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Institutional Investors, Global Savings and Asset Allocation¹

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1 Motivation and focus of the Report

In September 2005, the Committee on the Global Financial System (CGFS) set up a Working Group with the mandate to analyze the behaviour of institutional investors and, in particular, how a *specific set of regulatory and accounting changes* which were underway in a number of countries, or forthcoming in some others, could impact on their *asset allocation decisions*, and eventually, on *financial asset prices*. One reason for the increased interest in better understanding about the investment behaviour of institutional investors was the fact that, for quite some time during 2004-2006, pension funds were widely cited as one of the possible “special factors” contributing to explain the low level of long term interest rates, together with other factors such as the demand of Asian central banks for US securities or the recycling of petrodollars¹. According to this view, some changes in the regulatory and accounting framework of DB pension funds in a few key countries would have induced shifts in their portfolio allocation increasing long-term bond holdings at the expense of equities. Since institutional investors have become very large players in global financial markets, it is plausible that even small changes in their asset allocation might have an important impact on financial asset prices.

In line with the CGFS mandate, the Working Group was endeavoured to analyze the effects of those regulatory and accounting changes on pension funds and insurance companies’ behaviour, and to pay particular attention to market dynamics and financial stability implications arising in that context.

The WG comprised representatives of 19 CGFS member central banks from industrial and emerging countries, including the BIS and the ECB. A review of existing work on global saving trends was conducted in preparation of the report. Also, a database on pension funds and insurance companies’ asset allocation was compiled on a country basis for a large sample of 14 industrial and 4 emerging countries, based on balance sheet data. Over 60 pension funds and insurance companies were interviewed during the course of the preparation of the report, and a full description and assessment of the key regulatory and accounting changes affecting institutional investors in their each country was undertaken.

In February 2007, the report “Institutional Investors, Global Savings and Asset Allocation” was released, after endorsement by the CGFS.

2 Main Trends in the Asset Allocation of Pension Funds and Insurance Companies

Institutional Investors have become key players in global financial markets, including emerging markets, with their assets under management rapidly catching up with those of the banking system over the last decade. According to our database, assets under management by pension funds and insurance companies reached USD 30 trillion in 2005, almost duplicating in ten years. Only in Latin America, pension funds held over USD 185 billion dollars in 2005, which is remarkable, taking into account the relative small size of financial systems in the region, and the fact that most reforms took place only during the last decade.²

¹ Certainly other more fundamentals factors have also been put forward as possible explanations for the “conundrum”, but they are out of the scope of this presentation.

² See Chan, Suh and Santaella (2007), background paper to CGFS (2007)

In emerging markets, institutional investors are still small in an absolute sense, but they are significant relative to the size of local markets, and more importantly, their growth potential is large in part because of ongoing public pension reforms. Their growth in turn is likely to be concentrated in the defined contribution (DC) pension sector because the majority of countries that are moving to funded pension systems are adopting a structure based on a DC arrangement. Global institutional investors have also substantially increased their exposure to emerging market economies in recent years.

Different objectives and strategies determine the investment behaviour of different institutional investors. For instance, the asset allocation of insurance companies or defined benefit (DB) pension schemes that bear investment risk can be expected to be different from that of mutual funds or defined contribution (DC) pension schemes, in which the risk is directly born by the individual. Asset-liability management strategies or a need to close funding gaps may be characteristic of the investment behaviour of the first group of investors, but not of the second.

Looking into the asset allocation of institutional investors over the last ten years, it can be observed that, despite substantial variation across countries, on average, asset allocations are rather stable over time. Insurance Companies on average tend to hold a larger proportion of bonds than equities in their portfolios (48% versus 25%), and this has not changed much over time -if anything, bond holdings appear to have increased. For pension funds, the opposite is true: asset allocations across countries vary much more but, on aggregate, they hold more equity than bonds (48% versus 38%), and this trend has also been reinforced slightly over time.

In conclusion, despite certain variation during the last decade in the relative proportions of each asset class, between 1995 and 2005, no robust evidence in favour of increased bond holding was observed at the aggregate level, although there were a few countries where bond holdings did increase.

One important difference between the asset allocations of institutional investors in industrial and emerging markets is that, in the latter, the proportion of bonds in pension funds and insurance companies' portfolios tends to be considerably larger. This may reflect issues of financial structure and financial market development, but also overly conservative investment practices or even regulatory restrictions.

