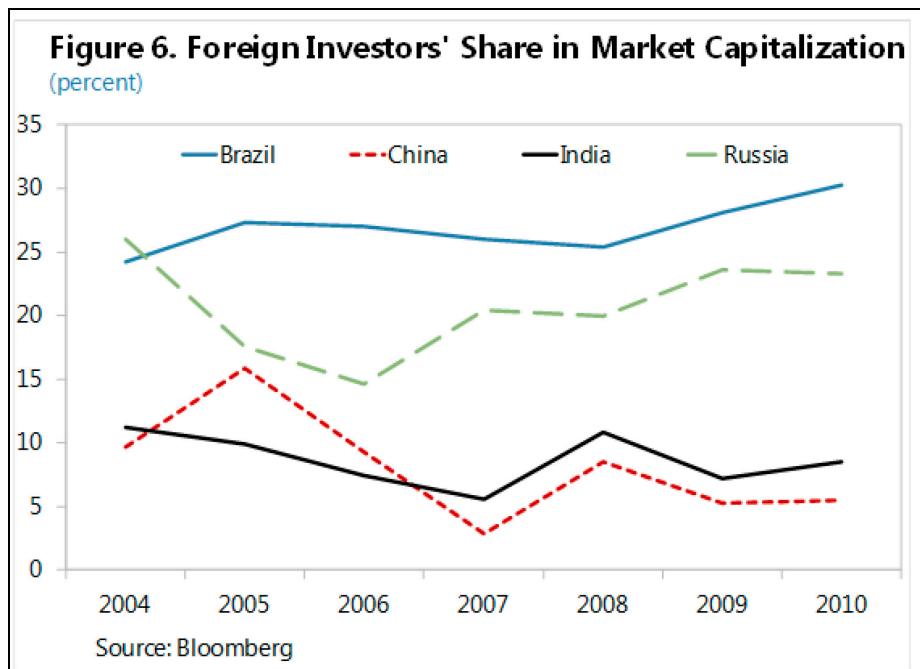
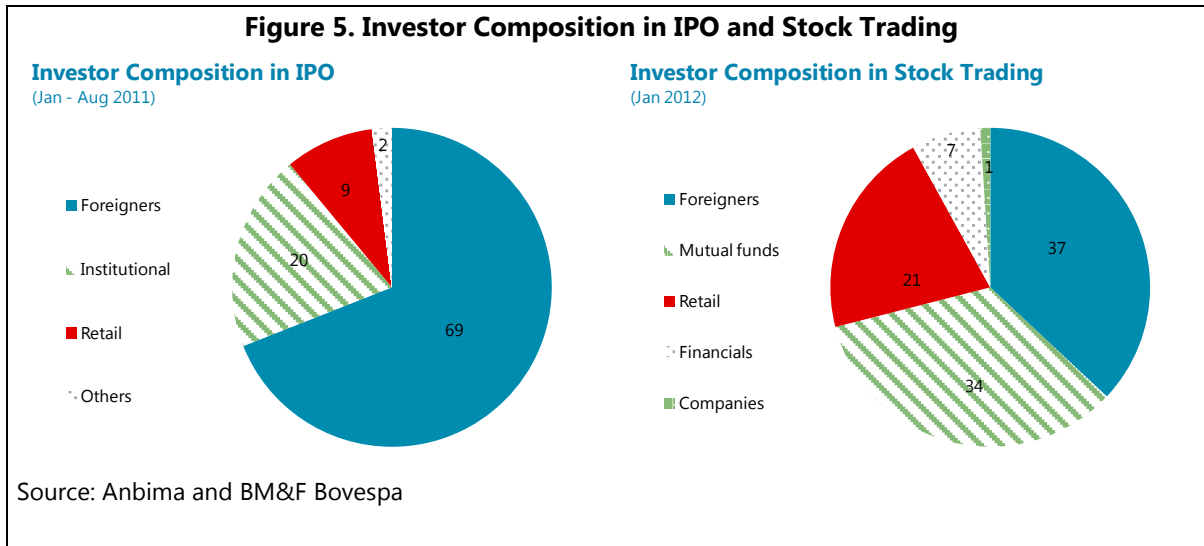


More specifically, industry composition in the stock exchange is concentrated in a few sectors. The major equity index (Bovespa) has large weights in basic materials and energy, which are sensitive to the global economic cycle. In contrast, industrial and technology sector take a much smaller share (2 percent level) than in other countries (over 20 percent). This concentration is likely a reflection of the key role in Brazil—including in recent growth dynamics—of the commodity sector (see Figure 4).



Foreign investors are significant players in the equity market. Indeed, foreigners are majority investors, especially, in public offering market. Most non-resident investors are domiciled in the U.S. and Europe, introducing an important link between the offering market and conditions overseas (see Figure 5). In August and September 2011, for example, there was no share issuance—several public offerings were canceled or postponed due to investors’ concerns on contagion risks from the euro zone. Cross-country analysis also shows that foreigners’ share in market capitalization has been higher than in other large emerging economies (see Figure 6).

