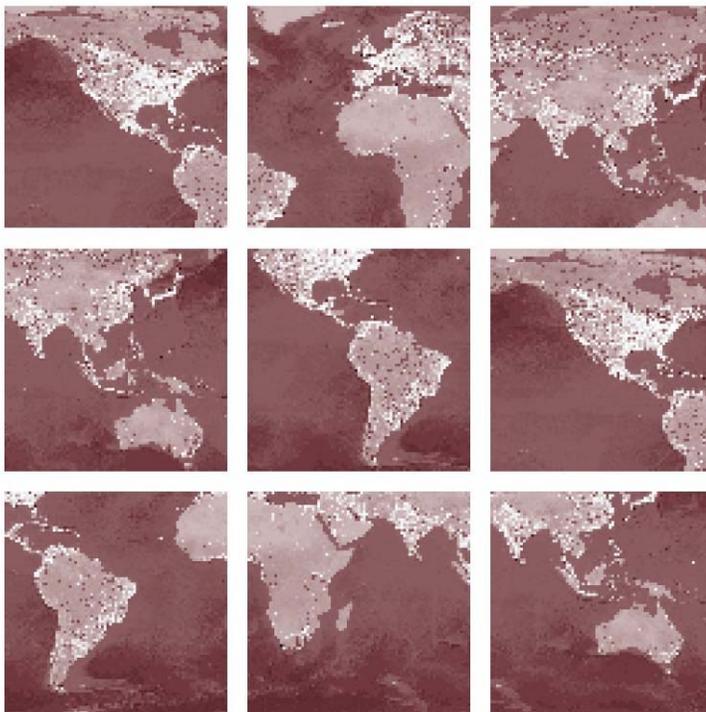


CHAPTER SIXTEEN

---

**BONDING THE BRICS: A BIG CHANCE FOR INDIA'S DEBT CAPITAL MARKET**

November 2007





## BONDING THE BRICs: A BIG CHANCE FOR INDIA'S DEBT CAPITAL MARKET

### Introduction: A Well-Functioning Debt Capital Market Is in India's Interest

Capital markets development remains a critical aspect of our BRICs story. As these economies grow and develop, their domestic capital markets should expand and mature, fostering a more efficient allocation of funds and a wider distribution of risks, and facilitating the transfer of resources and the 'smoothing' of consumption over the life cycle and across generations.

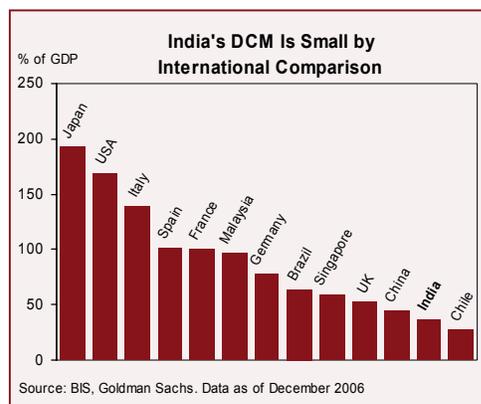
In India, strong growth since the start of this decade has transformed the macroeconomic landscape. We now estimate that the economy can potentially sustain annual GDP growth of 8% or more over the next ten years. But we also believe that continued progress on structural reforms is necessary to strengthen the foundations of and the prospects for India's economic expansion.

Amongst the most important reforms is the development and deepening of the non-public debt capital market (DCM), where growth has been lackluster in contrast to a soaring equity market. Consider that the stock of listed non-public-sector debt in India is currently estimated at about \$21 billion, or about 2% of GDP—just a fraction of the public-sector debt outstanding (around 35% of GDP), or the equity market capitalisation (now close to 100% of GDP).

Of course, the absolute or relative size of the bond market itself is not the critical issue. After all, even now, the US remains the only developed economy where private-sector corporate and financial interest-bearing liabilities are a meaningful share of GDP (see chart on page 209). Nonetheless, the past decade has seen domestic debt markets mature considerably in traditionally bank-centric economies in Europe, Asia and Latin America.

The economic advantages of having a viable private DCM can be grouped into three broad categories. First, it gives providers of capital access to a broader set of diversification opportunities. In India today, household wealth is parked in bank deposits, real estate and gold, with very limited stock ownership (see chart on page 208). More active insurance and pension markets, for example, would allow families to spread investment risks more broadly. In turn, these institutional investors would contribute to enhancing credit price disclosure as they allocate resources into interest-bearing securities.

Secondly, access to a functioning DCM, and the multiple financing options that come with it, endows borrowers with greater efficiency in managing the cost of capital. Historical and cross-sectional experience teaches that problems in the banking sector can interrupt the flow of funds from savers to investors for a dangerously long period of time. Indeed, one of the 'lessons' from the 1997 Asian financial crisis has been the importance of having non-bank funding channels open. In the wake of



## Bonding the BRICs: A Big Chance for India's Debt Capital Market

this crisis, a number of countries in the region, including Korea, Malaysia, Singapore and Hong Kong, have made progress in building their own corporate debt markets.

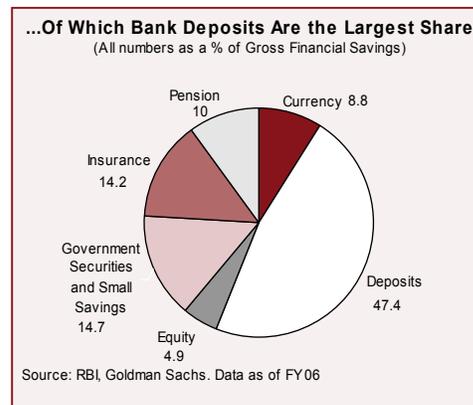
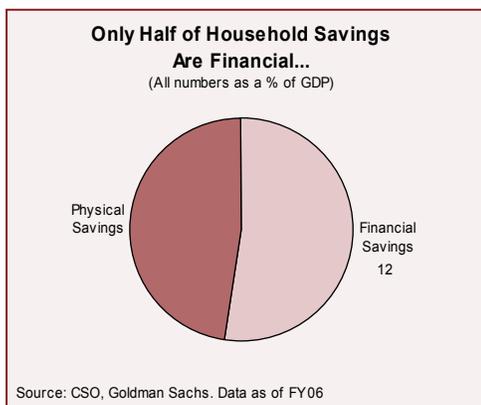
On-the-ground estimates indicate that the total stock of non-equity claims on India's corporate sector could total more than \$100bn today, somewhere in the region of 10% of GDP. With listed securities worth just \$21bn, this means that roughly 80% of the market is in the form of private placements. These liabilities are negotiated and priced on the principles of 'relationship lending', are issued with virtually no public disclosure, and are typically held to maturity by banks.