Alternative investments (hedge funds, commodities, real estate, infrastructure, emerging market assets, private equity) have gained importance as of late among traditional institutional investors such as life insurance companies and pension funds, although those investments still represent only a small proportion of their total assets under management. This evidence is broadly confirmed in surveys, market intelligence and interviews with institutional investors. However, hardly any country provides a breakdown for these asset classes in their sector data for pension funds and insurance companies. In fact, alternative investments of any kind are typically lumped together with the "other investments" item. This was identified by the WG as an important data limitation for the analysis of the risk exposures of these institutional investors.

Similarly, we also observed indications of increased international portfolio diversification, but data limitations in this front were also widespread, as a breakdown between domestic and international asset holdings were not always available.

3 Main findings

A first finding of the report is that regulatory policy changes share some common features across many countries. Therefore, at least to some extent, they can be considered “global”¹. Regulatory changes were motivated, at least partially, by the 2000-02 equity downturn, which exposed some serious weaknesses in the regulatory frameworks of traditional institutional investors with long-term liabilities and offering guaranteed returns. But key to the deterioration of DB pension funding positions were also rising longevity and the fall in interest rates after 2002, which lowered DB pension fund returns, and increased their liabilities (the so-called “perfect storm”).

Those common features among regulatory and accounting changes include:

- A shift towards fair-value accounting of pension assets and liabilities whereby assets and mark-to-market and liabilities discounted with a market-based interest rate
- A move towards greater transparency in company accounts about their pension deficits or surpluses
- And the adoption of risk-based solvency requirements for insurance companies

All these changes are believed to strongly influence the investment behaviour of institutional investors, even if the consequences of their implementation are likely to differ across institutional investors and countries.

A) Effects of changes in regulation and accounting on investment strategies

The main effect of accounting and regulatory reforms will be to provide incentives for DB pension funds to ensure that asset allocations become more systematically linked to the structure of liabilities. The use of a market-based interest rate to value liabilities will alert corporate sponsors that they may be more exposed to interest rate risk --by having assets of much shorter duration than they liabilities-- than ideal. In this regard, regulatory loopholes that in the past allowed DB pension funds to run very equity-oriented portfolios and avoid making pension contributions even in situations of severe underfunding will no longer be accommodated in the new regulatory and accounting frameworks. This will help mitigate some of the past weaknesses in DB pension funds. However, DB pensions face trade-offs in the choice of holding more fixed income securities: given the lower returns that can be expected from investing in a fixed-income oriented portfolio, some DB pension funds may be tempted to deviate from pure ALM strategies, adding to their asset allocation an increased exposure to alternative investments such as hedge funds, emerging market assets, commodities or private equity, on the grounds of uncorrelated returns and diversification reasons, but also as “yield enhancers”.

Increased transparency in company accounts can also make more visible the costs for the sponsor company of running DB pension funds, or even increase them (require more sponsor contributions) if they rely more on the lower returns of fixed income securities. For that reason, it is plausible also that the recent regulatory and accounting changes could also reinforce the ongoing shift from DB to DC pension funds, where the risk is fully transferred to households.

¹ See Box A in Institutional Investors, Global Savings and Asset Allocation, CGFS (2007). Australia (2006), Canada (2006), Denmark (2001), EU (2005), Hong Kong SAR (2005), Netherlands (2007), Singapore (2004), Sweden (2006), Switzerland (2006), UK (2005) or US (2006) were all implementing reforms in the fields of regulation and accounting of their DB pension funds or insurance companies.

B) Effects of changes on asset allocations and financial asset prices

A second finding concerns the actual portfolio shifts observed so far. Interestingly, even if anecdotal evidence of portfolio shifts was encountered in a few countries, and broadly confirmed in private sector interviews, the WG did not find robust evidence that a substantive reallocation of portfolios into bonds had taken place at a global level in the last two years, the UK being an important exception, even if the magnitude of the shift has been relatively modest (around 10%). This may be due to the fact that most of reforms are recent or forthcoming, but could also show that institutional investors' exposures are not adequately picked up by balance sheet data (for instance when they take place through derivatives).

A third key finding is that, in most countries, it was hard to disentangle the effect of regulatory and accounting changes on financial asset prices from other influences. Developments in the United Kingdom from 2004-2006 appear to show that long-term yields have declined partly as a consequence of regulatory developments. But the UK could be considered in certain ways a "special case" as (i) the size of institutional demand for long-term bonds relative to the size of the market is very large, given the huge DB pension fund sector, (ii) regulatory and accounting changes have been applied ahead of most other countries, and with a relatively tight transition period, (iii) funding positions were weak in some instances and (iv) initial asset allocations of DB pension funds were very equity-oriented.

