



Accelerating India's Growth through Financial System Reform

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Diana Farrell
Susan Lund
Ezra Greenberg
Raj Doshi
Jaeson Rosenfeld
Fabrice Morin

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Preface

Accelerating India's Growth through Financial System Reform is the result of a six-month research project by the McKinsey Global Institute, in collaboration with our McKinsey offices in India. This research builds on MGI's previous work on global capital markets and on our proprietary database of the financial assets of more than 100 countries, and it draws on the unique perspectives of our colleagues who have worked extensively with financial institutions in India and around the world.

Susan Lund, a senior fellow at the McKinsey Global Institute based in Washington, DC, worked closely with me to provide leadership on this project. The project team also included Ezra Greenberg, an MGI fellow; Jaeson Rosenfeld, an MGI senior consultant and McKinsey alumnus; Raj Doshi, a McKinsey consultant; and Fabrice Morin, an MGI fellow.

We have benefited enormously from input received from Leo Puri, leader of McKinsey's financial institutions practice for India; and Tilman Ehrbeck, Joydeep Sengupta, and Naveen Tahilyani, all principals in McKinsey's India office who have worked extensively with financial institutions. In addition, we would like to thank Suman K. Bery, director general of the National Council of Applied Economic Research; Anand P. Gupta, director of the Economic Management Institute in New Delhi; Ravi Narain, CEO of the National Stock Exchange; Ajay Shah, consultant to the Ministry of Finance; Susan Thomas, an assistant professor at the Indira Gandhi Institute of Development Research; and Mahesh Vyas, CEO of the Centre for Monitoring Indian Economy.

We also benefited from the extensive and thoughtful input received from our Academic Advisory Board members. Our board included Martin Baily, senior adviser to MGI, senior fellow at the Institute for International Economics, and formerly chief economic adviser to President Clinton; Richard Cooper, professor of international economics at Harvard University; Nicholas Lardy, a senior fellow at the Institute for International Economics; and Kenneth Rogoff, professor of economics and public policy at Harvard University and former chief economist at the International Monetary Fund.

Essential research support was provided by Tim Beacom, a senior analyst at MGI, along with Nishith Jardosh, an analyst in the McKinsey Knowledge Center in India. Gina Campbell, MGI's senior editor, provided thoughtful input and editorial support. Rebeca Robboy, MGI's external relations manager; Deadra Henderson, MGI's practice administrator; and Terry Gatto, our executive assistant, supported the effort throughout.

Our aspiration is to provide a fact base to policy makers and business leaders in India and around the world so they can make more informed and better decisions. As with all MGI projects, this work is independent and has not been commissioned or sponsored in any way by any business, government, or other institution.

Diana Farrell
Director, McKinsey Global Institute

May 2006
San Francisco

Executive Summary

India is becoming a major force in the world economy. Real GDP growth has averaged 7 percent over the past three years, and service and manufacturing exports are booming. India's equity markets have reflected these successes, tripling in value since 2003. As India develops, it will need an increasingly strong financial system—over and above a thriving equity market—in order to sustain or exceed its current rate of growth.

Our research shows, however, that on several dimensions India's financial system falls short. The system intermediates only half of the country's total savings and investment, and it channels the majority of funding to the least productive parts of the economy. Indian banks lend a much smaller fraction of deposits than banks in other countries, and the value of India's corporate bond market amounts to just 2 percent of GDP. Moreover, much of the financial system operates inefficiently.

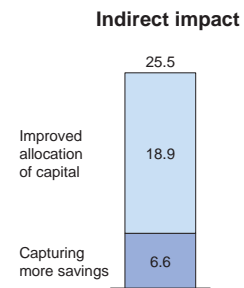
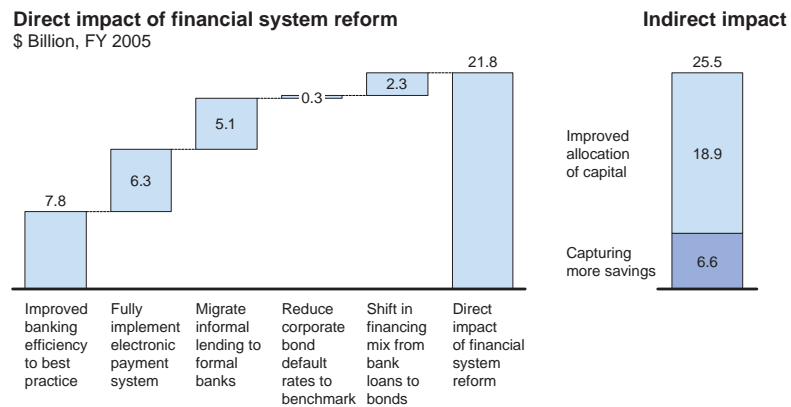
These shortcomings impose a heavy cost on India's economy. But by the same token, reforms would yield very large benefits. We calculate that an integrated program of financial system reforms could free up \$48 billion of capital per year, equivalent to 7 percent of GDP (Exhibit 1). Even more important, these reforms would raise real GDP growth to 9.4 percent a year. This would increase household incomes 30 percent above current projections by 2014, lifting millions more households out of poverty.

To capture this opportunity, India has to reduce the role of government in its financial system. Today, the government maintains many restrictions on banks and other financial intermediaries that limit competition, lower their performance, and serve to channel the majority of funding to the government

and its priority investments. Reforms to lessen government influence would result in more efficient use of savings and faster growth. That would raise tax revenues, allowing the government to spend directly on welfare programs, rather than diverting resources from the financial system and so holding back growth.

Exhibit 1

FINANCIAL SYSTEM REFORMS ARE WORTH \$48 BILLION ANNUALLY



Percent of GDP	1.1	0.9	0.7	0.1	0.3	3.2	3.5

Source: RBI; CSO; McKinsey Global Institute Analysis

The financial system is small relative to the size of the economy

Despite India’s 130-year-old stock market and long history of private banks, its financial system today intermediates a surprisingly small amount of assets relative to the size of the economy. This is shown by India’s “financial depth,” or the value of financial assets relative to GDP, which is significantly lower than in other fast-growing Asian countries (Exhibit 2).

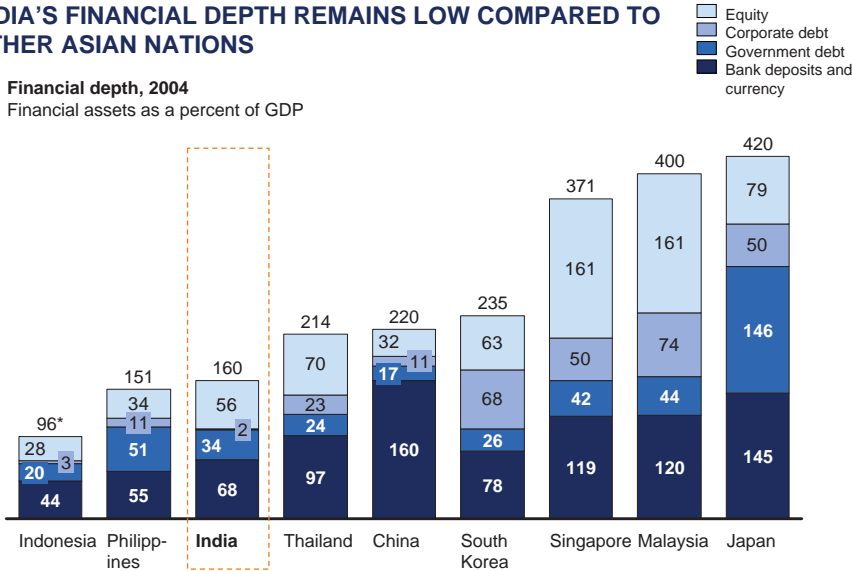
Indeed, much of the savings and investment fueling India’s GDP growth goes on outside India’s formal financial system. Indian households save 28 percent of their disposable income, a very high rate. But they invest just half of their savings into bank deposits and other financial assets. They invest another 30 percent in housing and put the remainder—which amounted to \$24 billion last year—into machinery and equipment for the 44 million tiny household enterprises that, along with agriculture, make up India’s “unorganized sector.”

Exhibit 2

INDIA'S FINANCIAL DEPTH REMAINS LOW COMPARED TO OTHER ASIAN NATIONS

Financial depth, 2004

Financial assets as a percent of GDP



Note : Numbers may not add due to rounding

Source: McKinsey Global Institute Global Financial Stock Database; team analysis

As a result, Indian households' share of physical investment in the economy has risen to a surprising 42 percent even though, with a few exceptions, household businesses are subscale, lack technology and business know-how, and have low levels of productivity. In 2005, Indian households also bought \$10.3 billion of gold, arguably another form of nonfinancial savings, making them the world's largest gold consumers.

India's economy would grow faster if the financial system captured more of the country's savings and then channeled them to larger-scale, more productive enterprises. We calculate that reforms that enabled India's financial system to capture just half of the household savings now used for gold purchases and subscale household enterprise investments and channel them more productively could add \$7 billion each year to GDP.

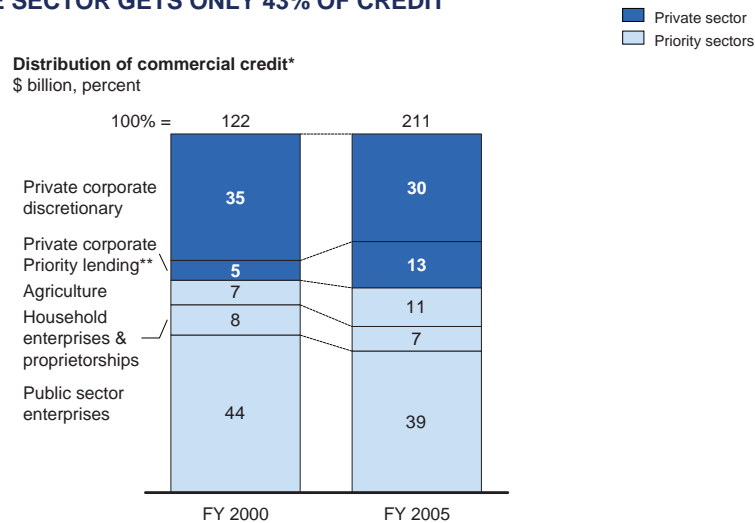
Majority of funding goes to the least productive parts of the economy

India's financial system channels only a minority of the savings it does capture to the most productive parts of the economy. India has a dynamic private corporate sector that has produced some world-class firms, especially in R&D, IT, and business-process outsourcing. But rather than fostering India's entrepreneurs, the financial system channels the majority of funding to the government and its priority investments.