This brings us to a third set of reasons why developing a debt capital market is in India's interest. The current system of financing has already, and will increasingly, become less adequate for an economy as large and as ambitious as India's. Spreading credit risk from banks' balance sheets more broadly through the financial system would lower the risks to financial stability. And a deeper, more responsive interest rate market would allow the central bank greater degrees of freedom in the conduct of monetary policy. This will be particularly important as India gradually opens up its capital markets to the rest of the world.

### Wide-Ranging Capital Market Reforms Could Yield a Large Payoff

Debt capital market development is a widely-discussed topic in Indian financial and political circles today, with many recent government-commissioned reports leading to widespread recognition of what needs to be done (though of course there are differences of opinion on the priority and sequencing). The DCM reforms under discussion have three main prongs: encouraging supply, facilitating greater demand and improving the functioning of the marketplace.

While all three areas are important, and should be approached simultaneously, we see the last as the most critical constraint. We define the 'market environment' broadly to encompass the quality of the legal, regulatory and supervisory structure; the rights and protections accorded to creditors and bondholders; the trading infrastructure (trading platforms, securities clearing and settlement systems); human capital; and links to other global financial markets. Reforms to supply and demand are vital, but without solid improvement in the market infrastructure, India could find itself with a larger stock of debt but little progress on liquidity, price discovery and risk-sharing. Further liberalisation in other sectors of the financial system, notably the banks, will also be essential.

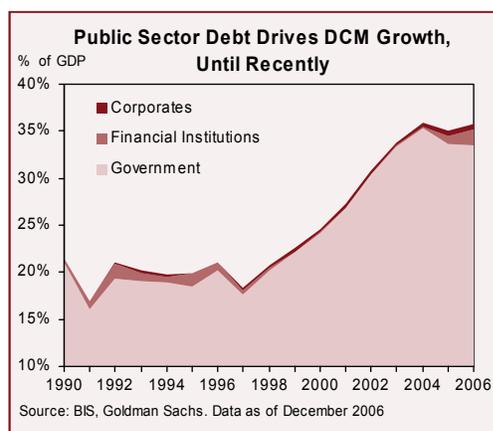
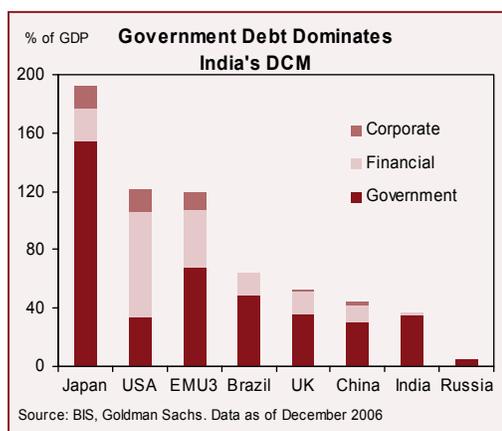


Against the backdrop of a favourable domestic and external economic environment, the time is now ripe for broad reforms. One important catalyst for the maturation of the corporate debt market could be India's enormous need for infrastructure, with the government estimating investment needs of at least \$475bn over the next five years to reduce bottlenecks and sustain growth. Debt financing is critically important to meet this target. The demand side of the DCM would benefit as well: the nature of infrastructure bonds (long duration, implicit inflation link) makes them particularly appealing to institutional investors such as insurers and pension schemes.

India's DCM development efforts should, in our view, focus on two sets of reforms. The first set we term 'low-hanging fruit'—technical reforms that are not politically sensitive and do not adversely affect influential vested interests. These technical steps can be undertaken fairly quickly and easily. Indian authorities have already made some progress in this area, with several additional announcements expected in coming months.

The second set involves more challenging issues that will rub up against political constraints. Progress in these areas will be slow, with the full slate unlikely to be completed for nearly a decade. Political commitment will be essential—although admittedly difficult in the current climate—and it would help to have one regulatory agency step forward as the debt market's champion, working in consultation with industry participants.

As mentioned earlier, size is not the ultimate goal. Still, if India can deepen and strengthen its debt capital market as we describe, the results could be significant. Drawing on the cross-sectional experience of G7 countries since the 1970s, we estimate that the overall capitalisation of the Indian debt market (including public-sector debt) could grow nearly four-fold over the next decade. This would bring it from roughly \$400bn, or around 45% of GDP, in 2006, to \$1.5 trillion, or about 55% of GDP, by 2016. In constant Dollar terms, India's DCM in 2016 could be roughly two-thirds the size of Germany's debt market today, or 25% larger than the UK's. The strongest growth would occur in the non-government segment (financial institutions and corporates), which we estimate could increase almost six-fold, from \$100bn to \$575bn, or from roughly 10% of GDP today to 22% in 2016.



### India's Economy Is Ideally Placed to Tackle Financial Sector Reforms

After nearly a decade of structural reforms, India has done the hard running and is ideally placed to tackle financial sector reforms from a position of strength. In the context of a favourable external environment, it should now strengthen its debt market to underpin its future economic growth.

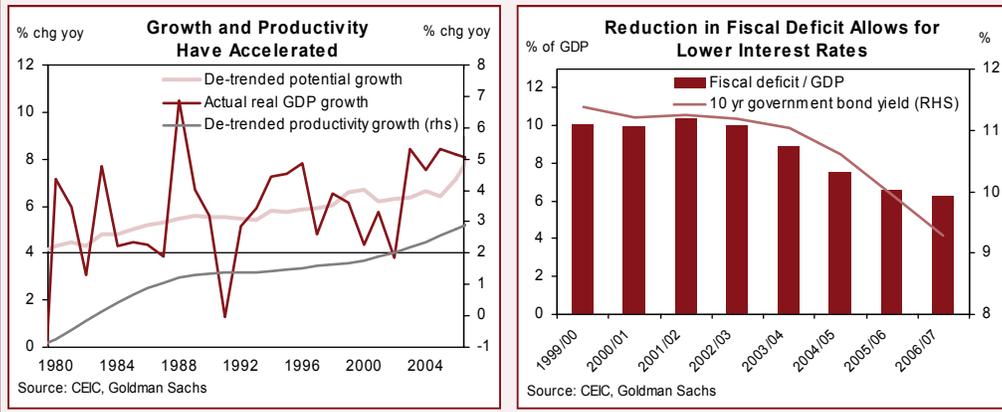
India's economy has accelerated to a higher growth path since 2003, with annual GDP growth averaging nearly 9%. We estimate that India can potentially sustain real GDP growth rates above 8% over the next decade, thanks to favourable demographics, increased savings and investment, higher productivity growth due to catch-up, and rapid urbanization. Even on our more conservative long-term BRICs projections, India is on track to become roughly the size of the US economy by 2050 (though in per-capita terms it will lag substantially, being closer to where Korea is today).