Elsewhere, accounting and regulatory reforms do not appear to be a main cause of the current low level of long-term interest rates. Therefore, insofar as the behaviour of long-term rates may remain a puzzle, it is unlikely that the explanation will be found in the behavioural response of institutional investors to recent or prospective regulatory and accounting changes. Given the importance of assessing the equilibrium level of long-term interest rates, continuing uncertainty on this front complicates the task of policymakers.

In addition, any assessment of the effects of regulatory and accounting changes on financial markets must be tentative, because the reforms are all recent or in the process of implementation or discussion. The fact that the regulatory and accounting reforms are part of a global phenomenon that is still in its early stages raises the possibility that they could eventually have a more lasting effect on financial market developments and prices.

C) Financial stability implications

Recent regulatory and accounting reforms have moved in a direction that would seem to enhance the functioning and stability of the financial system, and could therefore be expected to contribute to a more efficient allocation of resources and to the overall stability of the economy. To the extent that they encourage better risk management by institutional investors, the spreading of investment risk among a larger investor base and improving transparency in corporate reports, they might also make financial systems more resilient to shocks.

In this regard, while the assessment of the reforms is in principle positive, there are a number of issues which raise concerns in the field of financial stability.

First, if changes in institutional investors' behaviour have an impact of financial asset prices, for instance, long term interest rates, they could complicate their interpretation, as the role of special factors would have to be taken into account alongside with that of macro fundamentals.

Additionally, corporate and household sector capital gearing might be stimulated - which might raise the vulnerability of those sectors to future adverse shocks - and distortions in the valuation of firms could be originated.

Second, even if regulatory policy changes do not impinge on financial asset prices, other aspects in the area of financial stability may be worth monitoring. "Feedback effects" are a case in point. Regulatory and accounting changes have moved to propose a "market" interest rate (long bond yields) as a discount rate for DB pension liabilities. As DB pension funds have focused on better matching their liabilities through ALM techniques, among other strategies by increasing their bond holdings, downward pressure to long yields may have been added. But since long yields are used as discount rates, their reduction automatically increases the valuation of pension liabilities, forcing pension funds to purchase more bonds, creating a sort of vicious cycle or feedback effect. As an alternative scenario, other feedback effects can appear if fund managers were reluctant to lock in the current interest rates (considered as low), and would only try to extent their asset duration as interest rates rise. This could involve flatter than usual yield curves going forward, as pension fund demand would be adding to the long- and very long-maturity segments of the yield curve as interest rates rise.

Third, additional concerns may arise from the potential increase in the exposure to alternative investments. In this regard, although the increased interest in alternative investment strategies by institutional investors was not perceived as a major problem for financial stability (these asset classes still remain of limited importance in their portfolios) concerns were expressed about the opacity of some of these vehicles, tail risks and untested markets.

4 Institutional Investors and Emerging Markets¹

The development of domestic institutional investors in emerging markets and the increased exposure of global institutional investors should be viewed as positive events for the development of local bond markets in emerging countries. They help broaden and diversify the investor base, facilitate risk-pooling and information gathering for small investors, have typically longer investment horizons than other market players in emerging markets such as hedge funds, and to the extent that they venture into the local currency segment of the bond market can contribute to alleviate prevailing currency and duration mismatches and reduce financial vulnerability. In addition to this, it is important that appropriate regulation and supervision be in place to avoid potential principal-agent problems.

These features are at least to some extent shared by domestic institutional investors and by global institutional investor. One key difference, though, is that global institutional investors tend to be huge in comparison to the size of local markets while domestic institutional investors are typically small in comparison to global markets. One direct implication of this fact is that shifts in the portfolios of global institutional investors may have an important impact on domestic asset prices while domestic institutional investors will not have any impact on global asset prices.

Some of the regulatory changes discussed in the report are more applicable to pension schemes in industrial countries, where DB pension funds have been predominant, than to emerging

¹ For a detailed review of institutional investors, policy measures to develop local markets and asset allocation in emerging markets, See Chan, Suh and Santaella (2007), background paper to CGFS (2007).

markets, where pension reforms are moving in the direction of setting up DC schemes. However, some aspects of the changes underway in industrial countries, like the move towards fair value accounting or the use of risk-based solvency frameworks for insurance companies can also bring advantages in terms of increased transparency and improved risk-management to emerging economies, benefiting the development of local markets.

In addition, there are a number of issues that policymakers may need to analyze when developing their institutional investor base. Here, I would like to highlight only those that are more closely linked to the scope of this report.