India's private corporations receive just 43 percent of total credit¹ —a level that has not changed much since 1999 (Exhibit 3).² The remaining 57 percent of credit goes to state-owned enterprises, agriculture, and tiny businesses in the unorganized sector. This pattern of capital allocation impedes growth because state-owned enterprises have only half the private corporate sector's level of labor productivity and require twice as much investment to get the same additional output, while productivity in agriculture and the unorganized sector is one-tenth as high. India's equity market does a somewhat better job at funding the private sector: private company shares represent 70 percent of market capitalization. But new equity issues amount to just 2 percent of all corporate funding in India. Not surprisingly, Indian companies rely on retained earnings, which account for nearly 80 percent of the funds they raise, a far higher level than is seen in other Asian economies.

Exhibit 3

PRIVATE SECTOR GETS ONLY 43% OF CREDIT



* Gross bank credit excluding financial companies; Includes corporate bonds and private placements, loans and investments from the government to public sector enterprises.

** Estimate of lending to small corporations equals "other" priority sector lending outside of agriculture and SSI

Source: CSO; RBI; MGI; Public Enterprise Survey

- 1 Includes gross bank credit to nonfinancial companies, corporate bonds and private placements, and loans and investments from the government to public sector enterprises.
- 2 The main change that has occurred since 1999 is that the share of discretionary lending to the private sector has declined while the share of directed lending to small and medium enterprises in the private sector has expanded. This is the result of changes in the government's definition of "priority lending" to include companies such as small software developers and retailers, most of which the banks would lend to anyway.

Reforms that enabled the financial system to channel a larger portion of funding to private companies would raise productivity in the economy. State-owned firms and household enterprises would need to improve their operations to compete successfully for funding. Accompanied by continued reforms to India's labor and product markets, this would raise the productivity level of the whole economy over time and allow India to get more output for each rupee invested. We calculate that the resulting boost to GDP would be worth up to \$19 billion a year.

Government's dominant role in the financial system explains poor allocation of capital

The government's tight control of India's financial system largely explains its poor allocation of capital. Regulations on banks and other intermediaries serve to channel funding directly to the government and to its priority investments, allowing the public sector to absorb much of the country's savings.

Banks are obliged to hold 25 percent of their assets in government bonds—and in practice the state-owned banks that dominate the banking sector hold even more.³ Government policies then require banks to direct 36 percent of their loans to agriculture, household businesses, and other “priority” sectors. But such directed loans have higher default rates than other loans and are more costly to administer, due to their small size. As well as diverting credit from the more productive private sector, this policy lowers lending overall, because banks must expand unprofitable directed lending in proportion with their discretionary lending. Not surprisingly, Indian bank loans amounted to just 61 percent of deposits in March 2005⁴, one of the lowest levels in the world (Exhibit 4).

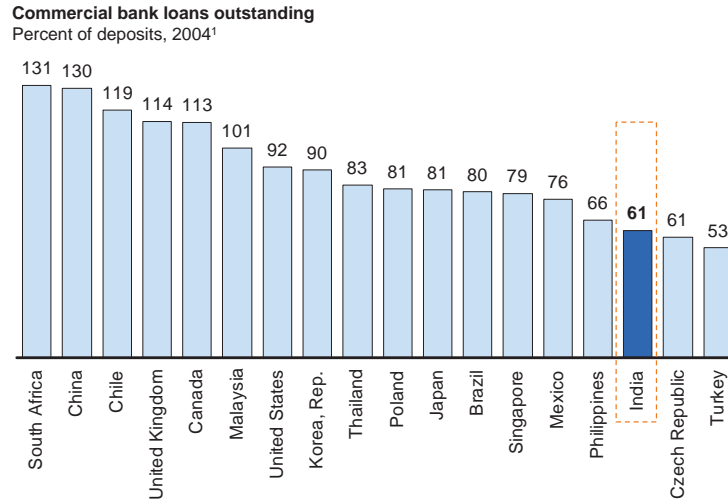
Similar policies have resulted in 90 percent of the assets of provident funds (essentially pension funds) and 50 percent of life insurance assets being held in government bonds and related securities. Without these rules, pension funds, mutual funds, and insurance companies would be an important source of demand for corporate bonds and equities in India, as they are in other countries. Such measures have stifled the development of domestic financial intermediaries: just 13 percent of workers in India's “organized sector” (mainly large companies and the government) have pension coverage.

3 Until recently, bond yields were falling and prices were rising, giving banks a profit on holding them.

4 Credit growth was 25% in the fiscal year ending March 2006. Data on deposit growth over the same period is not available.

Exhibit 4

INDIAN BANKS LEND A SMALL PORTION OF DEPOSITS



¹ India as of March, 2005

Source: RBI; EIU; McKinsey Global Institute analysis

The government maintains these controls on the financial system to ensure that funds flow to state-owned enterprises and to the rural economy, and also to fund a persistently large budget deficit. Although the central government reported a modest operating deficit of 2.4 percent of GDP in 2004, this is only the tip of the iceberg. Including the deficit on the government's capital budget and the deficits of states brings the total government deficit to 11 percent of GDP in 2004—a level that has persisted over the past 25 years, despite large variations in the macroeconomic environment over that time.

Operating inefficiencies raise financial system costs

The government's influence on India's financial system also lowers its efficiency and raises the cost of financial intermediation. We calculate that reforms that addressed these inefficiencies would save nearly \$22 billion a year.

In the banking sector, India has the highest level of state ownership of banks of any major economy today, apart from China—and even China is now seeking foreign investment in most of its major commercial banks. Although India has several high-performing new private banks, together these banks have only 9 percent market share. Foreign banks account for another 5 percent of deposits but cannot expand because of restrictions on foreign investment in the sector.

The dominance of state-owned banks reduces competition and lowers pressure on banks to improve their operations. They meet their costs by maintaining very high margins between lending and deposit rates: bank margins are 6.3 percent in India, compared to an average of 3.1 percent for South Korea, Malaysia, Singapore, and the United States.

Banks also lack competition from India's corporate bond market: its value amounts to just 2 percent of GDP. The market remains rudimentary because of the mass of regulations that unnecessarily raise issuance costs, lengthen listing procedures, and increase disclosure requirements. To avoid these hassles, Indian companies look for funding elsewhere. Some turn to private placements of debt, which total \$44 billion—more than ten times the amount of publicly traded bonds. The largest companies also issue international bonds. India's underdeveloped corporate bond market forces large companies to seek funding from banks, which in turn crowds out lending to banks' natural customers, smaller companies and consumers. If India were to develop a vibrant corporate bond market and move to the mix of bonds and bank loans seen in other emerging economies, its companies would enjoy substantially lower funding costs. Banks, in turn, would shift their focus to smaller businesses and consumers.

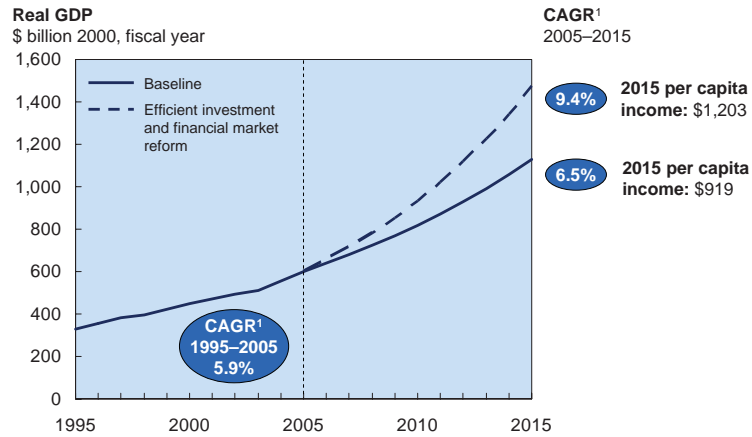
Even India's roaring equity market is constrained by heavy regulation elsewhere in the financial sector. India's equity market would perform even better if domestic financial intermediaries, with their long-term mind-set and keen eye on corporate performance, held more shares. But these intermediaries are at present required to invest in government bonds. Instead, corporate insiders own half of all shares, a situation with several drawbacks. Retail investors own only 17 percent of shares, but account for 85 percent of trading, suggesting they view the market as a gambling opportunity rather than a source of steady, long-term gains.

An integrated program of reforms could boost real GDP growth to 9.4 percent a year

An integrated program of financial system reforms can substantially raise India's growth rate. By improving capital allocation and raising the efficiency of investment in the economy, and by capturing more savings and reducing inefficiencies in the financial system, we calculate that India could grow real GDP at 9.4 percent a year, instead of the current forecast rate of 6.5 percent (Exhibit 5). By 2014, this would boost per capita income to more than \$1,200, or 30 percent higher than it would otherwise have been.

Exhibit 5

MORE EFFICIENT INVESTMENT AND FINANCIAL MARKET REFORMS CAN BOOST INDIA'S GROWTH RATE TO 9.4 PERCENT



¹ Compound annual growth rate.

Source: CSO; RBI; Oxford Economics; McKinsey Global Institute analysis

To achieve this, the government must loosen its grip on the financial system and allow financial institutions and intermediaries to respond to market signals. This means lifting directed lending policies and restrictions on the asset holdings of banks and other intermediaries to release more capital for more productive investment in the Indian economy. It also means reducing state ownership in the banking sector, developing a corporate bond market, and easing the many regulations holding back the development of pensions, mutual funds, and insurance companies. These reforms will boost competition in India's financial system, raise its efficiency, and improve its allocation of capital. They will also enable intermediaries to create more attractive consumer financial products, which will draw a larger share of household savings into the financial system, thereby increasing total investment in the economy. Together with broader liberalization throughout the economy, financial system reforms will increase productivity and unleash growth.

India's regulators have understandably resisted such reforms because of the risks of the transition: abandoning directed lending could raise rural unemployment, while releasing captive demand for government bonds could sharply increase government borrowing costs. However, the enormous potential

benefits of financial system reforms can greatly mitigate these risks. Expanding the productive sector of the economy is, over time, the best way to increase the number of well-paid jobs and lift more people out of poverty. It is the way other countries have succeeded in developing their economies. As important, the additional GDP will increase government tax revenues significantly, even without a rise in tax rates. This will allow India to pursue its important welfare objectives directly through social programs rather than by diverting resources from the financial system and hindering India's growth.