India's macroeconomic environment has strengthened considerably over the last decade or more. Inflation has remained under control, despite the buoyancy in commodity prices, and has fallen from an average of about 11% in the early 1990s to about 5% over the last four years.

Improvements in public finances—both at the central government level and among the States—have played a key role. The gross fiscal deficit, which was once a grave danger to the health of the economy, has declined from a high of 10% of GDP in 2000-01 to less than 6.5% currently. This has improved the macro environment by reducing crowding out and lowering interest rates. Indeed, nominal short-term rates have declined from an average of 12% to 7%. Public debt has correspondingly not increased as a share of GDP, and this has boosted confidence further.

The external sector has strengthened due to the gradual liberalisation of tariffs and capital flows. Exports have grown by, on average, over 20% annually since 2003 as India has rapidly integrated with the global economy. Net capital inflows have jumped from under 2% of GDP in 1999 to more than 4% in 2006-07, driven by portfolio flows, FDI, external commercial borrowings and rising NRI deposits. As a result, foreign currency reserves have increased to upwards of \$260bn—over 150% of external debt.

The gains in the macro environment have reduced India's vulnerability to shocks. Indeed, the more difficult part of macro stability has now been achieved. The declining fiscal deficit, high level of reserves and low external debt mean that India is now ideally placed to tackle financial sector reforms from a position of strength.



## The Current State of Play in India's Debt Capital Market

How big is India's debt market capitalisation today? The difficulty in answering even this simple question underscores the opacity of the financial system and the need for regulatory reforms. While data for public-sector securities are relatively easy to collate, the same cannot be said for non-public interest-bearing claims. The BIS puts the total outstanding stock at \$21bn, or some 2% of GDP, while on-the-ground estimates are about five times higher. The gap between the two figures reflects the corporate sector's reliance on private placements, rather than listed issues, which is due to the unsupportive regulatory climate that we discuss below.

Whatever the market's actual size today, participants describe it as caught in something of a 'chicken-and-egg' dilemma that limits its growth potential. Some attribute the market's immaturity to limited demand, while others blame limited supply. We see obstacles and opportunities in both, but view improvements in the market structure as the most critical step.

- Latent **demand** for debt securities is growing as India's insurance, mutual funds and pensions sectors experience rapid asset growth. But the authorities still impose heavy restrictions on institutional asset allocation—restrictions that are being lifted only gradually.
- The **supply** of debt, particularly of listed debt, has not kept pace with growing demand. Sitting on high savings from individuals and corporates, and flush with liquidity from overseas, banks have little incentive to explore public debt market funding avenues, and are in turn generous providers of loans.
- Beyond the questions of supply and demand, a fundamental hurdle (perhaps *the* fundamental hurdle) is the **structure of the market** itself. As we discuss below, there is no real public 'marketplace' for corporate debt.

Below we provide a brief overview of the state of play in India's debt market, starting with the supply side and then considering the key investors and the market infrastructure.

### Supply is limited ...

India's debt market is small by international comparison and is dominated by public-sector liabilities. Considering India's long string of yawning fiscal deficits, as well as legislation forcing banks and institutional investors to take down a large chunk of public issuance, it should come as no surprise that public-sector bonds are the lion's share of India's debt market.

- **Central government securities** are worth about \$300bn, or roughly 30% of GDP. Almost all public-sector debt outstanding is made up of Rupee-denominated fixed-rate bullet bonds, with maturities out to 30-years, with the bulk (35%) between 5- and 10-yrs. The Reserve Bank of India (RBI) acts both as debt manager and as primary regulator of this segment of the market. The RBI releases an auction schedule semi-annually, specifying auction dates, amounts and tenors. Auctions are conducted on a multiple-price basis, although the RBI reserves the right to conduct a uniform price auction.
- Securities issued by **public-sector undertakings** (PSUs) represent the second-largest segment. Since PSU bonds can be used to meet banks' Statutory Liquidity Requirements

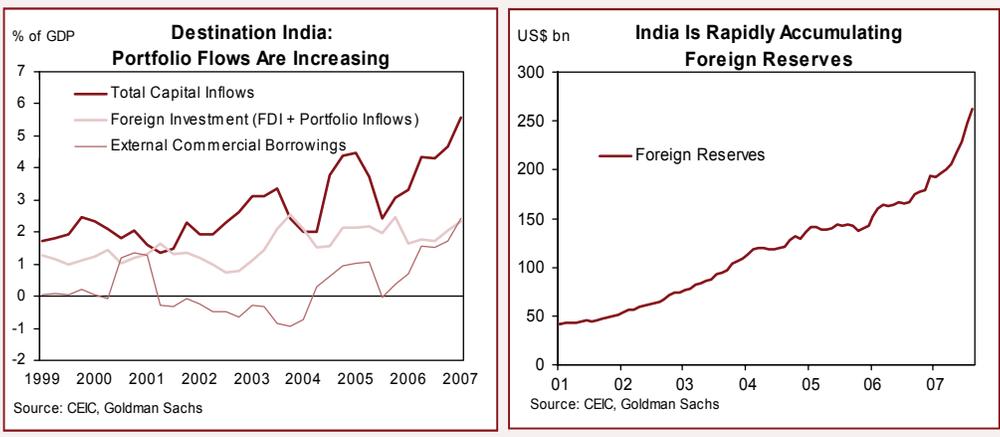
### Escaping the 'Impossible Trinity'

A deeper bond market can help to increase India's monetary policy effectiveness. The Reserve Bank of India (RBI) currently conducts monetary policy through the Liquidity Adjustment Facility, where it sets policy rates—the repo and reverse repo rates—thereby providing a corridor for overnight money market rates. Direct instruments such as the Cash Reserve Ratio are also extensively used to manage liquidity in the banking system. For FX sterilisation operations, the RBI conducts open market operations, issuing government securities under the Market Stabilisation Scheme. The RBI has tended to manage the exchange rate in real effective terms, with the latter fluctuating in a narrow band since 1993 until April 2007. Since April, the RBI has allowed significant appreciation, in part to deal with inflationary pressures.