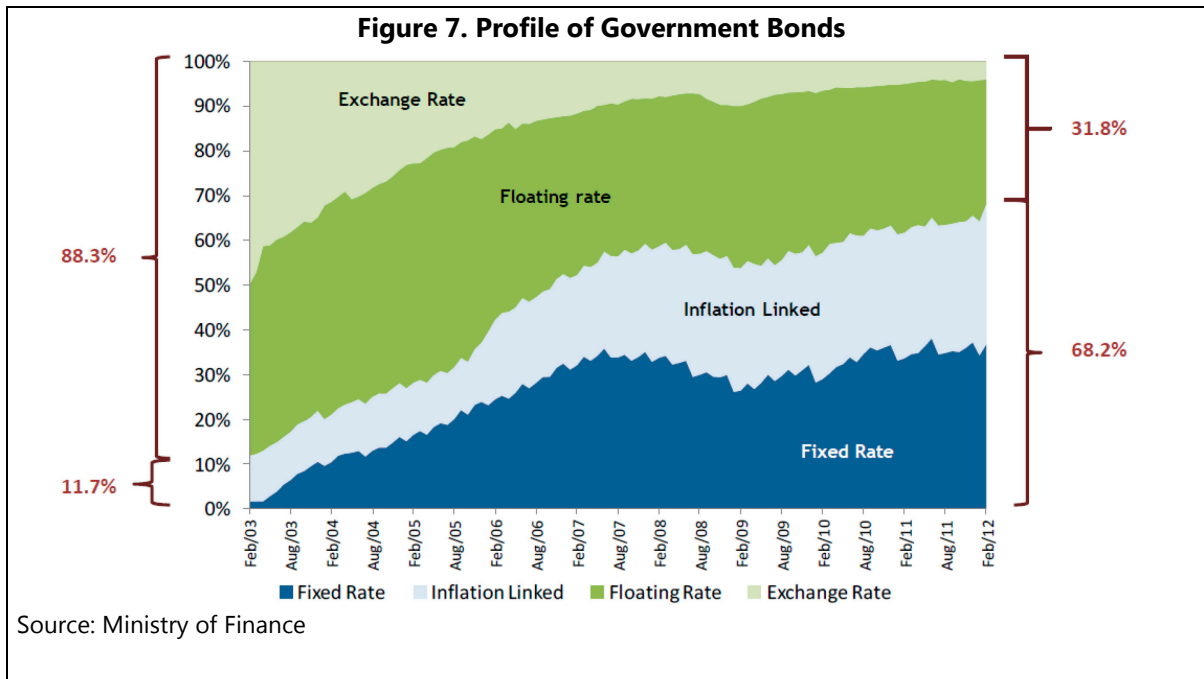
Local institutional investors in Brazil—pension funds and mutual funds—have been less active in the equity market. For instance, mutual funds’ asset allocation has been concentrated in safe and liquid assets such as government bonds and repo transactions. Pension funds, whose return target is typically set to achieve a certain spread over the rate of inflation in the context of a high short-term interest rate environment, tend to invest in inflation-linked bonds rather than equities. As such, lower interest rates and rising valuations in the equities, if supported by fundamental improvements in corporate prospects, could attract a greater number of companies to go public.



C. Government Bond Market

There has been substantial progress in the development of the government bond market. Key steps include a lengthening of the yield curve, reduction in external exposure and diversification of the investor base. This has been supported by improved macroeconomic conditions, foreign investors entering the fixed rate segment of local currency government debt, and well designed microstructure reforms regarding issuance policy and auction process. As shown below, the government bond market has become more resilient to various risk factors.

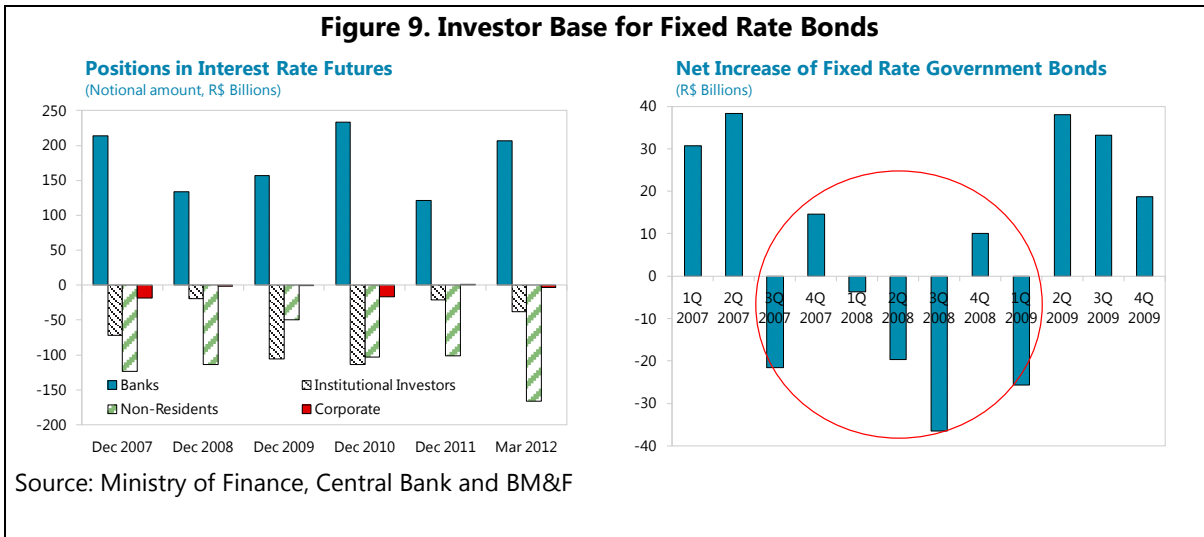
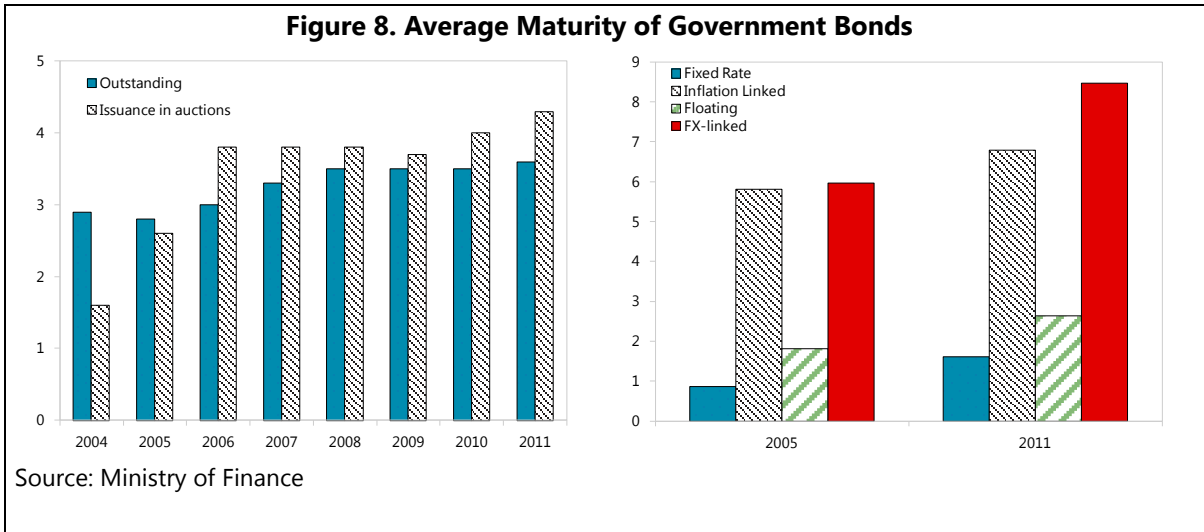
Market risk: the share of fixed rate bonds and inflation linked bonds has increased while the issuance of floating and FX rate linked bonds has decreased.² The combined ratio of fixed rate and inflation linked bonds increased to around 70 percent in 2011 from 12 percent in 2003. The reduction in the public sectors' exposure to changes in short-term interest rate and FX variation has improved the risk profile of public debt (see Figure 7).