This report includes a detailed discussion of the analyses and conclusions highlighted here. It is organized into six chapters: 1. Introduction; 2. Benchmarking the performance of India's financial system; 3. Effect of financial system performance on India's economy; 4. Potential gains from financial system reform; 5. Priorities for the reform agenda; 6. Closing remarks.



1. Introduction

After 15 years of liberalization, India has one of the fastest-growing economies in the world. Real GDP growth has averaged nearly 7 percent for the past 3 years, and exports are up 20 percent this year. Revenue in India's formidable IT and business-process outsourcing (BPO) sectors are expanding at 26 percent annually in real terms and have spawned some world-class Indian companies. Equity markets have risen more than threefold since 2003, and net inflows of foreign investment in the market have tripled since 2000.

Yet as impressive as India's recent successes are, many people believe that India could do even better. In a recent address at the World Economic Forum in Davos, Prime Minister Manmohan Singh stated his country's aspiration to "grow sustainably at 8 percent per year or even more."¹ To lift millions of households out of poverty and create jobs for its rapidly expanding working-age population, India must boost growth rates to around 10 percent a year.²

There is widespread belief that India has already created the modern financial sector necessary to support such growth. They point to India's successful stock markets, high-profile private banks, and avoidance of the 1997 Asian financial crisis. But others point out that India still has a relatively low level of financial intermediation in the economy, measured by financial depth or assets of the banking system, and a very large informal lending market. So is India's financial system the foundation on which to attract more foreign investment and promote

1 Manmohan Singh, "Onward India," *Wall Street Journal Europe*, January 24, 2006.

2 Ranjit V. Pandit, "Why believe in India," *The McKinsey Quarterly*, 2005 special edition: Fulfilling India's promise, pp. 133–39.

faster growth, or does it in fact hinder growth and stand as a barrier to achieving India's aspirations? The goal of our research is to answer this question.

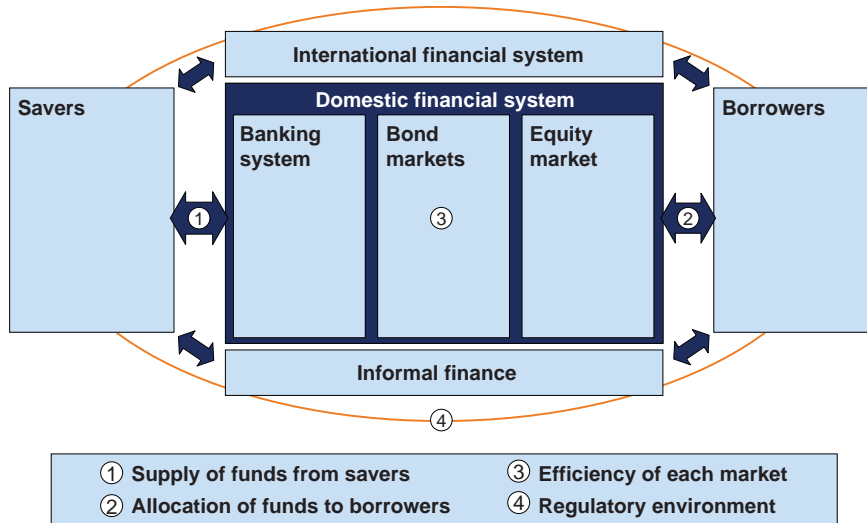
OUR APPROACH

Drawing on McKinsey's unique experience working with financial institutions and regulators in India and around the world, we conducted a detailed analysis of the performance of India's financial system. It differs from other research in several ways.

First, we take a systemic view of the financial system, assessing the performance of its components—banking system, bond markets, equity market, and payments system—and how well the system as a whole channels funds from savers to borrowers (Exhibit 1.1). This allows us to identify the root causes of performance gaps, which nearly always involve understanding the interactions among different markets and intermediaries in the system. A systemic view is also in line with our understanding that different markets and intermediaries can sometimes perform the same roles with equal efficiency. Lack of a corporate bond market, for instance, might not be a drawback for the system if there were an efficient private-placement market. What matters is whether the system as a whole enables borrowers to get the capital they need at reasonable cost, and savers to earn adequate returns on their savings.

Second, we approach financial system performance from a microeconomic perspective. In the light of McKinsey's extensive work with financial institutions, regulators, and corporations, we assess how specific parts of the financial system are functioning at an institutional and operational level. This work, therefore, complements that of other economists who take a top-down, macroeconomic perspective.

Third, we use cross-country comparisons to assess performance. We recognize that India's financial system is still developing and will not raise and allocate capital as efficiently as financial systems in mature markets. Yet comparing India's performance to other emerging markets to which it aspires, such as South Korea, Singapore, or Malaysia, is helpful for highlighting performance gaps and identifying feasible goals for India's regulators.

Exhibit 1.1**WE ARE ANALYZING INDIA'S FINANCIAL SYSTEM ACROSS FOUR DIMENSIONS**

Source: McKinsey Global Institute analysis

Finally, we examine how India's financial system performance affects growth and efficiency throughout the economy. To do so, we analyze the sources and uses of funds in India, how they flow through the financial system, and how this influences India's pattern of investment and economic structure. We then quantify the cost of financial system inefficiencies and misallocation of capital to India's households and companies, as well as the potential gains from reform.

Our goal is to provide a rigorous diagnostic of India's financial system performance and quantify the benefits of further reform. By doing so, we hope to create greater urgency in India for enacting additional reforms and provide its leaders with hard numbers on the benefits that make the necessary political trade-offs more palatable. Although we provide the necessary elements of the reform agenda and explain how they fit together, our goal is not to give detailed guidelines for how to implement each one. We leave this to future research efforts, as well as to the large body of literature on the topic in India and around the world.

THE RESEARCH METHODOLOGY

Our findings are based on a benchmarking of India's financial system performance against other countries, on McKinsey & Company's unique sector-specific perspectives and experience, and on extensive research and interviews conducted on the ground in India.

In the first phase, India's financial system performance has been measured using a comprehensive set of metrics and compared to that of other countries. These comparisons included not only developed economies such as the United States but also other emerging economies such as South Korea, Malaysia, Singapore, Chile, Brazil, and China. Data from the McKinsey Global Institute's Global Financial Stock database, combined with information from central banks, national statistical agencies, and company financial reports, were used to make a complete assessment of India's financial system performance.

In the second phase, the team identified the root causes for the gaps in performance that the benchmarking exercise revealed and assessed the flow of funds within India's economy, from savers to users of capital. We drew on McKinsey's experience serving Indian corporations to identify how well the financial system is meeting their funding needs and the root causes of performance shortfalls. We also conducted a dozen interviews in India with academic researchers, regulators, and other participants in India's financial system. This process allowed our team to acquire a unique perspective on India's financial system, its evolution, and the critical reforms that are required to catalyze its evolution.

In the last phase, we calculated the cost of financial system inefficiencies and misallocation of capital in terms of foregone GDP and slower growth rates.

QUESTIONS ADDRESSED BY THIS STUDY

Our research sheds light on several important questions:

- How does each component of India's financial system (banking system, equity market, bond market) perform compared to those in other countries, including both emerging and mature markets? What are the most critical performance gaps, and what are the root causes of those gaps?

-
- How effectively does the financial system mobilize savings and allocate capital to the most productive uses in the economy? How does this influence the pattern of investment and growth prospects for India?
 - What is the cost to India's economy of financial system inefficiencies, and what do they imply for India's growth trajectory? What would the value of reforming the system be?
 - How should India's financial system regulators coordinate and prioritize reform efforts to capture this potential value?

ORGANIZATION OF THIS REPORT

In addition to this introduction, this report is divided into five subsequent chapters:

- 2. Benchmarking the Performance of India's Financial System:** compares the performance of the components of India's financial system to that of other countries and identifies root causes for performance gaps. This includes financial depth, banking system, equity market, bond markets, financial intermediaries, payments system, and international capital flows.
- 3. Effect of Financial System Performance on India's Economy:** analyzes how effectively the financial system is mobilizing savings and allocating them to the best opportunities throughout the economy. This chapter also discusses the impact that this has on India's economic structure and performance.
- 4. Potential Gains from Financial System Reform:** quantifies the cost of financial system inefficiencies to Indian companies and households and the potential value of reforms.
- 5. Priorities for the Reform Agenda:** demonstrates why a coordinated, systematic reform effort for the banking system, capital markets, capital account, and financial intermediaries is needed, and the importance of coordinating financial system reform with broader economic liberalization. This chapter outlines key reforms that should be a priority.
- 6. Closing Remarks:** makes the case for significantly more liberalization of the financial sector and discusses the political challenges of such liberalization.



2. Benchmarking the Performance of India's Financial System

Since 1991, the government of India has pursued many reforms with the aim of liberalizing the financial sector (Exhibit 2.1).¹ These reforms have yielded some clear successes. Bank deregulation has resulted in the rapid growth of several high-performing private domestic banks and modest levels of nonperforming loans (NPLs). India's equity market capitalization has more than tripled over the past three years; it boasts a world-class market infrastructure and significant foreign portfolio investment. Like China, India also avoided the 1997–98 financial crisis that swept across Asia due to stringent limits on capital account transactions. Combined with the absence of glaring deficiencies, the general perception in both India and abroad is therefore that India's financial system is performing well and can be counted among the country's strengths.²

Yet the reality is more complicated. A broader benchmarking of India's financial system reveals that significant weaknesses remain that substantially lower its overall performance. In this chapter, we benchmark the performance of India's financial system to other emerging and mature markets using a comprehensive set of metrics (Exhibit 2.2), and we identify the root causes of underperformance. We examine the system's overall financial depth; the banking system, equity market, bond markets, financial intermediaries, and payments system; as well as India's experience with international capital flows.³ Our results show that while India's financial system is fundamentally sound and not likely to be at risk of a crisis, the performance of some of its components is surprisingly low. As we will see in the next chapters, this significantly lowers India's economic growth and wealth creation.

1 Rakesh Mohan and A. Prasad, "India's experience with financial sector development," 2005. See also Chanda, 2005, which includes a detailed catalog of reforms; and Thomas, 2005.

2 See Manmohan Singh, "Onward India," Wall Street Journal Europe, January 24, 2006.

3 India's data is published on a fiscal year that runs from April to March. When comparing India to other countries, we compare FY 2005 in India (March 2005) to 2004 in other countries (December 2004).