With capital inflows being gradually liberalised and increasing in magnitude, the RBI cannot manage the exchange rate and retain an independent monetary policy stance simultaneously—a problem known in economics literature as the 'impossible trinity'. At the extreme, if capital is allowed to flow in and out freely, and the exchange rate is fixed, a positive (negative) interest rate differential between India and its main trading partners will lead to large capital inflows (outflows), impairing the policy conduct. This explains the frequent recourse to direct measures to manage liquidity (such as reserve requirements and sterilisation), which ultimately lead to an increase in the central bank's balance sheet. Over time, this can prove unsustainable, as many countries have learned through painful financial crises.

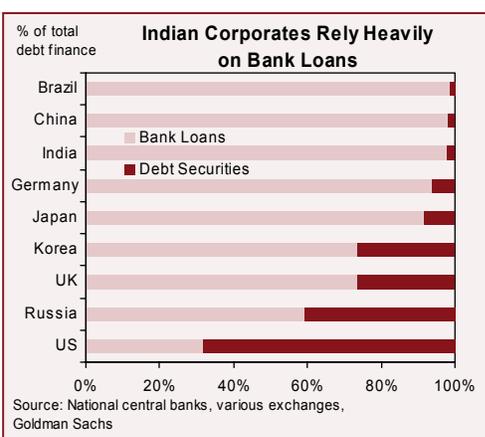
India's goal remains fuller capital account liberalisation, especially as its growing economy needs to supplement domestic savings with capital inflows. However, liberalisation is complicated by the fact that Indian domestic interest rates are notably higher than international rates, which may result in faster currency appreciation that would undercut competitiveness.

The RBI has professed discomfort with the recent pace of Rupee appreciation, as it hurts much-needed jobs in the employment-intensive export sector. Financial liberalisation, including growth of the corporate bond market, will increase efficiency and reduce interest rates. It can also ultimately result in a convergence of domestic and international rates, which would ease the path toward eventual capital account liberalisation.



(SLR)—the quota of assets that are mandated to be allocated to high credit quality securities—their secondary market liquidity is on par with that of government issues. PSU issuance increasingly takes place through private placements, rather than public market offers, and issues are typically held to maturity.

- **Financial institutions** issuance is small, with the outstanding stock amounting to just \$15.5bn, or 5% of the total debt market. Deposits represent the main avenue of funding for Indian banks. What financial debt is issued is typically in the form of private placements, which are sold mostly to other banks. For this reason, statistics on outstanding amounts are not very informative.



- Finally, listed **corporate bond** issuance is tiny. The BIS actually considers the data for corporate bonds too unreliable to report, and puts corporate commercial paper outstanding at just \$5bn, or less than 2% of the total DCM. Indian regulators do not have a firm estimate of corporate debt either, but data compiled by the RBI and the Securities and Exchange Board of India (SEBI) indicate that private placements have accounted for 95% of all debt issues by the Indian corporate sector since 1995.

### ... and demand is constrained ...

By mandating investment restrictions, Indian authorities have severely constrained the institutional investors that should be the natural sources of **demand** for private-sector debt. By law, public-sector securities must account for at least 25% of banks' total deposits; 50% of life insurers' assets; 30% of non-life insurers' assets; and 40% of assets held by the major private provident fund. Other mandated investments earmark a further proportion of assets (as much as 40%) for quasi-government securities or as credit to priority sectors (primarily agriculture and small-scale businesses).

In practice, the skew is even more dramatic. Public-sector securities account for a staggering three-quarters of investment by private banks and more than 85% by public banks. Banks hold roughly half of all outstanding government bonds, and the Life Insurance Corporation of India another 20%. Purchases of public-sector bonds by the non-financial private sector have picked up only recently.

India's principal institutional investors include:

- **Commercial banks.** Commercial banks together hold roughly half of all outstanding government securities. These dominate their balance sheets: 86% of public banks' investments (73% at private banks) are held in public-sector debt, primarily government securities. Several regulations steer banks into public-sector debt. Chief among these is the Statutory Liquidity Requirement (SLR), which requires banks to hold one-quarter of their assets in public sector bonds. Others include non-interest bearing reserve requirements (the CRR, which currently stands at 7.5%); mandated investments to 'priority sectors'; a cap on

**Restrictions on Indian Investors**

Required investments (% of total assets)	Government securities	Infrastructure and social sectors	Other approved	Cash reserve ratio (CRR)	Priority sector (% of total credit)
Banks	25*	--	--	7.5	40
Life insurance	25	15	25	--	--
Non-life insurance	20	15**	10	--	--
Employees' Provident Scheme	40	--	--	--	--

\* SLR requirement, which includes other public-sector securities      \*\* Includes 5% for housing and 10% for infrastructure and social sector  
 Source: RBI, IRDA, PFRDA, Goldman Sachs

holdings of unlisted securities (most corporate debt is unlisted); the requirement that banks can only invest in rated securities; and the limited supply of investment alternatives.

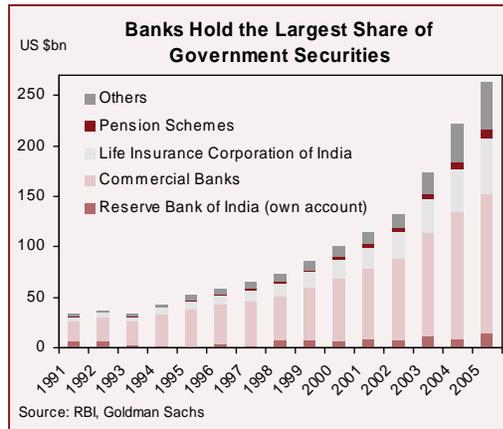
More generally, the high weighting of public-sector securities reflects the banks' conservative approach to investing. This approach has worked well in a relatively uncompetitive market, one in which public banks still hold around three-quarters (!) of all deposits. As the banking sector prepares for the full-scale entry of foreign players in 2009, however, it may become a hindrance. Accordingly, liberalisation of the banking sector, as well as potential privatisations, could generate pressure to relax the regulatory restrictions, and could also encourage banks to shift toward corporate debt.