However, extending the maturity of public debt has proved a challenge. The average maturity of fixed rate government bonds has remained under 2 years while that of all government bonds is just over 3 years (see Figure 8). This may reflect the legacy of gradual macro stabilization, wherein private investors continue to prefer shorter term variable rate debts or indexed instruments. Indeed, most domestic investors swap their exposure to fixed rates for

² The majority of floating rate securities are linked to the Selic rate and foreign currency denominated securities are subject to volatility in the currency market.

variable rates in the DI futures market with foreign investors traditionally taking the opposite position. As such, foreign investors have provided important liquidity to fixed rate bonds. However, this could create volatility in case of a sudden exit of these investors from the market.³ Indeed, the experience during the crisis highlighted the need to develop depth in the investor base for fixed rate bonds. Increased risk aversion in both global and domestic markets led investors to reduce their demand for fixed-rate bonds with net outflows during the crisis period (see Figure 9).

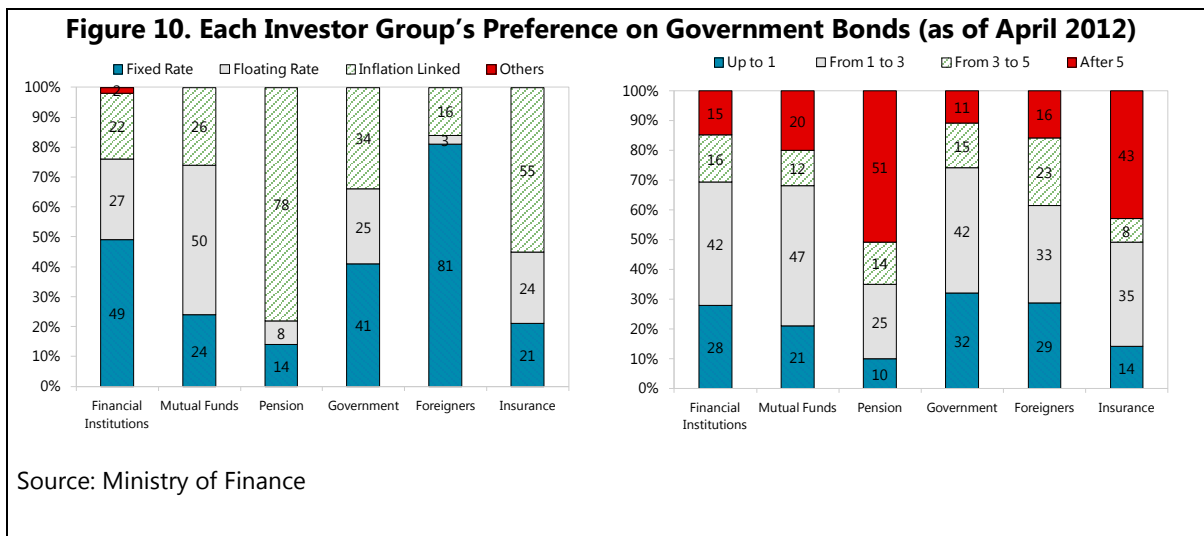


Refinancing risk: the concentration ratio of short-term debts—especially less than 1 years—has improved gradually. The percentage of government debts with less than 12 month

³ There is limited data on the composition of non-resident operations in the derivative market. Arguably, the pay-off structure in the derivatives markets could be more attractive for short-term investors than in the cash market.

maturity decreased from 39.3 percent in 2004 to 21.9 percent in 2011. Also, the share of debts with maturity between 1 and 3 years has shown the same pattern, resulting in more balanced maturity distribution in the bond markets.

Investor base: participation by different investors in the government bond market has grown more diversified. Of the various actors in this market, banks tend to invest in relatively shorter term bonds to match their short-term liability. Pension funds and insurance companies prefer hedging long-term inflation risks by investing more in inflation linked bonds. Non-residents concentrate their direct exposure to fixed rate instruments, but with maturity less than 3 years. Mutual funds, which tend to be more sensitive to high frequency changes in financial market conditions, have demonstrated a greater preference for floating rate bonds (see Figure 10).



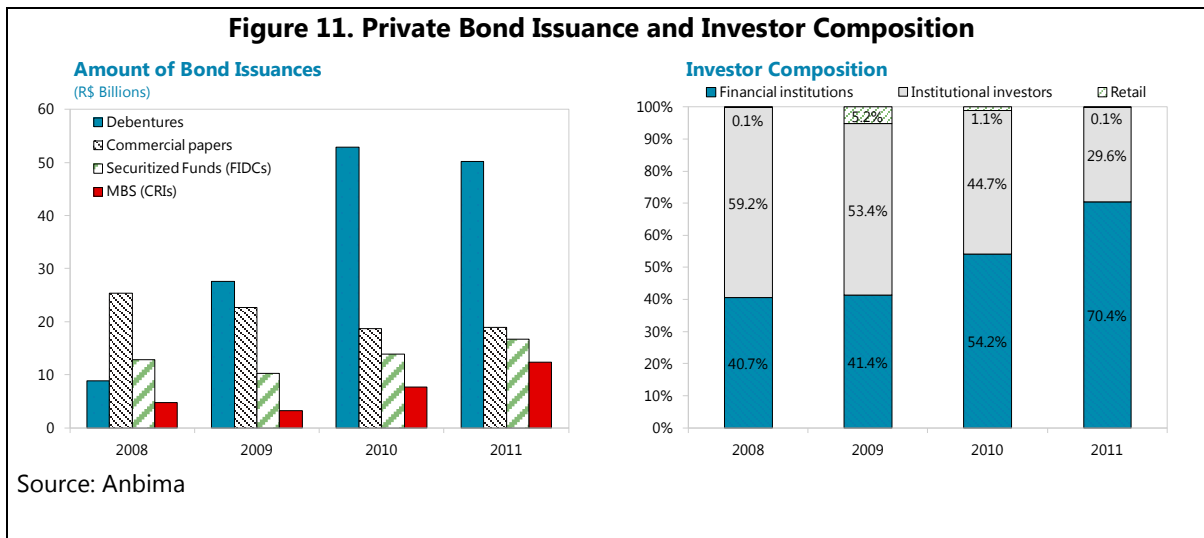
D. Private Bond Market

The private bond market remains much smaller than that for the government. The outstanding issuance of corporate bonds has risen to almost 10 percent of GDP in 2011, but the market is still very concentrated in short duration rates, with a limited investor base and less diversified issuers. This suggests that the private fixed income market is not a significant long-term financing source for non-financial corporations.