Exhibit 2.1

KEY FINANCIAL SYSTEM REFORMS IN INDIA SINCE 1991

Banking	<ul style="list-style-type: none"> • Reducing statutory preemptions. Statutory liquidity ratios have fallen from 37% in 1992 to 25% in 1997; cash reserve requirements have come down from 15% in 1991 to 5% today. • Deregulation of interest rates. By 1997 borrowing and lending rates were effectively deregulated except for the smallest loans. Base prime rate for lending was established. • Participation of domestic and foreign private players. Liberalized in 1993. There are now 9 new private sector banks, 20 old private sector banks, and 31 foreign banks, with combined market share of 22%. • Operating norms. Prudential norms based on international benchmarks have been implemented for capital adequacy, income recognition, asset classification, provisioning, accounting and valuation practices, exposure limits, transparency, and disclosure practices.
Equity market	<ul style="list-style-type: none"> • Securities and Exchange Board of India. SEBI became operational in 1992 as an independent regulator focused solely on the securities market. • The National Stock Exchange. NSE began trading in 1994. It was established as a national platform that could be accessed from anywhere in the country with electronically matched orders.
Bond market	<ul style="list-style-type: none"> • Corporate debt. SEBI has leveraged the modern infrastructure developed for equity trading to facilitate the secondary market in corporate debt. Bonds are traded using an electronic limit order book, and use the clearing operations and settlement systems on the exchanges. • Government securities. Transformed from a system based on issuing securities with administered rates to a captive audience to a market-based system. Major institutional reforms included the establishment of CCIL and the NDS. Yield curve is established.
Intermediaries	<ul style="list-style-type: none"> • Mutual funds. With the monopoly of UTI already broken in 1987, private competition, including foreign companies, was introduced in 1993. Investment in overseas stocks was allowed in 2003, but capped at 10% of assets under management. • Insurance. The life insurance market is still dominated by the state-owned giant, LIC. There is more competition in the casualty market. Private entry in insurance was allowed in 2000 and FDI was capped at 26%. Penetration in the life and casualty markets is still very low. • Pensions. The pension market is still effectively under state control. Returns are regulated. Privately run provident funds are allowed, but must adhere to strict investment guidelines.

Source: Literature survey; McKinsey Global Institute analysis

Exhibit 2.2

METRICS FOR BENCHMARKING FINANCIAL SYSTEM PERFORMANCE

		← Institutions →			
		Overall financial system	Banking system	Debt market	Equity market
Performance dimension	Depth	<ul style="list-style-type: none"> • Total financial system assets as a percentage of GDP 	<ul style="list-style-type: none"> • Deposits (corporate and retail) as a percent of GDP 	<ul style="list-style-type: none"> • Corporate debt market size as percentage of GDP • Percentage of corporate debt coming from bonds • Government debt market size as a percentage of GDP 	<ul style="list-style-type: none"> • Equity market size as a percentage of GDP • Portion of equity market growth due to earnings increases vs. P/E increases
	Access and liquidity	<ul style="list-style-type: none"> • Size of informal lending market • Currency in circulation • Amount invested in non-financial assets (e.g., gold, real estate) 	<ul style="list-style-type: none"> • Number of bank branches per million inhabitants • Number of ATMs per million inhabitants • Percentage of households with bank relationship 	<ul style="list-style-type: none"> • Longest maturity on yield curve • Bid-ask spread • Volume of secondary trading 	<ul style="list-style-type: none"> • Equity market turnover • Bid-ask spread • Impact cost of large trades • Proportion of retail vs. institutional investors, domestic vs. foreign
	Efficiency / cost of intermediation	<ul style="list-style-type: none"> • Relative size of banking system vs. debt market vs. equity market 	<ul style="list-style-type: none"> • Lending as a percentage of deposits • Capital adequacy ratio • Nonperforming loans as a percentage of total loans • Bank efficiency ratio 	<ul style="list-style-type: none"> • Corporate bond default rate • Commissions in basis points • Cost of issuance 	<ul style="list-style-type: none"> • Average trading commissions in basis points • Cost of issuance
	Allocation of capital	<ul style="list-style-type: none"> • Percentage of total financing going to consumers, government, and corporate sector • Distribution of total financing by firm size, ownership, industry 	<ul style="list-style-type: none"> • Percentage of credit to consumers (including mortgages) • Distribution of credit by firm size, ownership, industry 	<ul style="list-style-type: none"> • Distribution of issuers by firm size, industry, firm ownership 	<ul style="list-style-type: none"> • Percentage of market capitalization in top 10 companies • Distribution of issuers by industry, firm size, firm ownership

Source: McKinsey Global Institute analysis

FINANCIAL DEPTH IS LOWER THAN OTHER ASIAN NATIONS

Financial system depth is a broad measure of the level of financial intermediation in the economy and is one way to measure how well a financial system is mobilizing savings. It is the value of a nation's stock of financial assets over GDP. In contrast to other researchers,⁴ we measure financial assets from the bottom up, that is, the value of a nation's money supply and bank deposits, the market capitalization of its listed companies, and the face value of the outstanding corporate and government debt securities (both domestic and international issues). This not only gives us a view of total financial depth but also allows us to analyze each market separately.

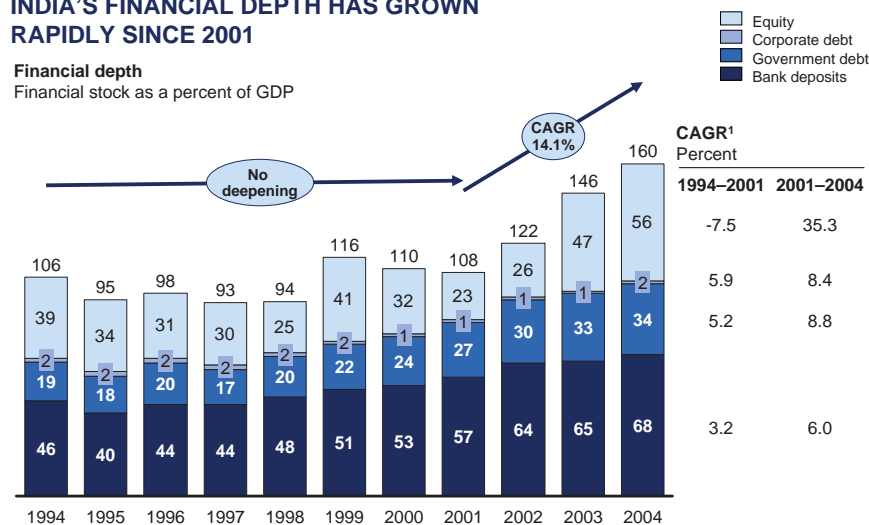
Although financial market reforms began in 1991, India's financial system depth did not begin to increase appreciably until 2001, when it rose from 108 percent of GDP to 160 percent by 2004 (Exhibit 2.3). Over the past ten years, India's growth in financial depth has exceeded that of most of the Asian crisis countries (where financial depth fell dramatically in 1997) (Exhibit 2.4). But it has remained well below that of fast-growing emerging economies, including China, Russia, Brazil, and South Korea, and even below that of mature economies in the Euro area.

Exhibit 2.3

INDIA'S FINANCIAL DEPTH HAS GROWN RAPIDLY SINCE 2001

Financial depth

Financial stock as a percent of GDP



Note : Numbers may not add due to rounding

¹ Compound annual growth rate

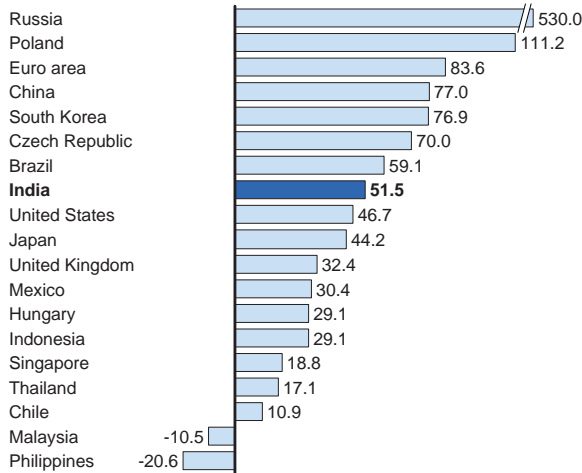
Source: McKinsey Global Institute Global Financial Stock Database; team analysis

4 See Technical notes at the end of this report.

Exhibit 2.4

GROWTH IN FINANCIAL DEPTH

Change in financial depth
Percent, 1994–2004



Source: McKinsey Global Institute Global Financial Stock Database

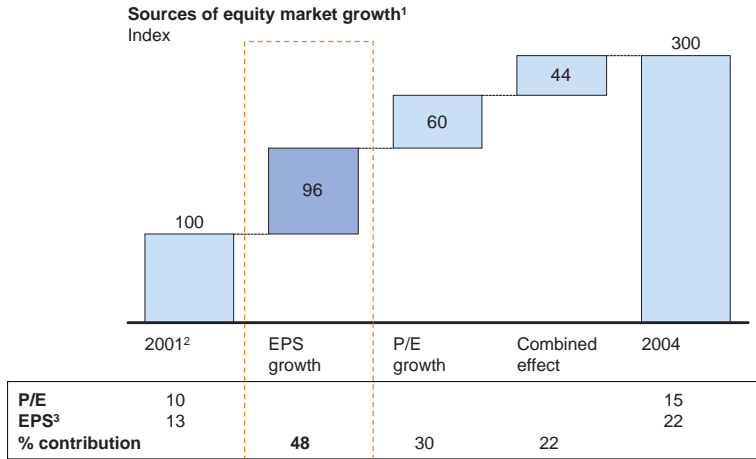
More than 60 percent of the increase in India's financial depth over that period is due to growth in the market capitalization of equities. India's equity market growth has been mostly "healthy" deepening: 48 percent comes from increases in the underlying earnings of listed companies, while just 30 percent is due to growth in the P/E (the remaining growth is explained by their comovement) (Exhibit 2.5). Moreover, we find that earnings growth occurred across many sectors and was not just limited to the IT and BPO industries. In addition, P/E ratios, although rising, are still not overly high: they increased from a median of 10 in 2001 to 15 at the end of 2004.⁵

Growth in bank deposits explains another 20 percent of the increase in India's financial depth. This has been due to an increase in deposit interest rates in 2004; growing deposits from nonresident Indians; and conversion of Industrial Development Bank of India into a deposit-taking commercial bank. Growth in government securities, reflecting the growing fiscal deficits of both state and central government, explains the remainder of increased financial depth. India's corporate bond market, meanwhile, is just 2 percent of GDP, a level that has not changed since 1991.