- **The insurance sector.** Since the sector was liberalised in 1999, insurance assets have grown rapidly, with inflows into private life insurers up 130% in 2006, and private funds have gained market-share from state-owned firms. Current assets are estimated to be \$120bn, with significant growth potential given that insurance penetration is quite low. Under regulations dating back to 1938, insurance funds are subject to strict mandatory asset allocation rules: life insurers must invest at least half of their assets in public-sector securities and a further 15% in infrastructure and social sectors. Non-life companies have somewhat greater flexibility, with requirements of 30% and 15% respectively. The state-owned Life Insurance Company (LIC) and General Insurance Company (the sole domestic re-insurer), which continue to dominate the market, face further restrictions: no more than 15% of LIC assets (25% for GIC) can be held in private-sector debt.

**Insurance Penetration\* Is Low**

	Total	Life	Non-Life
India	3.1	2.5	0.6
Brazil	3.0	1.3	1.7
China	2.7	1.8	0.9
Russia	2.3	0.1	2.2
US	9.2	4.1	5.0
UK	12.5	8.9	3.6
Japan	10.5	8.3	2.2
World	7.5	4.3	3.2

\*Defined as gross premium collected relative to GDP  
 Source: IRDA, Goldman Sachs. 2005 data



- **Pension schemes and provident funds.** Indian pension reform is a highly politicised issue, and one that has been written on and argued about extensively. The politics of pension reform are beyond the scope of this paper, but we identify two important issues from the perspective of debt market development. The first is that less than 15% of the formal workforce (mostly public-sector employees) is enrolled in formal pension schemes. The second is that the vast majority of pension assets are invested in public-sector securities (with, for instance, the dominant Employees' Provident Fund holding 90% of its estimated \$22bn in assets in government debt), and strict requirements on incremental investments leave only a small share that can be allocated toward corporate debt. Liberalisation in this area could create a significant source of demand for credit paper. Estimates suggest that pension reforms currently pending in Parliament could increase the market size to over \$100bn by 2025.
- **Mutual funds** are enjoying strong inflows, thanks especially to the equity market's exceptional performance (up 190% since the start of 2005) and their tax-advantaged status. Assets under management have grown at more than 40% annually in recent years, reaching \$95bn as of June 2007. Mutual funds enjoy more investment flexibility than do other institutional investors; for instance they can invest up to 10% of assets in foreign securities.
- **Foreign institutional investors**, which are subject to an aggregate corporate debt ownership limit of \$1.5bn (and a further \$2.6bn for public-sector securities). Although these limits are gradually rising, there seems to be little appetite for allowing foreign investors to become major players. Yet foreign investors do have the potential to play an outsized role in the market's long-term evolution by insisting upon international standards of transparency, disclosure and corporate governance.

### **... while weak market infrastructure limits liquidity and price discovery**

Complicating the picture of limited supply and demand outlined above is the infrastructure of the debt market itself. Ideally, supply and demand should meet in a well-functioning, liquid market that allows price discovery and the spreading of risk. This is not the case in India, where there are transactions but no real corporate debt 'marketplace'. We see progress in developing this marketplace as critical to stimulating the growth and deepening of India's debt capital market. This is not to say that efforts to boost supply and demand are not vital—they are. But in order to reap the full benefits of financial liberalisation, India needs a well-functioning market for credit risk—not just a larger stock of privately-placed corporate debt that sits on banks' balance sheets.

In the **primary market**, issuing listed corporate debt can be a cumbersome process. India does not permit corporates to file 'shelf registrations', a feature found in several jurisdictions that allow firms to act flexibly and rapidly to capitalise on favourable market conditions. Instead, India requires companies to provide full disclosure—at the level of detail generally required for an initial public offering of shares—for every capital markets transaction. This is a lengthy and expensive process that acts as a strong deterrent to listing. Primary issuance is also subject to stamp duty at a rate that is very high by international comparison. Moreover, stamp duty varies across the individual States, which complicates administration.

Therefore it is not surprising that so much of India's corporate debt is issued through private placements, in which disclosure standards are determined by private negotiations between issuer and buyer. This route clearly has its advantages for issuers, who can avoid thorough and time-consuming disclosure rules and enjoy a more straight-forward tax treatment. For

institutional buyers who have ongoing relationships with issuers—and who are thus able to do due diligence themselves—the opacity of private placements is presumably not a major obstacle. But as long as corporates continue to rely overwhelmingly on private placements, effective price discovery will be impossible.

**Secondary trading** is limited—SEBI estimates that turnover was just \$6bn in 2006—because so much debt is held to maturity. What trading does occur takes place on three platforms: the inter-bank market, on stock exchanges (in an anonymous order book system) and OTC (either bilaterally or through a broker). Government-debt trading takes place both on electronic platform and OTC, with the majority of liquid securities being exchanged on the platform. Both the NSE and the BSE have a Wholesale Debt Segment, but little activity goes through these. Primary dealers designated by the RBI, banks, mutual funds and insurance companies all have direct access to the wholesale market. Short sales are restricted to banks and primary dealers, and are allowed only on an intra-day basis, up to a maximum of five days. There is also active trading in Indian non-deliverable offshore swaps, which are indexed to the NSE Interbank overnight rate.

In the corporate debt segment, the reliance on non-standardised and small-scale private placements takes its toll on liquidity and pricing—as does investors' tendency to hold bonds to maturity. The secondary market in corporate debt is almost entirely dominated by highly-rated securities (AA plus and above). Although clearing and settlement systems are much improved since the early 1990s, the OTC market still lacks an automated order matching system and centralised settlement, as well as standardised market practices in trading lots, coupon conventions and interest day count conventions.

The tax treatment is a further obstacle to smooth secondary trading. Under the 'tax-deducted-at-source' (TDS) system, tax on interest payments is collected on an accrual basis, meaning that each transaction must involve a physical cash exchange. The TDS system is not ideal for an OTC market and encourages participants to avoid it via non-public transactions. Further complicating the market, tax rates also differ among securities; public-sector securities are exempt and TDS on interest income is not uniformly applicable to all investors. While insurance companies and mutual funds are exempt from the provisions of TDS on interest paid on corporate bonds, other market players are not.

At a structural level, India's ponderous legal system dulls the appeal of credit securities. India ranks 177 of 180 countries in the World Bank's assessment of the ease of contract enforcement, with the latter typically running for nearly four years and costing 40% of the claim. Bankruptcy proceedings regularly last ten years or more, yielding an average recovery rate of just 12 cents on the Dollar. Improving the transparency, timeliness and effectiveness of bankruptcy proceedings will be especially important if India is to move ahead with securitisation, which demands greater certainty and clarity about ownership rights.