Indexation: Around 90 percent of private bonds are linked to the DI rate, resulting in little incentive for active trading. The share of fixed rate bonds still remains very low at about 1 percent of total private bonds, suggesting that investors remain reluctant to take interest and credit risk in the private corporate sector. Moreover, prime corporations may have relatively little incentive to issue relatively costly long term debt given that they have access to long term financing from BNDES, indeed at lower than market rates of interest in many cases.

Investor base: about 70 percent of private bonds were purchased by banks in 2011. Their participation has increased further recently partly because they have faced constraints in expanding consumer loans given increased risk and higher cost in the sector, and therefore have sought alternative higher-yield investment instruments. Liquidity in the secondary market is very limited as many banks tend to hold private bonds until maturity. Retail investors' participation remains low (see Figure 11).

Securitized instruments are rapidly growing, albeit from a very low base. The most active instrument is the FIDC (Asset Backed Securities), used to securitize a variety of assets including trade receivables and loans, as well as expected revenues in infrastructure projects. CRIs (Mortgage Backed Securities) are used to securitize mainly loans related to sale of real estate. This product has been one of the fastest growing instruments in Brazil. This is partly due to the product's relatively low starting point, as well as the high marginal funding needs of the real estate sector—a sector that has been growing strongly, partially related to large housing needs in Brazil.



The small size of the private bond market also constrains its role. One of important benefits of a developed private bond market is that it can act as an alternative funding source when corporations' access to overseas markets is limited or in the face of a domestic bank credit crunch. The disruption in the global money and credit markets in 2008 led to a liquidity squeeze for Brazilian corporations and financial firms. However, issuance of private bonds decreased during the crisis period (see Figure 12), reflecting in part the difficulties in efficient pricing and relatively short track records for borrowers. This was a sharp contrast to the experience in other emerging markets such as Korea and Chile where the deeper private bond market served as a buffer, providing an alternative source of funding during the crisis (see Figure 13 and 14).

Figure 12. Corporate Financing during the Crisis: Brazil

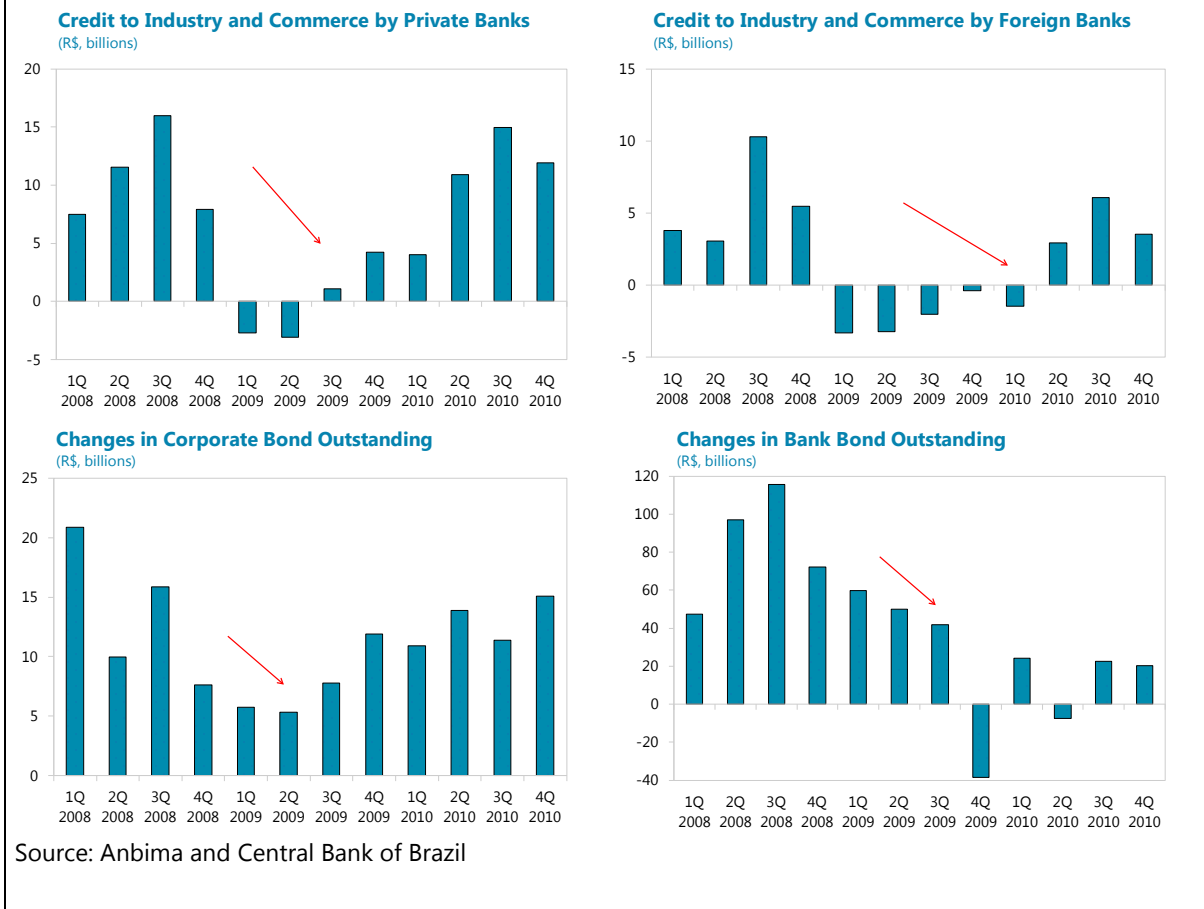
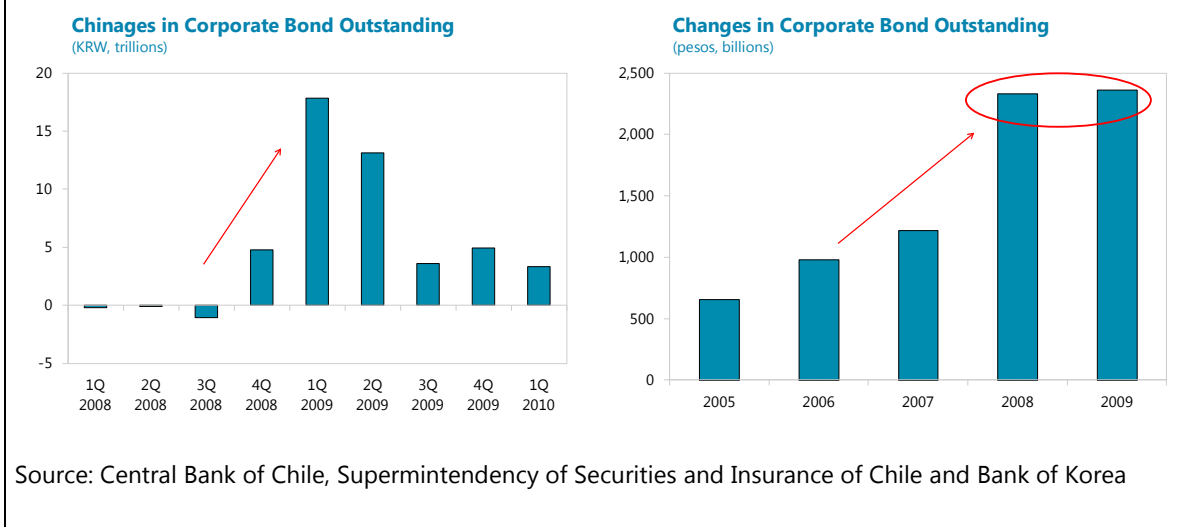
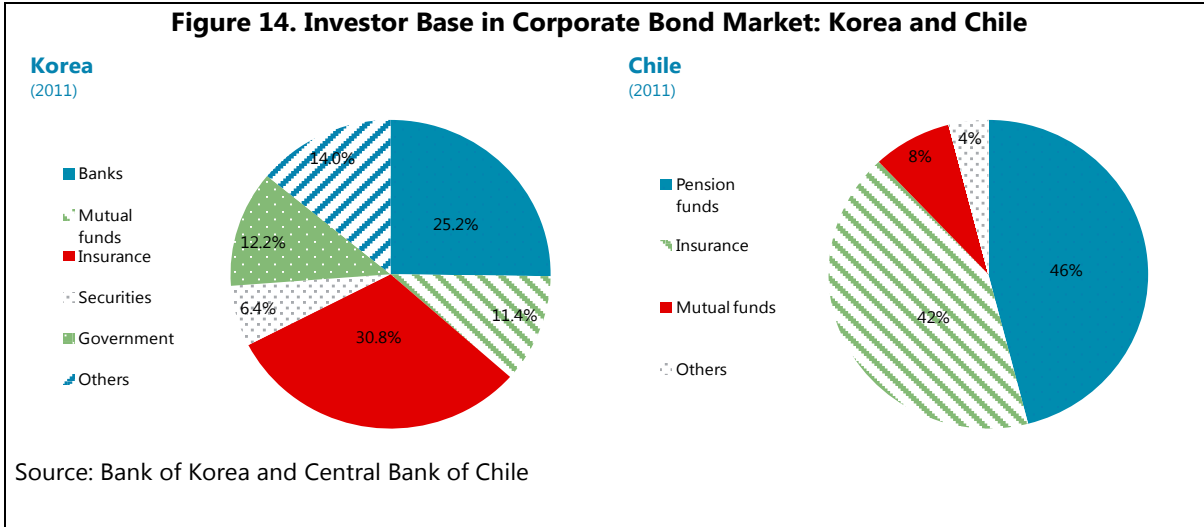