The first one is *retirement income security* in DC pension schemes. The majority of pension reforms in emerging markets are going in the direction of setting up DC schemes, where the risk is fully transferred to the household¹. This has some obvious positive effects. First, it alleviates pension commitments from public accounts, at times avoiding the potential bankruptcy of the system. In addition, as already mentioned, under DC schemes, corporate sponsors in emerging markets are unlikely to face underfunding problems like to those facing traditional DB pension funds in industrial countries. At the same time, as the household sector can be considered to hold the largest equity buffer, the process of risk transfer should increase the resilience of the financial system as a whole. However, in DC schemes the generational risk sharing typical of DB (or of pay-as-you-go schemes) disappears, and income retirement becomes more exposed to investment risk and to the volatility of financial markets. While many countries have adopted “multi-pillar” pension systems where a basic pension is guaranteed by the states to mitigate this problem, if households are not well equipped to make efficient investment decisions, they may not be able to ensure sufficient retirement income security in a context of rising longevity. This leads to the urgent need to accompany pension reforms with improved financial literacy, in order to prevent reforms from potentially backfiring. In this regard, the experience of some emerging markets, like Argentina, where the crisis led to the collapse of the private pension system and is moving back to a pay-as-you-go system, or less extreme cases like Chile where almost 25 years after reforms households are retiring on very meagre resources and the system has had to be reformed, may provide insightful lessons for other countries.

A second point that can be raised is about the different growth speeds of institutional investors and of the supply of investable securities. Although in some emerging markets the institutional investors base is not yet very developed, in others, institutional investors are becoming so large as compared to the size of domestic markets that *asset price misalignments* can occur, especially when there are tight limits to international diversification. Lifting those limits can (most times) become a politically sensitive issue², but can ultimately be positive for market development as it will facilitate more efficient pricing and better liquidity conditions in the domestic market. In this regard, it is also important that the ability of the domestic financial sector and domestic corporates to supply long-term financial assets, especially long-term bonds, should also be enhanced. To do this, the building-up of a risk-free interest rate curve is essential.

A third point is about the impact on the domestic monetary policy transmission mechanisms of an increased involvement of global institutional investors in emerging markets. When global institutional investors enter local capital markets, the *transmission mechanism* of domestic

¹ One of the first countries to reform its pension system in this direction was Chile (1981). Colombia followed in 1993, Argentina and México in 1997, and Costa Rica in 2001.

² Even so, many emerging markets have moved to lift at least partially their restrictions to investing in foreign assets over time.

monetary policies may be altered, as local long-term interest rates become more closely determined by global liquidity conditions and by global risk preferences than by domestic expectations about future interest rates. This makes emerging markets more similar to (some) industrial countries but is something policymakers should take into account both when assessing the right stance for monetary policy, as well as when interpreting those interest rates as indicators of monetary policy.

Finally, one legitimate concern for emerging market authorities is whether opening their local markets to international investors may have the *potential to destabilize* their markets should expectations change or asset reallocations take place. In this regard, even if institutional investors are considered the stable investment community and probably their asset allocations have a more strategic, long term horizon, to the extent that the low levels of interest rates and adoption of strategies that need to supplement returns by increasing the exposure to riskier assets, it could be argued that this could potentially change, as returns in industrial countries go back to more normal levels. While it is true that a significant improvement in the macro fundamentals has played an important role in the increased inflows into emerging markets in recent years, and so has their secular process of financial integration, some component of excessive risk taking that could be reverted cannot be ruled out.

5 Policy conclusions

The development of domestic institutional investors in emerging markets and the increased exposure of global institutional investors should be viewed as positive events for the development of local bond markets in emerging countries for the reasons discussed above. However, there are a number of issues policymakers may need to look into when developing their domestic bond markets and their institutional investor base. One of them is that improving household financial literacy may in the long run be an essential component of a successful pension reform, especially when those reforms involve setting up DC schemes, as has often been the case in emerging markets. As institutional investors develop, enhancing the conditions to develop a supply of domestic long term bonds, and lifting quantitative limits to international investments will support domestic financial market development. Opening emerging bond markets to global investors may involve changes in the transition mechanism of monetary policy. This is something policymakers should take into account both when assessing the right stance for monetary policy, as well as when interpreting those interest rates as indicators of monetary policy. Persevering in reducing domestic vulnerabilities and building sound macro and institutional fundamentals should be key to reap off all the benefits of opening financial markets to foreign investors, and avoid some of its potential drawbacks. Finally, some aspects of the regulatory and accounting changes underway in industrial countries, like the move towards fair-value accounting or the use of risk-based solvency frameworks for insurance companies, even if they obviously need to be adapted to country circumstances, can also bring advantages to the development of emerging markets, especially in terms of increased transparency and improved risk management for institutional investors.

Thank you very much for your attention.

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