## **The Reform Agenda: First, Pick the 'Low-Hanging Fruit'**

Improving the market infrastructure is in our view the most critical part of the reform agenda, one that will allow India to reap the full benefits of other reforms. That said, reforms to the supply and demand sides are also needed, and success is more likely if India can pursue these initiatives in parallel. Recent government-commissioned and private-sector reports have flagged numerous needs, many of which are now under review.

We distinguish between two broad sets of reforms. The first are the relatively straightforward and technical reforms that can be termed 'low-hanging fruit'. These are the responsibility of regulators, including the RBI and SEBI, and can generally be accomplished through administrative measures rather than through legislation. India is poised to make progress on several of these issues in coming months; success here would provide welcome evidence of the authorities' commitment to the growth of this market.

The second set of reforms, which generally require parliamentary action, have become politicised and as a result are likely to be achieved only through negotiation and compromise. The fragility of the current coalition government and the lack of a clear reform champion among the regulators mean that progress in these areas is likely to be slow and difficult.

In our eyes, the most important steps towards picking the **low-hanging fruit** are:

- **Improving information dissemination.** SEBI has recently required all debt trades, including private placements, to be reported on one of three new reporting platforms. A centralised database of all corporate bonds issued and outstanding would boost the information flow.
- **Streamlining disclosure requirements,** particularly for primary issues. SEBI is expected to release new disclosure guidelines soon.
- **Reducing the fragmentation** of the market by raising the number of buyers allowed for each private placement, which currently stands at 49. SEBI is also expected to issue new regulations on this soon. Although this on its own will do little to steer debt issuance into listed transactions, it should improve secondary liquidity.
- **Developing trading platforms and settlement and clearing systems.** There is ongoing debate at the policy level as to the merits of OTC compared with exchange trading. For now, SEBI is moving ahead with OTC guidelines and will consider exchange-traded settlement systems in the future. Whether OTC or exchange-traded (or both), the market requires better real-time settlement for inter-bank transactions and a consolidation of the various payment systems that currently operate.
- **Encouraging the emergence of market-makers.** A critical step to facilitate secondary trading is to allow repo transactions for non-government securities. The RBI is currently considering this, and has indicated that it would like to see the establishment of better clearance and settlement systems, as well as higher transaction volumes, before granting approval.

- **Relaxing Statutory Lending Requirements** for banks, which distort the price of credit. Since the start of the year, the RBI has had full authority to reduce the SLR level through an administrative process, without securing legislative approval; nothing has been done as yet.
- **Loosening or lifting investment restrictions** for banks, pension schemes and insurance firms, and raising (or better yet eliminating) the cap on foreign institutional investors' ownership of corporate bonds. At the moment, the RBI allows banks to invest only in rated securities, and further limits investments in unlisted securities to just 10% of total non-SLR investments.
- **Developing the framework for an asset-backed securities market.** SEBI is expected to issue an authorising 'notification' within a year. But the weakness of the bankruptcy system will be an ongoing hindrance, and we do not expect substantial reforms in this field in the medium term.

### **The Reform Agenda: Implementing the Politicised Reforms Requires a Long-Term Commitment**

Beyond the 'low-hanging fruit', the other necessary reforms are more complicated and controversial, requiring action from Parliament, where ideological opposition makes it hard to envision significant progress before general elections that are due by mid-2009. Thus we would hope to see near-term progress on the 'low-hanging fruit', which could help to generate momentum for the harder reforms.

Below is our 'wish list' of **politicised reforms**, ranked roughly from least difficult and most likely in the near term, to most complex and likely only in the longer term:

- **Tax reforms.** We see two important areas where the central government should either take action directly or urge the States to undertake reforms.

First, stamp duty should at a minimum be coordinated and harmonised across the States, to reduce complexity in collection. Although stamp duty is formally a State government responsibility, the central government supports harmonisation and has reportedly secured agreements from several local authorities, with announcements expected in the near future. Ideally, stamp duty should be eliminated altogether, which would bring India in line with international standards. States gain only limited revenues from this tax, so the fiscal impact should be small. There is widespread agreement among market participants that the elimination of stamp duty would not only harmonise the tax structure, but would also be an important incentive needed to jumpstart the debt market. It would also eliminate the tax discrimination against corporate debt vis-à-vis public-sector bonds, on which no stamp duty is levied.

Second, reform of the Tax Deducted at Source (TDS) system (which is a responsibility of the central government) would be an important step towards facilitating secondary trading, as it would reduce incentives to rely on non-public transactions. Progress on this issue could come as early as next year, but might be postponed until about 2010.

- **Listing and disclosure regulations.** One key step would be to allow corporations to issue shelf registrations, which enable firms to act swiftly and capitalise on favourable market conditions, as discussed above. While shelf registrations may not be appropriate for transactions involving retail investors, they *are* appropriate in the debt market, where issuers are repeat players and where institutional investors have the experience and sophistication to evaluate them. On the surface, allowing shelf registration appears to be a straightforward step that should be on the 'low-hanging fruit' list. But it requires an amendment to India's Companies Act, and national political dynamics mean that this is not likely to be on the parliamentary agenda before the next elections.
- **Insurance sector liberalisation.** As we noted above, there are strict limits on investments for both life and non-life insurers. Although this is not currently on the legislative agenda, we would like to see Parliament relax these limits. The government is currently seeking to raise the current 26% foreign ownership limit in the insurance sector to 49%, but this too has triggered ideological sensitivities. Passage before 2010 seems difficult.
- **Foreign participation.** International institutions such as the Asian Development Bank and the World Bank have been authorised to issue Rupee-denominated debt to fund local infrastructure products (and the ADB has already done so). Extending access to the domestic market for both foreign issuers and foreign institutional investors could have helpful consequences for the market as a whole. It would help to reinforce international standards of disclosure and transparency, and could stimulate demand for a range of debt securities. Although borrowing costs are higher than in the developed world, foreign firms operating in India might wish to finance through the local debt market in order to hedge their currency risk.

The RBI could also allow non-residents to invest in local debt markets, but we see this as unlikely in the near term because it would increase the upward pressure on the Rupee—something the RBI has been keen to contain. Simultaneous liberalisation of capital outflows would offset this problem, but this is unlikely in the near term—and we stress that it is not a precondition for debt market development. By contrast, a developed DCM would allow foreign firms with on-shore revenues to tap the Rupee market, mopping up liquidity in the process.