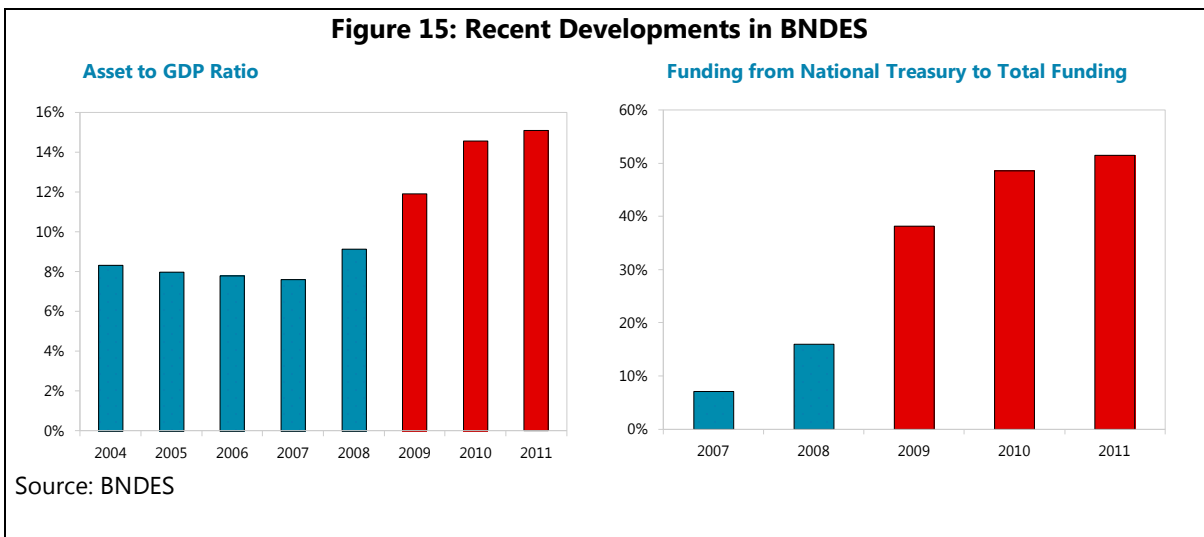
Figure 13. Corporate Bond Market during the Crisis: Korea and Chile





E. Role of BNDES

BNDES has traditionally had an important role in the Brazilian financial system, but its size has doubled in the post-Lehman period. BNDES has typically been a major source of long-term financing for industry and infrastructure. During the crisis, it played an important counter-cyclical role as private bank credit fell off sharply in 2009 during the height of the Lehman related global tensions. However, it has been accompanied by a doubling of the size of BNDES' balance sheet from 7½ percent of GDP in 2007 to over 15 percent of GDP in 2011 (almost 10 percent financial system lending) (see Figure 15).