⁵ India's equity market capitalization has increased since then, and it is unclear how much is due to earnings vs. PE growth.

Exhibit 2.5

EARNINGS GROWTH EXPLAINS HALF OF THE MARKET CAP INCREASE IN INDIA BETWEEN 2001 AND 2004



¹ Methodology = P/E growth = $P_{2001} + (\Delta P/E \times EPS_{2001})$; EPS growth = $P_{2001} \times \Delta EPS + P/E_{2001}$; combined effect = $\Delta P/E \times \Delta EPS$.

² 12/31/2001–12/31/2004 due to inflated P/Es during early 2001.

³ Earnings per share

Source: Datastream; McKinsey Global Institute analysis

At 160 percent of GDP, India's financial depth at the end of 2004 was higher than countries with similar levels of per capita income, such as the Philippines and Indonesia. But it is significantly lower than China and the other fast-growing Asian economies that India aspires to join (Exhibit 2.6). Many observers find this surprising—particularly the comparison to China—given India's long history of financial markets (which date back to the 1870s), private banks, and Anglo-Saxon legal traditions, which have proved important in the financial system development in other countries.

One possible explanation for India's relatively low financial depth is that it has many quasi-formal and informal institutions that intermediate capital that are not counted in its financial depth, such as postal savings banks⁶, development banks, rural credit cooperatives, and private placement bonds. But these institutions are not significantly larger in India than they are in other countries (Exhibit 2.7) and would not explain much of the difference. India's financial system thus has a clear opportunity to increase the level of financial intermediation in the economy by mobilizing more savings.

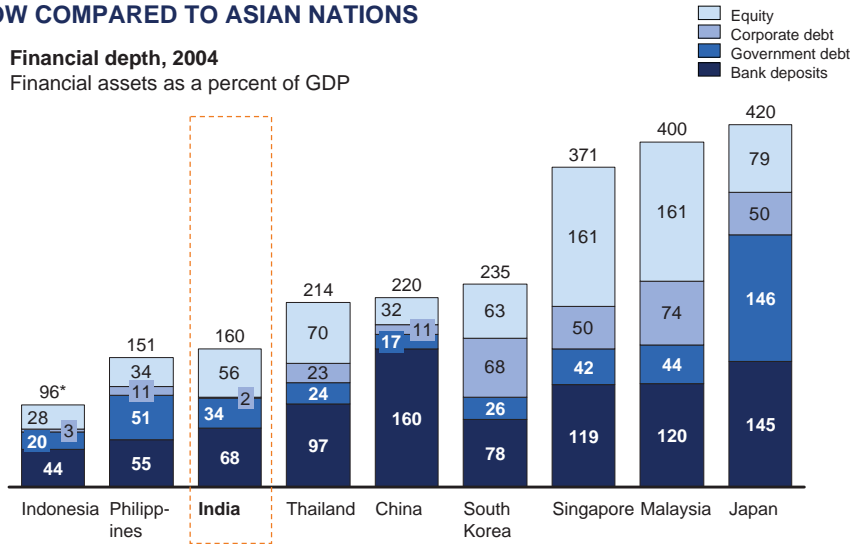
⁶ India's government does not count postal savings deposits in its statistics on money supply or bank deposits, and so they are not included in MGI's Global Financial Stock Database. Other countries that have large postal savings systems, such as Japan, report their data in the same way.

Exhibit 2.6

INDIA'S FINANCIAL DEPTH HAS REMAINED DISAPPOINTINGLY LOW COMPARED TO ASIAN NATIONS

Financial depth, 2004

Financial assets as a percent of GDP

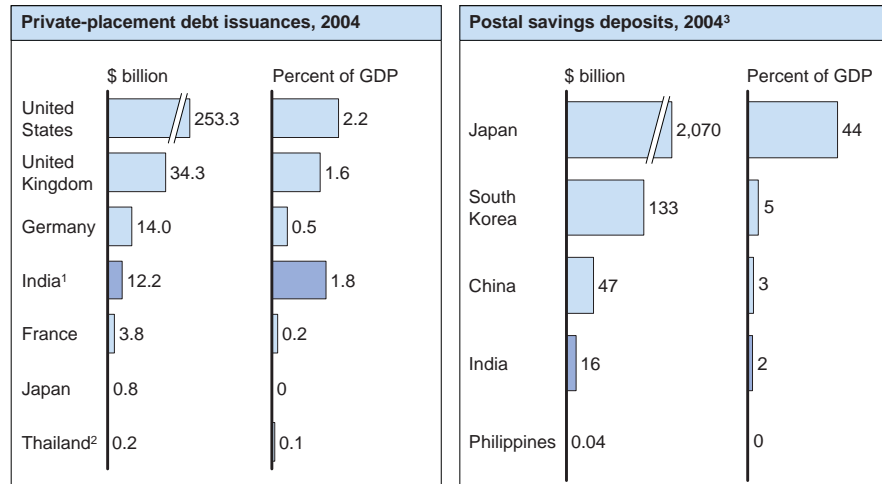


Note : Numbers may not add due to rounding

Source: McKinsey Global Institute Global Financial Stock Database; team analysis

Exhibit 2.7

QUASI-FORMAL FINANCIAL INSTITUTIONS DO NOT EXPLAIN INDIA'S LACK OF FINANCIAL DEPTH



1 As of March, 2005

2 Thailand began tracking private placements in 2005; data shown is 2005 YTD on 12/08/05.

3 Latest available data shown (2000–04).

Source: SDC; NSE; Prime database; Bloomberg; SEC (Thailand); UN department of Economics and Social Affairs (2001); Japan Post; Korea Post; Philippine Postal Savings Bank; EIU; McKinsey Global Institute analysis

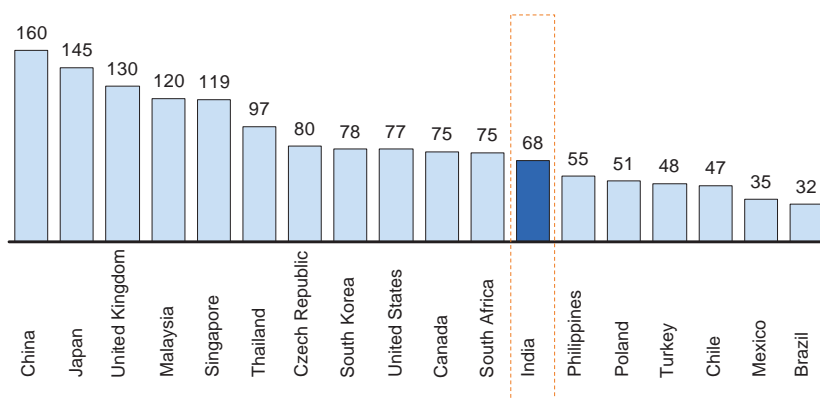
BANKING SYSTEM

With deposits equivalent to 68 percent of GDP in the start of 2005, overall banking system depth is lower than that of South Korea, the United States, and most other Asian countries (Exhibit 2.8). Still, the sector has shown many improvements.⁷ Nonperforming loans amount to less than 5 percent of total loans outstanding, a low level compared to many emerging markets, and capital adequacy and bank efficiency ratios appear to be in line with international norms (Exhibit 2.9). Regulators have made significant progress toward improving the banking environment, moving in line with prudential norms, freeing interest rates, and putting in place new loan recovery procedures. Since 1991, the Reserve Bank of India (RBI), which regulates the banking sector, has also created a limited degree of competition in the sector, with the entry of several new domestic private banks and some foreign bank presence. In urban areas, some of these banks approach international standards in their operations and sophistication.

Exhibit 2.8

COMPARISON OF BANKING SYSTEM SIZE ACROSS COUNTRIES

Bank deposits, money market, and currency
Percent of GDP, 2004¹



¹ India as of March, 2005

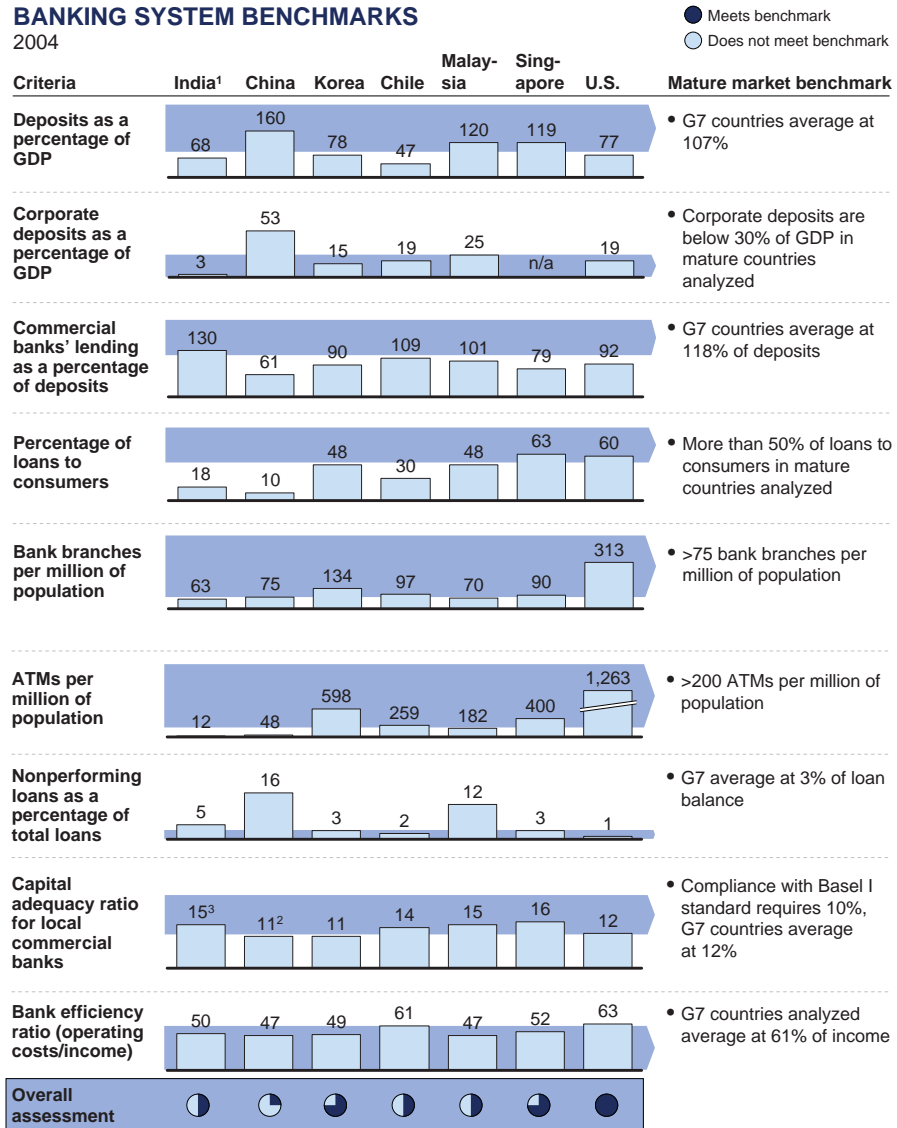
Source: McKinsey Global Institute Global Financial Stock Database; team analysis

⁷ See McKinsey & Company's report *Indian Banking 2010* for more details on India's banking sector.