- **Bankruptcy law reform.** A timely, efficient and effective bankruptcy regime is a key underpinning to the private debt market, and is especially necessary if India is to develop a securitised market. Helpful steps could include updating the bankruptcy regulations, establishing a dedicated bankruptcy court, streamlining the procedures and providing specialised training for judges. Although reforms have been under discussion for several years, political opposition may block progress before 2010-2012.
- **Pension system liberalisation.** As we noted above, this is a complex and politically charged topic. Liberalisation of the current restrictions on investments could provide a potentially sizable source of demand. Unfortunately, pension reform appears to be off the political agenda until after the next election; we see 2012 as a more realistic timeframe. Progress is also hampered by the fact that the pensions regulatory body (PFRDA), which was established in 2003, still operates without a formal legislative foundation and thus lacks the clout to take significant steps.

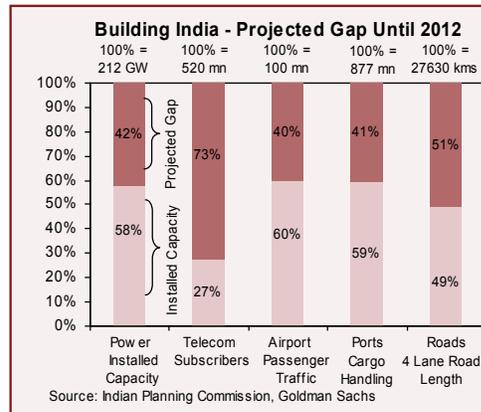
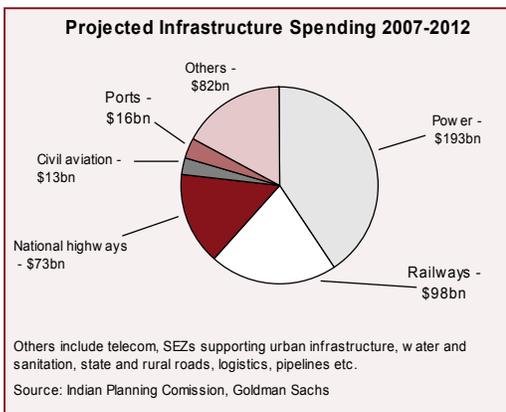
■ **Banking sector reforms.** This is a long-term and complex effort that will involve divesting government ownership of public-sector banks, allowing investor voting rights in proportion to ownership, encouraging consolidation and fully opening up to foreign banks. So far, at least, the outlook here is not particularly promising. Parliament is likely to block any sale that would bring the government's ownership and voting rights below 51%, but any sell-down short of that would leave the banks under (generally risk-averse) state management. And while entry for foreign banks is expected to proceed as planned in 2009, there is considerable uncertainty as to the effectiveness of this opening and its impact on domestic banks. Full and effective reform may take a decade.

### A Robust Corporate Debt Market Could Help 'Build' India

Infrastructure—recognised by business, government and investors alike as a critical constraint on India's economic growth—could be an important catalyst for the development of the debt market. The benefits of modernising and expanding India's inadequate infrastructure could be sizeable; the World Bank estimates that a 1% permanent increase in the infrastructure stock is generally associated with a 1% increase in the level of GDP. Striking a cautionary note, the World Bank also estimates that infrastructure investment needs to rise by three to four percentage points of GDP over the medium term if India is to sustain current growth rates.

The Indian government itself estimates that the country needs to invest \$475bn in infrastructure over the next five years. The Ministry of Finance anticipates that 70% of this will come from the government and public sector units (PSUs), including public financial institutions, while multilateral agencies are expected to fund a further 10%. The government expects the private sector to raise about 20% of the total, or \$95bn, primarily through a public-private partnership (PPP) model.

This is where the corporate debt market comes into play, for infrastructure could be both the catalyst for growth of the DCM and one of its largest beneficiaries. The debt market makes a natural home for infrastructure financing, by matching long-term projects with long-term investors, drawing on institutional investors' pricing expertise and improving transparency around projects and pricing. Moreover, infrastructure debt should find natural buyers in the pensions and insurance funds that are seeking long duration and implicit inflation links.



In an effort to spur infrastructure development, the authorities have already taken several steps that should boost the growth of the overall market. These include drawing up guidelines for securitisation (still in progress), providing residual financing through ‘viability gap funding’ and creating a government-guaranteed Indian Infrastructure Finance Company. Moreover, the authorities intend to ‘welcome’ foreign participation and are encouraging infrastructure-specific funds backed by foreign investors.

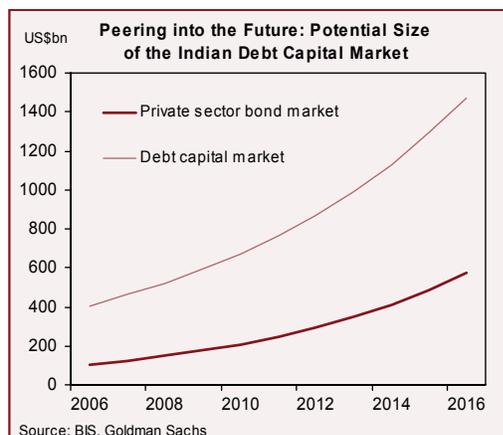
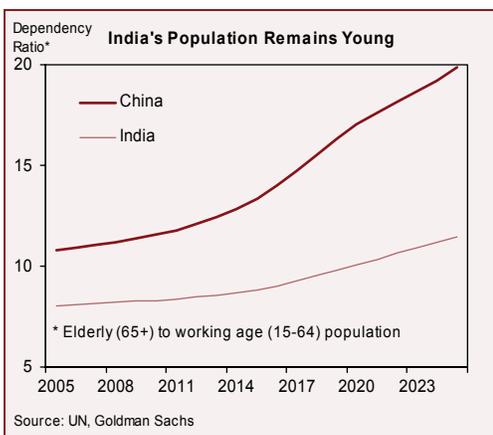
Deepening and expanding the debt market should expand the availability of credit—not just to infrastructure projects but to the private sector generally. Currently, private firms receive less than half of all available credit, despite the fact that they are more efficient than the state-owned sector and considerably more productive than agriculture and the informal sector, both of which receive significant shares of available credit. Furthermore, large companies receive most of the credit that goes to the private sector, squeezing smaller borrowers out of the bank-lending market. If the domestic debt capital market were to become a more attractive source of financing for major private firms, it could free up bank lending to support smaller companies.

A better allocation of credit would help to underpin sustained growth and would also help to bring India’s currently high interest rates closer to rates seen in developed economies—which should ease some of the concerns about capital account convertibility.