III. KEY POLICY CHALLENGES AND OPTIONS

Overcoming the current challenges and fostering further capital market development will require efforts across a broad policy front. Significant efforts to realize this crucial agenda are underway and could be deepened further. A *sine qua non* is to continue to further entrench the important and hard-won gains on macro stability that Brazil has achieved in the last years, including on the fiscal responsibility and inflation targeting frameworks. This continued predictability will further anchor the economy and facilitate a shift from shorter to longer term horizons for investment planning and the structure of finance. Raising savings rates should also contribute to gradually reduce Brazil's high interest rate structure.⁴ Continued efforts to build fiscal savings and raise productivity by focusing on infrastructure, logistics, and human capital could help a virtuous circle boosting growth potential, underpinned by a dynamic equilibrium of higher investment and higher saving rates.

A. Issuers' Side: Enhance Supply and Attractiveness of Long-Term Instruments

The authorities have made continuous efforts to build benchmarks at different points along the yield curve. The aim of this strategy is to further develop the interest rate term structure in the local currency, which would allow better pricing and liquidity of bonds issued both by the government itself and by the private sector. To this end, the authorities have increased the average maturity of the outstanding debt and smoothed its maturity profile. Moreover, in March 2012, the National Treasury carried out the first auction of fixed rate bonds due in January 2023, which will be the new 10-year benchmark fixed rate bond in the domestic market.

The authorities have also led some policy initiatives to encourage investors to adopt new references moving away from short-term indexation. For example, the main securities exchange (BM&F Bovespa) introduced reference rates for 3 and 6 months aiming at extending the reference rate for investors. In February 2012, the National Treasury undertook securities exchange operations with Extramercado Funds⁵ in order to adjust their portfolio. The investment policy of these funds has been adjusted such that they must be referenced to one of the Anbima Market Indices (IMA). The exchange operations resulted in a redemption of R\$ 61 billion in securities linked to Selic overnight rate (LFT) and an increase in fixed rate and inflation-linked bonds. A similar exchange program was also conducted with the Government Severance Indemnity Fund (FGTS) as well, resulting in a redemption of R\$ 38 billion in the floating rate bonds. More broadly, there may be a case for trying to lead the market development by issuing longer term debt, albeit initially at a relatively high cost,

⁴ See Segura-Ubiergo (2012).

⁵ Extramercado funds comprise the available resources originated from the revenues of non-financial state-owned companies included within the Indirect Federal Administration, such as Eletrobras, Correios and Chesf (it excludes Petrobrás), as well the resources of the Workers' Support Fund (FAT), the Coffee Economy Defense Fund (Funcafé) and the National Education Development Fund (FNDE).

in order to jump-start the market transformation process towards a better developed yield curve.

Additional efforts are underway to further increase the attractiveness of capital market investment in Brazil. The income tax exemption was extended to foreign investors' investments in long term corporate bonds and infrastructure bonds.⁶ The private sector is also keen on this policy agenda. The private capital markets association (Anbima) launched a "New Fixed Income Market" project to facilitate long-term financing operation. This proposal includes a set of measures aiming to support secondary market liquidity that include standardization of issues and the plan for a liquidity improvement fund as well as liquidity guarantee fund.⁷ This proposal has been showing moderate progress. Cemig, one of Brazil's major power generators and BNDESPar, the holding company of BNDES, issued corporate bonds under the guidelines of this project.⁸ Some mutual fund managers have started taking Anbima's bond indices—especially inflation-linked bond indices—as benchmarks for their investment funds.

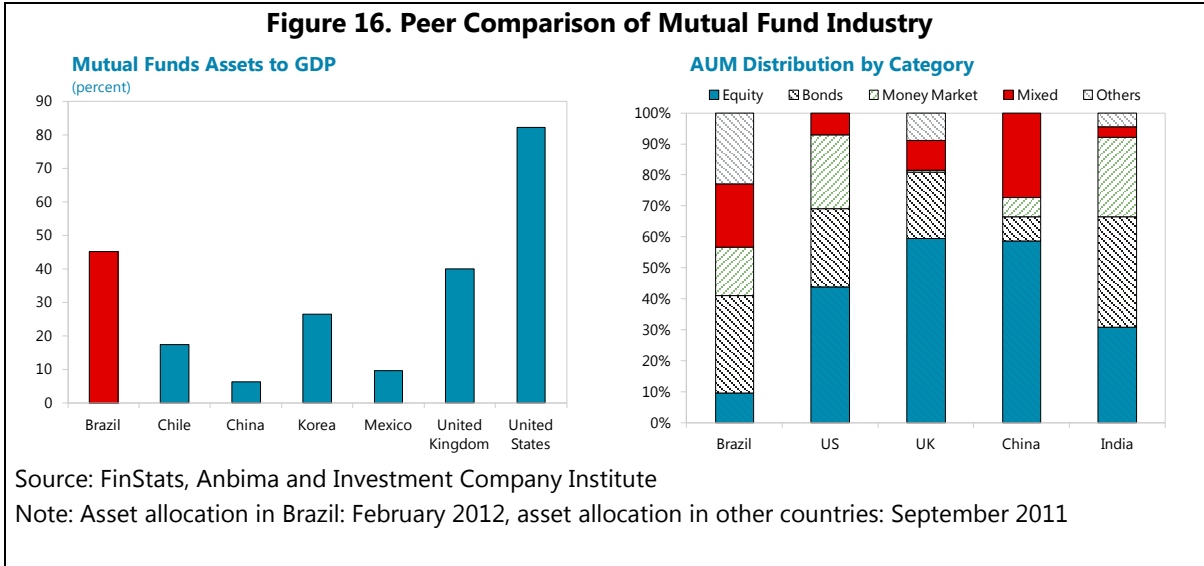
B. Investors' Side: Boost Potential in Mutual Funds

Brazil has the largest mutual fund industry in Latin America, and indeed is large also by international standards. Nevertheless, the mutual fund industry has been concentrated on short-duration and highly liquid assets, resulting in its being a minor contributor to the growth in the capital markets. In particular, the asset allocation to equity is much lower than in other countries (see Figure 16).

⁶ In October 2008, the Korean authorities introduced tax incentive scheme for long-term (more than 3 years) equity and corporate bond mutual funds to support long-term financing for corporations. This measure contributed to stabilizing investor sentiment and building stronger investor base during the crisis period.

⁷ Liquidity Improvement Fund: An investment fund with public and private resources that will be managed by private agents. It will act as a market maker, buying and selling New Market bonds; Liquidity Guarantee Fund: An investment fund performing a lender task for agents holding New Market bonds that have a provisional liquidity problem that could be solved by a sale of the bonds against a haircut.