Exhibit 2.9

BANKING SYSTEM BENCHMARKS

2004



¹ As of March, 2005

² 2002 data (2004 and 2003 unavailable)

³ 2003 data (2004 unavailable)

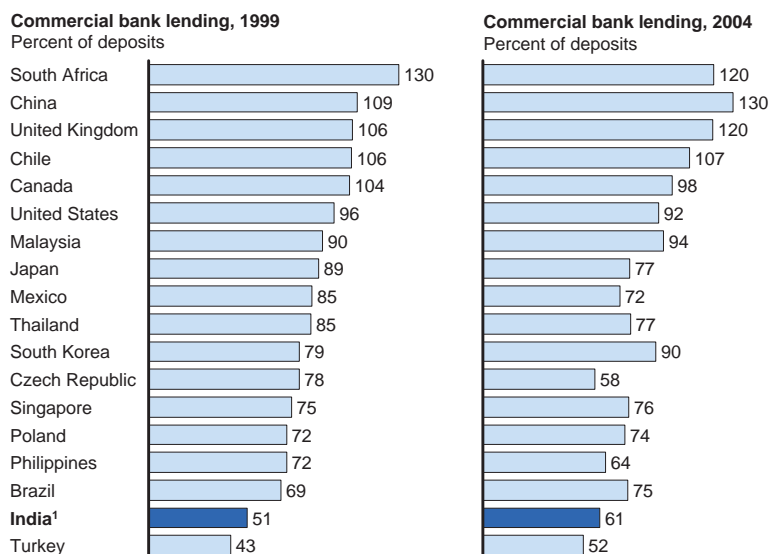
Source: Local central banks; EIU; McKinsey Global Institute analysis

Improvements needed in lending, interest rates, consumer finance, and bank penetration

A closer look at how well India's banking sector is performing its role in the economy reveals four significant performance gaps. First, Indian banks lend out a much lower portion of their deposits than their counterparts in other countries (Exhibit 2.10). At the end of 2004, they lent only 61 percent of deposits, far less

Exhibit 2.10

INDIAN BANKS LEND A SMALL PORTION OF DEPOSITS



¹ As of March, 2005

Source: EIU; RBI; McKinsey Global Institute analysis

than the G-7 average of 114 percent, and much less than other Asian nations such as Thailand (77 percent) and South Korea (90 percent).⁸ Moreover, only about half of lending is for the term loans typically used for investments. Since 1999, the level of bank lending has risen only modestly, from 51 percent of deposits to 61 percent. More and faster change in this arena is needed.

Second, interest rates are surprisingly inflexible and do not appear to influence investment in the economy. Interest rates should also play an important role in capital allocation by pricing risk and creating appropriate hurdle rates for borrowers. But although rates on all but the smallest loans for priority sectors have been fully deregulated, they do not vary as much as one would expect with market-driven rates. For instance, since 2000, the cost of funds for banks fell by 40 percent, but the average lending rate they charge borrowers has fallen by only half that much. This “downward rigidity” of lending rates has emerged as a “vital policy issue” for RBI over this period, according to RBI reports.⁹

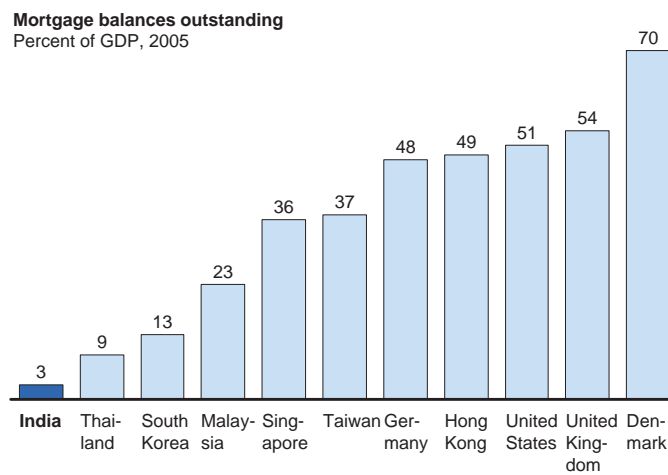
⁸ Credit growth was above 25 percent in the fiscal year that ended March 31, 2006. There is no data yet on deposit growth over the same period, however.

⁹ RBI, Report on Trend and Progress of Banking in India, 2004–05.

Third, consumer and mortgage lending is nascent, as banks continue to focus on corporate lending. In 2004, just 18 percent of outstanding bank credit was for mortgages and consumer loans. At less than 3 percent of GDP, mortgage penetration in 2005 was far below other countries (Exhibit 2.11).

Exhibit 2.11

INDIA'S MORTGAGE MARKET IS VERY SMALL COMPARED TO OTHER COUNTRIES



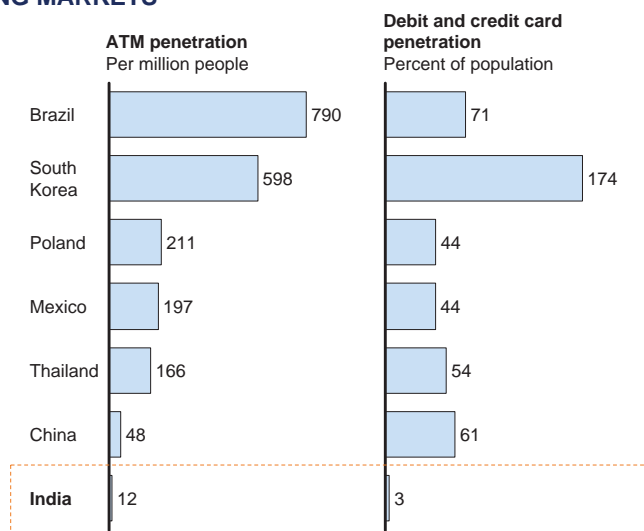
Source: Primary Real Estate Advisors, July 2005

Finally, the penetration of the banking system into India's population is low, and banking activity remains concentrated in urban areas. India has only 12 ATMs per million people, compared to 48 in China and nearly 600 in South Korea, and credit and debit card penetration is low (Exhibit 2.12). Although rural markets are now home to 70 percent of all bank branches, thanks to government stipulations on the portion of branches that must be in rural areas, they account for just 12.5 percent of total bank credit and 13 percent of deposits. Moreover, while there are approximately 0.8 bank accounts per household in urban areas, rural households average only 0.2 accounts. Lack of bank penetration limits the system's ability to mobilize savings and thus contributes to India's low financial depth.

Exhibit 2.12

PENETRATION OF BANKING PRODUCTS IS LOW COMPARED TO OTHER EMERGING MARKETS

FY 2005

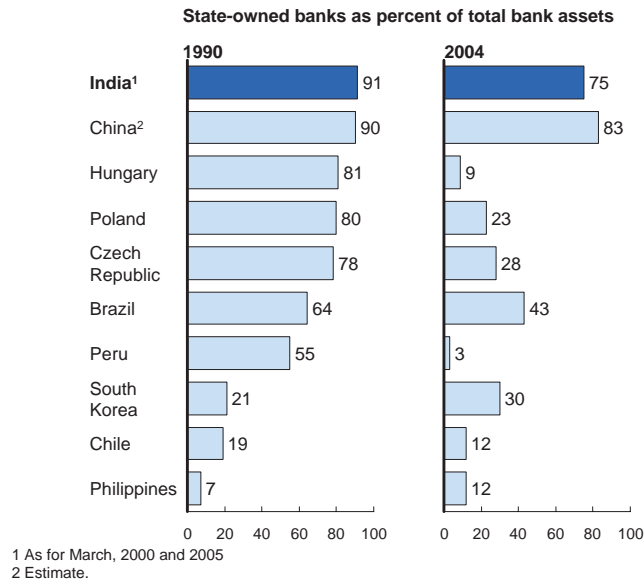


Source: India Banking 2010; McKinsey Global Institute analysis

Large government role and weak bank operations explain performance gaps

The large role played by government in India's financial system—as a regulator, a borrower, and an owner of financial institutions—along with weak operations in many banks, explains these performance gaps:

- *High level of government ownership.* India has the highest level of state ownership of banks of any major economy apart from China—and even China is now actively seeking foreign investment in its major commercial banks (Exhibit 2.13). In 2004, state banks controlled 75 percent of bank assets. Although India has several high-performing domestic private banks, such as ICICI and HDFC, their market share is just 7 percent and 2 percent, respectively. When measured by total deposits, private banks as a group maintain just a 17 percent market share. (Private banks include some old private banks that perform far below the new private banks.) Foreign banks, led by Citibank, Standard Chartered, and HSBC, also have a presence, but they maintain just 5 percent market share in bank deposits. Moreover, limits on foreign investment in the banking sector stipulate that no foreign bank can own more than 5 percent of a domestic private bank, a regulation the RBI says will be maintained until 2009. Private and foreign

Exhibit 2.13**STATE-OWNED BANKS ARE DOMINANT IN INDIA**

banks have thus not had sufficient market share to challenge the dominance of state banks or produce significant changes in their level of efficiency. Lack of competition in India's banking sector can be seen clearly in banks' responses to lower interest rates in recent years. Since 2000, banks' cost of funds has dropped by 40 percent. But rather than passing on lower interest rates to borrowers, banks have kept lending rates steady while dropping deposit rates. This has increased the spread between borrowing and lending rates by 125 basis points (Exhibit 2.14). This failure to pass on lower interest rates may help explain why India's investment rate has been relatively stable at around 25 percent of GDP, even though the real prime lending rate, which is the reference rate for all loans by banks, has fallen by 750 basis points since its peak in 1996.