### Peering Into the Future

To estimate the potential growth of the debt market in India over the next decade, we use a statistical model that draws on the cross-sectional experience of the G7 countries to examine the interplay among debt market capitalisation, economic development, financial liberalisation and population aging. This analysis is similar to one we employed in an earlier paper to estimate the future potential size of China’s debt capital market. Details of our methodology are in the box on page 222.

In India, the pace of financial liberalisation is the critical control variable, driving 70% of the growth in the debt market. A further 20% is due to economic development, while demographics contribute less than 10%. Among countries with older populations, aging typically drives demand for bonds as investors seek pensions and life insurance, which in turn supports demand for bonds, and the supply of fixed income increases as the fiscal position



### Estimating the Future Size of India's Bond Market

To estimate the size of India's bond market a decade from now, we use a statistical analysis backed by a panel of data for the G7 countries spanning 1970-1995. Due to the low-frequency nature of evolution in bond markets, we look at the data in five-year snapshots. This gives a time series of six observations across the seven countries. In line with this, we estimate the following equation:

$$\text{SIZE}(i,t) = \text{GDPC}(i,t) + \text{DRTIO}(i,t) + \text{FINLIB}(i,t-5) + e(i,t)$$

where the index  $i$  stands for each of the G7 countries,  $t$  is time, and the variables are defined as follows:

- **SIZE** is the capitalisation of the bond market as a share of nominal GDP.
- **GDPC** is per-capita GDP (in US Dollar terms). We assume an annual GDP growth rate of about 8%, consistent with our previous work on India's economic outlook.
- **DRTIO** is the 'dependency ratio', defined as the share of the 65+ age cohort to the working age cohort (15-64). Data comes from the UN population projections.
- **FINLIB** takes values that represent the degree of financial liberalisation, ranging from 1 (no liberalisation) to 3 (full liberalisation). For details, see Kaminsky and Schmukler, *Short-Run Pain, Long-Run Gain: The Effects of Financial Liberalisation*, World Bank, 2002.

To determine the starting point for the FINLIB variable for India, we considered the capital account and the stock market, both of which are partially liberalised today, as well as the domestic financial sector, which stands between partial and no liberalisation. We thus assigned them starting values of 2, 2 and 1.5 respectively, which yields a starting point in aggregate of 1.8. In our central projections, continued gradual structural reforms push the FINLIB variable from 1.8 to 3 by 2016.

The coefficient estimates of the pooled regression are reported in the table, alongside standard statistics. Other linear specifications were also used, with the results roughly consistent with those reported here. The results show the increase in debt market to GDP ratio, with figures given as a share of GDP rather than as a share of the aggregate change.

Impact on Debt-to-GDP Ratio of Different Factors

Factor	% of GDP Change*
A \$1,000 increase in per capita GDP	1.96 (8.6)
A full financial liberalisation	12.2 (1.7)
A 1 point increase in the 'dependency ratio'	1.8 (4.7)
R-Square	0.41
Durbin-Watson	2.03

Source: GS calculations

\* t-statistics are reported in brackets.

worsens. But India's population is relatively young, with the median age forecast to rise from 24 today to just 27 in 2016, and the dependency ratio projected to edge up from eight to just nine in a decade.

Our central projections anticipate that continued gradual reform will yield substantial progress on the issues we have identified above by 2016. This points to just under a four-fold increase in the size of India's overall bond market, from about \$400bn today, or around 45% of GDP, to about \$1.5 trillion by 2016 in current Dollars, or roughly 55% of GDP at that time. This would make market capitalisation roughly two-thirds of the German debt market today, or 25% larger than the UK market today. Within this, we estimate that the private sector bond segment would show the most impressive growth, increasing nearly six-fold—from \$100bn today to \$575bn in 2016.

Of course, if India were to proceed more aggressively on financial liberalisation, the size of the bond market would grow even faster, with a larger contribution driven by financial reforms, and the converse is true as well.

The most controversial issue regarding financial liberalisation is the timing of capital account convertibility. Some authorities prefer gradual liberalisation, focusing on concerns that high interest-rate differentials with developed markets would encourage speculative inflows and create instability in the markets. Others are advocating an immediate and comprehensive opening. Immediate liberalisation is a politically ambitious stance, not least because it would require a new monetary policy framework, such as one that would target inflation rather than the external value of the currency.

We do *not* view full convertibility as a pre-requisite for creating a strong domestic debt capital market. In fact, we think DCM development can and should help to pave the way to fuller convertibility. A stronger domestic DCM should broaden access to finance and thus reduce inefficiencies throughout the economy. At the same time, capital account convertibility would improve the underlying environment for India's DCM, by reducing excess liquidity and allowing a greater range of foreign players to participate, bringing international 'best practices' to the developing market.

## **The Outlook for India's DCM**

Since the start of this decade, India has benefited from tremendous improvements in its macroeconomic and international trading environment, as well as from corporate restructuring that has improved competitiveness. It needs to capitalise on these successes in order to strengthen the basis of growth going forward. Deepening the domestic corporate debt market will be a crucial step. Among other things, India will be hard-pressed to raise \$475bn in infrastructure financing in coming years if it cannot tap a diverse pool of investors, and channel domestic and external savings into critical projects.

Despite some recent successes, the reform effort in India's DCM has not yet reached 'critical mass'. We see progress on the 'low-hanging fruit' as one means of generating this critical mass. If the authorities can streamline the issuance process and make the public markets attractive to issuers; if they can strengthen the trading platform and settlement and clearing systems; and if they can follow through on plans to allow securitisation, then the resulting momentum should help to push through the harder and politicised reforms.

**Bonding the BRICs: A Big Chance for India's Debt Capital Market**

Development of the debt market would also stand to benefit from the emergence of a strong reform champion among regulators. We see SEBI as the most likely organisation to drive the process, given its efforts to date, the expertise and experience it has gained by successfully developing the equity market, and the importance of market infrastructure, which is largely in SEBI's domain.

In all, we are confident that with competitive pressures facing India's financial players, and with the widely-acknowledged need to consolidate and build upon the impressive achievements of the past decade, the path towards a progressive maturation of India's debt capital market is inviting. The speed at which India will follow this path will depend on the authorities' willingness and capacity to be harbingers of change.

**Francesco Garzarelli, Sandra Lawson, Tushar Poddar and Pragyan Deb\***  
**November 7, 2007**

\* Pragyan Deb was a summer intern in the Economics Department and is now a doctoral student at the London School of Economics.