⁸ Key conditions include the following criteria: Issuance: Minimum 10 investors; Maximum holding 20 percent for each; Unit Value of R\$ 1,000; Term: 4 years minimum average term; call options not allowed in the first 2 years; Rates admitted: Fixed Rate, Price Index, Brazilian Floating Rate for 3 and 6 months; Rating: required, yearly updated.



This environment could change if the downward shift of yield curve continues. Anecdotal evidence suggests that institutional investors are becoming more sensitive to changes in financial market conditions and therefore are increasingly interested in higher-return generating assets and more sophisticated styles in fund management. Indeed, the fall in the short term interest rate since last August appears to have been gradually affecting investors' behavior. Clients' requests for daily liquidity have decreased at the margin. These behavioral changes have resulted in mutual funds' reducing their asset allocation into repo transactions and increasing their exposure to corporate bonds (see Figure 17). Indeed, simple regression analysis on the relationship between flows to different categories of mutual funds and changes in interest rates suggests that the downward shift in the yield curve could lead to some reallocation of assets away from DI linked instruments (see Figure 18).

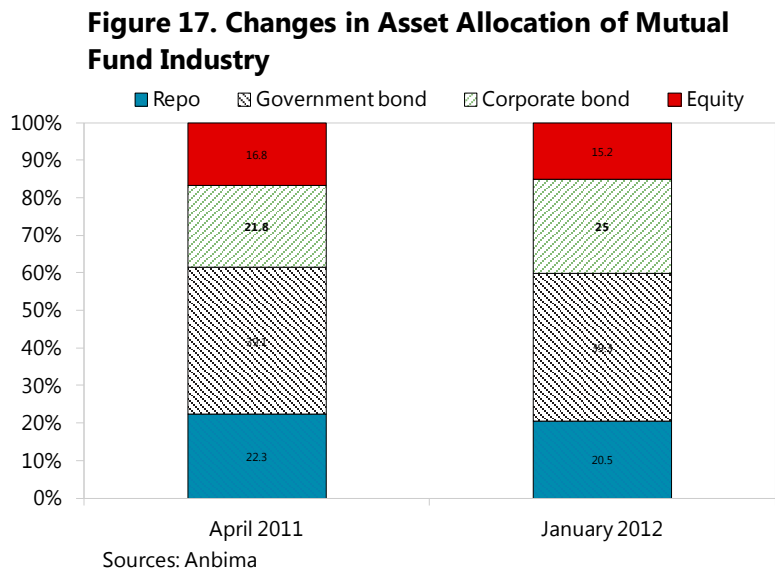
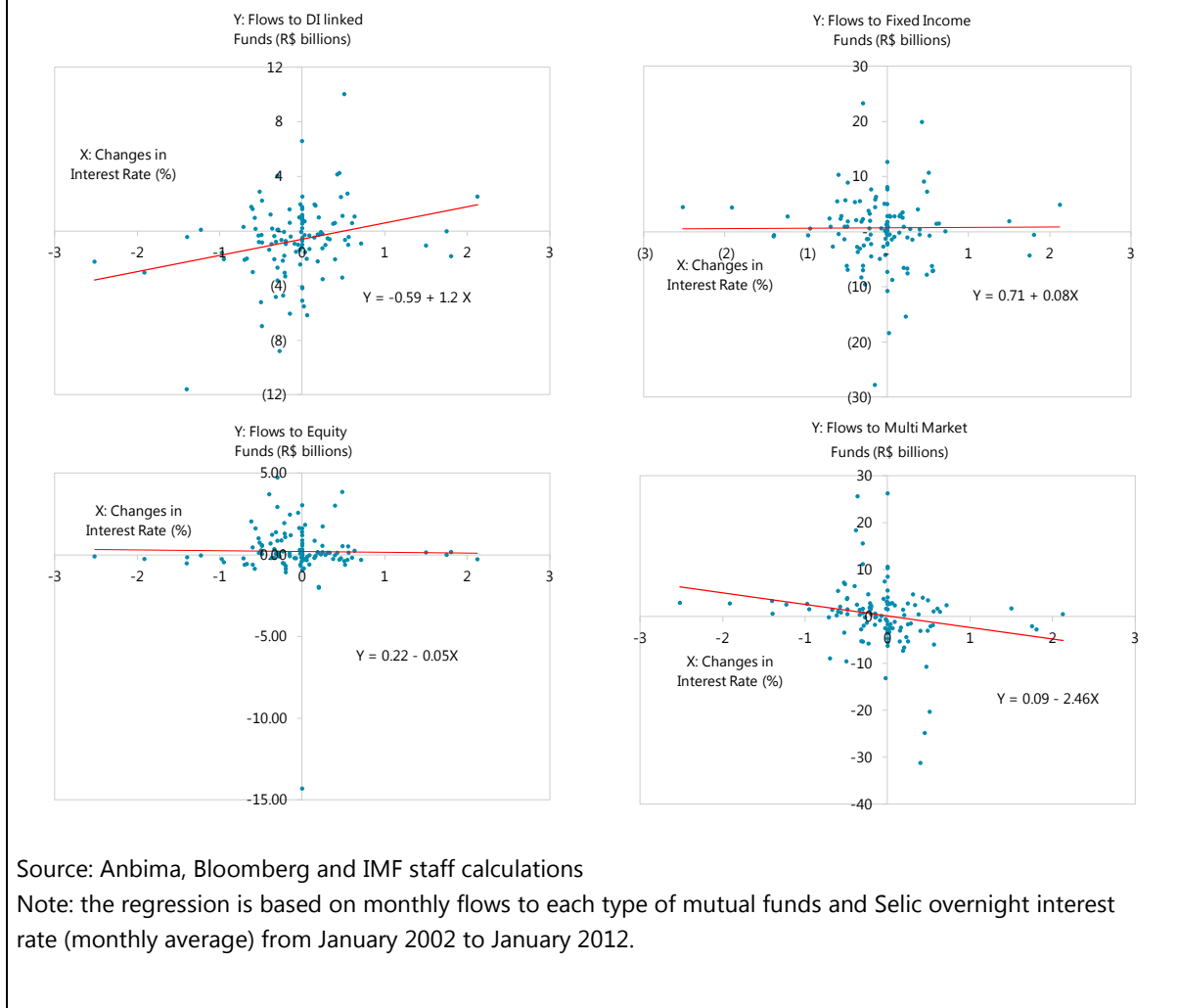
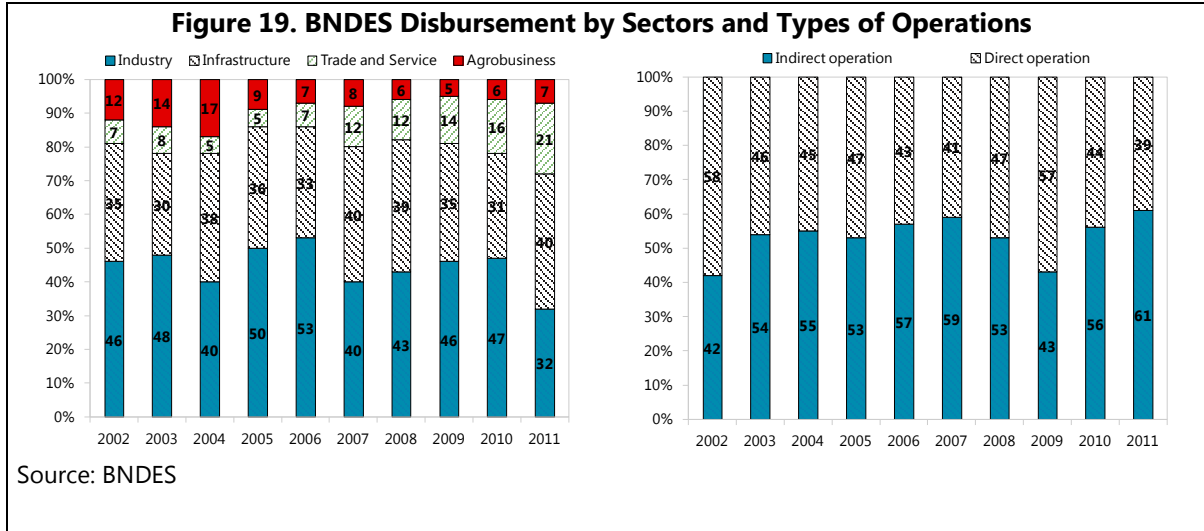