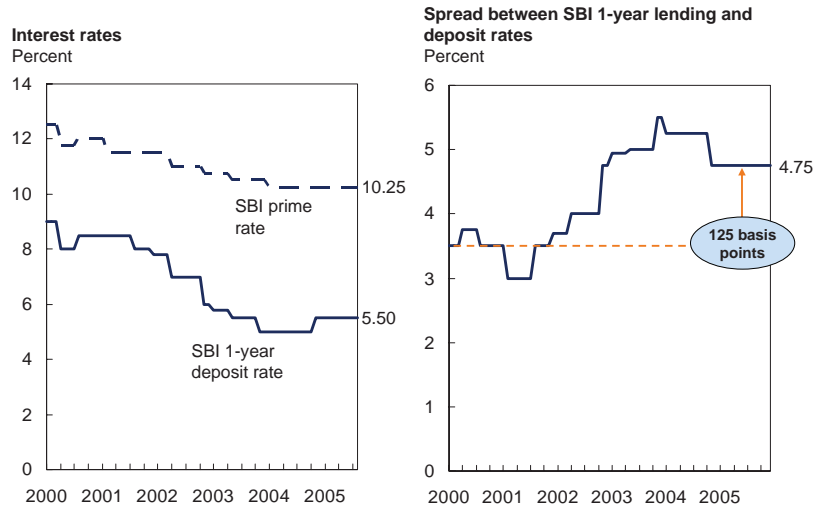
The high level of state ownership of banks also helps to explain India's low lending levels. As of March 2005, state bank loans were just 57 percent of deposits, compared to 70 percent for private banks and 87 percent for foreign banks (Exhibit 2.15). Like overall lending as a percent of deposits, this rate is only marginally higher than it was five years ago, indicating the slow pace of change. It also contributes to a low level of consumer lending, because the private and foreign banks are leaders in consumer finance. Moreover, lack of

competitive pressure explains the low bank penetration among the population, because banks are not pushed to expand operations and seek new types of depositors or borrowers.

Exhibit 2.14

BANK LENDING MARGINS ARE GROWING AS DEPOSIT RATES DROP

State Bank of India

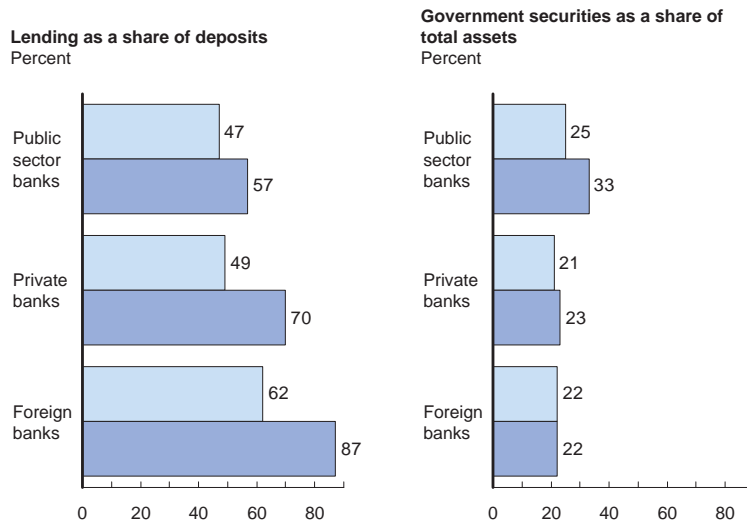


Source: RBI; Bloomberg; McKinsey Global Institute analysis

Exhibit 2.15

PUBLIC SECTOR BANKS LEND LESS AND HOLD MORE GOVERNMENT SECURITIES

FY 2000
FY 2005



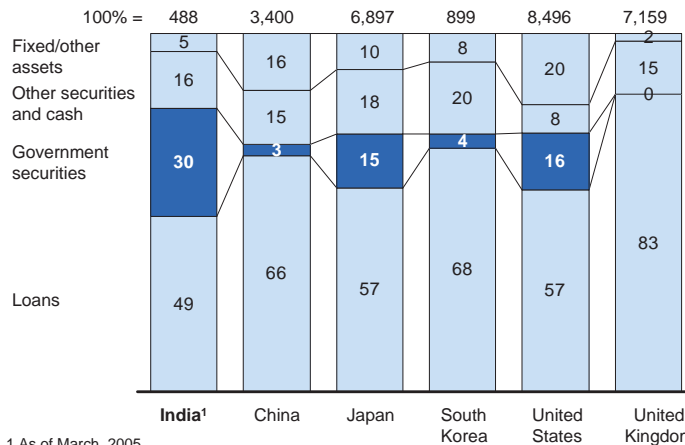
Source: RBI; McKinsey Global Institute analysis

- Restrictions on bank asset holdings.** India's low level of lending and consumer finance is also explained in part by government restrictions on the asset holdings of banks. The "statutory liquidity ratio" (SLR) requires banks to hold 25 percent of their assets in government bonds and securities rather than loans. (This is on top of the cash reserve requirement of 5 percent.) As a result, Indian banks hold far more of their asset portfolios in government bonds than banks in other countries, which directly lowers the amount of funds available for lending (Exhibit 2.16). State-owned banks exceed the SLR requirement, holding an average of 33 percent of their assets in government securities over the past five years, compared to 23 percent for private and foreign banks. This has been profitable because bond prices were rising. But greater competition would drive them toward developing the skills necessary for taking greater risks and earning higher returns on lending.

Exhibit 2.16

INDIAN BANKS HAVE HIGH PORTION OF ASSETS IN GOVERNMENT SECURITIES

Asset breakdown of banks
Percent, \$ billion, 2004



¹ As of March, 2005

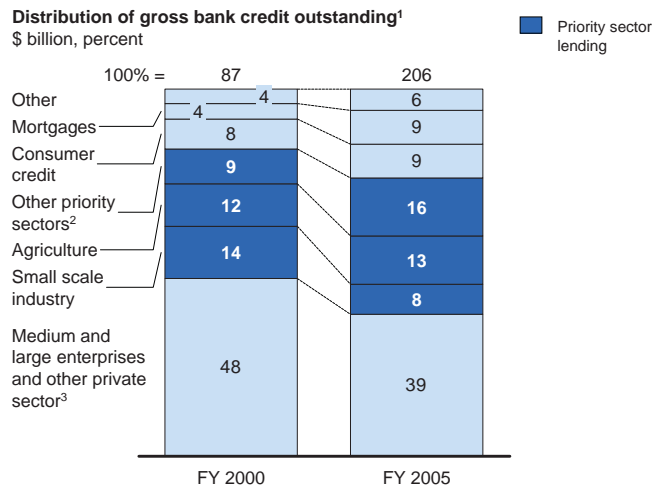
Source: RBI; bank financial statements; Financial Supervisory Service (South Korea); PBOC; Bank of England; Federal Reserve Bank of the US; McKinsey Global Institute analysis

- Directed lending regulations.** Directed lending regulations stipulate that 36 percent of loans go to so-called priority sectors identified by the government to improve access for small borrowers. A holdover from when banks were nationalized in 1969, the priority sectors include agriculture, small-scale industries, and other small businesses. In response to lobbying efforts by

banks, the definition of the priority sectors has evolved somewhat over time and now includes such things as loans to small businesses in the retail and software industry.¹⁰ In 2004, priority sector lending accounted for 37 percent of all outstanding bank credit and more than half of outstanding commercial loans. This figure has remained constant over the past five years, while the portion of bank credit going to private companies has actually declined (Exhibit 2.17). These regulations lower overall bank lending. This is because priority sector lending has proved costly for banks. Banks often have difficulty in finding good candidates, and priority sector loans are more likely to become non-performing than discretionary loans (Exhibit 2.18). The smallest loans (less than 2 lakh, approximately \$4,500) still carry a regulated interest rate, making it an unprofitable business for banks. Because of all the restrictions, many banks simply write off priority lending as a loss and do not attempt to make lending to small businesses and rural areas into a profitable business.

Exhibit 2.17

PRIORITY SECTORS TAKE MORE THAN ONE-THIRD OF ALL LENDING

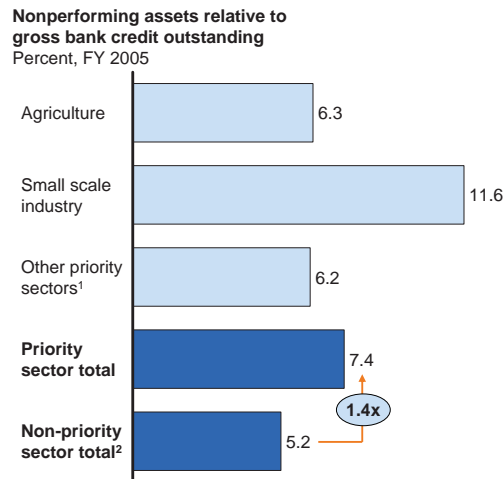


1 Excludes public food procurement credit
 2 Small businesses determined by either amount of capital, sales, or employees. Now includes small loans to software industry and investment in venture capital funds registered with SEBI.
 3 Includes wholesale trade, tourism, and non-bank financial companies.
 Source: RBI; CSO; McKinsey Global Institute analysis

10 The full definition of the priority sector includes agriculture (both direct and indirect); small-scale industries; small roads and water transport operators; small business; retail trade; professional and self-employed persons; state-sponsored organizations for scheduled castes/scheduled tribes; education; housing (both direct and indirect); consumption loans; microcredit; small loans to the software, food, and agro-processing sector; and deposits with Security and Exchange Board of India-registered venture funds.

Exhibit 2.18

PRIORITY SECTOR LOAN DEFAULT RATE IS 40 PERCENT HIGHER THAN THE NON-PRIORITY SECTOR



¹ Small businesses determined by either amount of capital, sales or employees. Now includes small loans to software industry and investment in venture capital funds registered with SEBI.

² Includes non-priority sector commercial credit, mortgages, consumer loans, and other.

Source: RBI; CSO; McKinsey Global Institute analysis

Moreover, they have a disincentive to expand lending of any kind, because priority loans must increase proportionally with discretionary lending. Thus, although well-intentioned, directed lending programs have likely reduced the total amount of credit to India's economy and may well have reduced the total credit available to the priority sectors as well.