Figure 18. Mutual Fund's Sensitivities to Changes in Interest Rate

C. Changes in the Role of BNDES

BNDES lending could be well-targeted to areas where there are market failures or significant externalities, such as lending to SMEs and long-term projects, including for infrastructure. BNDES has traditionally provided significant financing to large strategic companies in Brazil, notwithstanding that these have recourse to alternate sources of financing. Recently, its resource distribution has shifted at the margin toward its more traditional development banking operations. The share of infrastructure increased to 40 percent in 2011 from 31 percent in 2010 while the share of industry decreased to 32 percent—though given the substantial increase in BNDES lending, the absolute levels of credit for industry have increased. (see Figure 19). Looking further ahead, BNDES could gradually shift toward promoting the development of long-term capital markets, including by playing a role in standardization and market making (e.g., co-financing of infrastructure projects with the private sectors) in the long-term financing market.

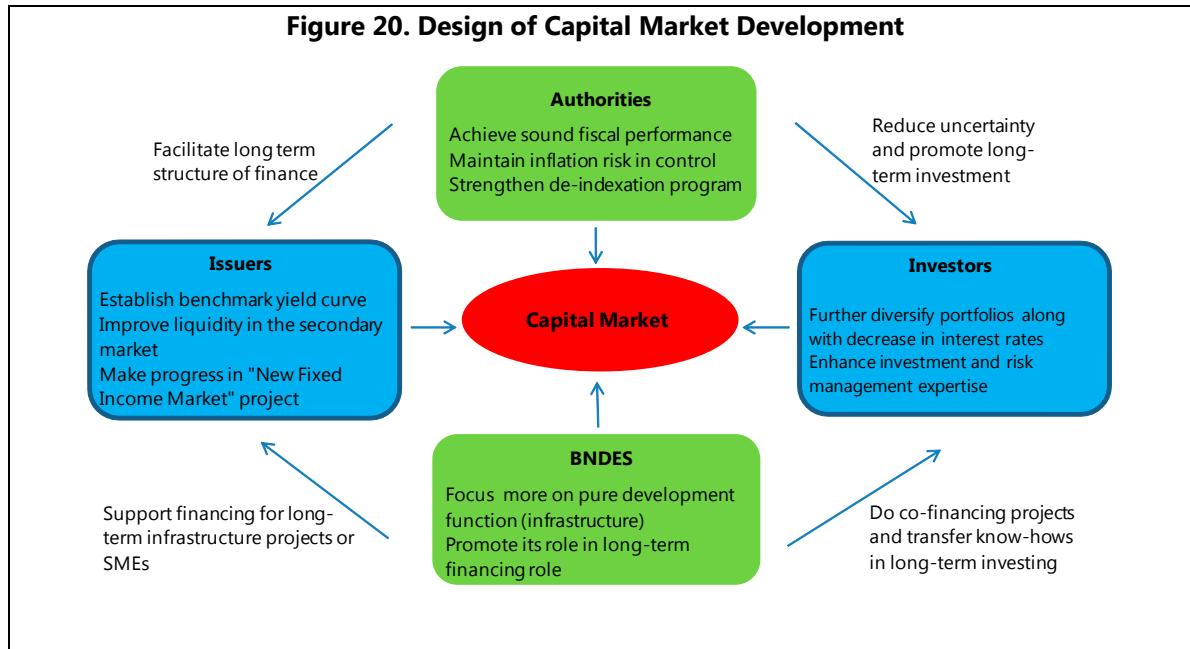


IV. CONCLUSIONS

During the last decade, Brazil has achieved substantial progress in capital market development. The menu of available financial instruments has been expanded, market infrastructure has been reformed and strengthened, and a diversified investor base has been built. This was a high-priority agenda for the authorities, and the reforms were introduced in close cooperation with market participants.

Nonetheless, challenges remain and the continued development process will need careful management. Despite the country's great potential (e.g., large size of economy, sound fiscal management, and large mutual fund industry), Brazil's capital markets are still facing a number of challenges. These include still prevalent short-term indexation, investors' risk aversion to long-term fixed rate bonds, still low liquidity in the secondary market, and managing the role of BNDES. A shift to a lower yield curve environment should continue to gradually take place. But further progress will require continued policy effort to assure macro stability and financial sector reforms to promote the development of longer-term private finance. (see Figure 20). It will also require close monitoring, to avoid a build-up of risks that could be engendered by the search for yield as the yield curve shifts down.

Figure 20. Design of Capital Market Development



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