- *Weak bank operations.* Lending operations are weak in much of India's banking sector. Previous MGI research found that in 2000, the productivity of India's public sector banks is just 10 percent of US levels, while private sector banks as a group (including old private banks) operate at about 33 percent of US productivity levels.¹¹ Although some of India's state-owned banks are upgrading their risk-management and lending skills, lack of profit pressure and strong governance in the banks limits the pace of their progress.

Corporate governance across the sector continues to be weak. Boards typically lack independence from management and are not actively engaged in issues such as CEO appointment and corporate strategy.

¹¹ See McKinsey Global Institute, *India: The Growth Imperative*, 2001. Available for free online at www.mckinsey.com/mgi/.

Moreover, they lack clear criteria for nominating new board members and evaluating criteria. In addition, because lending levels are low and a large portion of loans have traditionally gone to large public sector enterprises or priority sectors, many loan officers lack the skills to assess credit risks for smaller borrowers or consumer lending. Lack of updated IT capabilities and analytical tools compounds the problem; so does lack of a nationwide credit bureau to provide information on potential borrowers.

Meanwhile, RBI's intense focus on limiting nonperforming loans has reduced the incentives for extending loans and taking risks. While undoubtedly a laudable goal, this conservative stance has created a disincentive for risk taking among loan officers, particularly within state-owned banks. Because state bank employees are civil servants, loan defaults trigger corruption investigations by the Central Vigilance Commission. Academic research has found that bank lending falls by as much as 5 percent over the 18 months after an investigation.¹² Rather than punishing banks for making bad loans, regulators instead should give banks incentives to upgrade lending skills so that banks can expand lending without increasing the level of NPLs.

Informal lending market is very large

Due to the widespread lack of access to the formal banking system in rural areas, many households and small businesses turn to India's very large informal lending market. By "informal lending," we mean credit obtained outside the formal financial system, from money lenders, curb finance, underground financial institutions, and friends and relatives. As mentioned earlier, providing rural access to the banking system has been a primary objective of India's regulators over the past 20 years or more. Today there is an extensive network of rural credit cooperatives, and commercial banks are required to maintain 25 percent of their branches in rural areas. India also encourages banks to link up with informal "self-help groups," which operate like rotating credit associations and when linked to a bank can obtain additional credit from it. Some of the largest banks are starting to fund official microfinance providers, in part because this qualifies for priority sector lending requirements. In addition, India requires that 21 percent of commercial bank lending goes to agriculture and small-scale industry, and it has funded billions of microfinance projects for rural areas.

¹² Banerjee, Cole, and Duflo, 2003.

Yet despite all these measures, informal lending (which excluded microfinance) continues to thrive in India. In India, we estimate that informal lending in rural areas amounts to as much as \$85 billion—roughly one-third the amount of credit from the formal financial system. Although informal lending exists in every country, it is particularly large compared to formal bank credit in India. Interviews suggest that entire industries in India, such as the leasing of used equipment, operates mainly with informal credit. In agriculture, an estimated 70 percent of all credit is from informal sources. Indeed, combined with the low penetration of banks in rural areas discussed previously, it is clear that much of India's countryside operates with informal, rather than formal, finance.

Given the great efforts of India's government to provide finance to rural areas, why does informal lending persist? There are several reasons. One is the limited overall supply of formal finance. Another is the inability of formal finance to reach the intended clients.¹³ Due to social class divisions, microfinance projects and credit from rural credit cooperatives often go to the wealthiest households in rural villages. Banks, meanwhile, have understandably grown adept at finding the best credit risks that fit priority lending definitions, such as potato farmers that supply potato chip manufacturers, or small software start-ups that meet the criteria for small-scale industry. As a result, informal finance continues to fill an important role in India's economy.

EQUITY MARKET

India's equity market is starting to bear the fruits of financial market reform. Equity market depth was 56 percent of GDP at the end of 2004, more than double the level in 2002, and is much higher still today. Moreover, as we saw earlier, much of this growth since 2001 has come from an increase in earnings (Exhibit 2.19). Liquidity is very high for the largest companies, and commissions are in the same range as more developed markets (Exhibit 2.20). Still, there is potential for further market development.

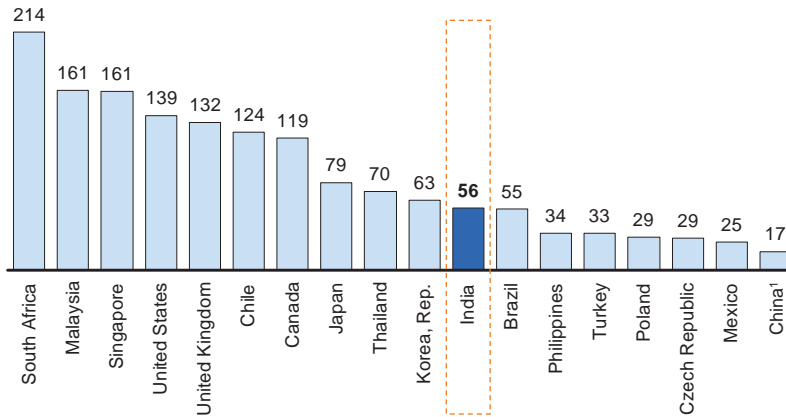
The transformation of the equity markets began in 1992 when the Security and Exchange Board of India (SEBI) was granted statutory power as an independent regulatory authority. Two years later, the National Stock Exchange (NSE) was created, with trading based on electronically matched orders, to create competition

¹³ See Tsai, 2004

Exhibit 2.19

COMPARISON OF EQUITY MARKET SIZE ACROSS COUNTRIES

Equity capitalization
Percent of GDP, 2004

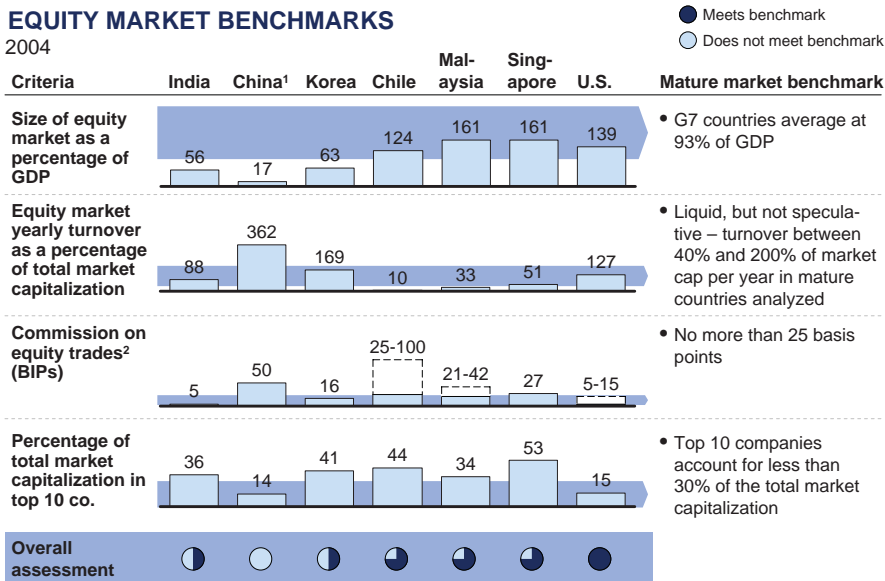


¹ Adjusted for non-tradable equity, depth would otherwise be 33% of GDP
Source: McKinsey Global Institute Global Financial Stock Database

Exhibit 2.20

EQUITY MARKET BENCHMARKS

2004



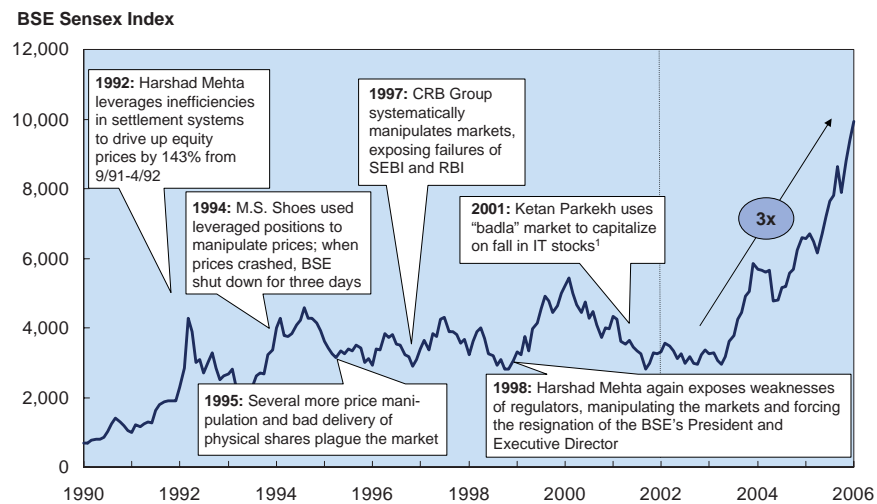
¹ Adjusted for non-tradable equity, depth would otherwise be 33% of GDP.
² Estimate
Source: McKinsey Global Institute analysis

for the 100-year-old Bombay Stock Exchange (BSE). Within two years of the opening of the NSE, the BSE replaced its open-outcry exchange with an electronic trading platform. Regulators also created the National Securities Clearing Corporation to guarantee settlement and eliminate counterparty risk, and the National Securities Depository Ltd. to establish a single depository for all shares issued in the country, enabling dematerialization and guaranteeing settlement.

Despite the good market infrastructure, India's equity markets have been subject to price manipulations. Scandals persisted throughout the 1990s, hampering market development (Exhibit 2.21). Since 2003, however, the market index has increased threefold. New issues of equity were nil in 2001 and 2002 as regulators reacted to the scandals, but they have picked up since then. In 2003, 2004, and 2005, there were 112 IPOs on the NSE. Still, this pales in comparison to the 201 IPOs in South Korea in the same years, although the value of IPOs was larger in India. Thailand, with its smaller economy, had 127 IPOs that raised two and a half times as much money for companies, relative to GDP.

Exhibit 2.21

EQUITY MARKET SCANDALS SLOWED MARKET DEVELOPMENT THROUGHOUT THE 1990's



¹ "Badla" is the purchases with borrowed funds which do not have to be repaid for up to 70 days. Unlike in futures, it is the broker who has to maintain a marked-to-market margin. Badla has been banned by SEBI.

Source: BSE; Shaw and Thomas (2001) "Evolution of securities markets in 1990s," ICRIR WP #91; McKinsey Global Institute analysis

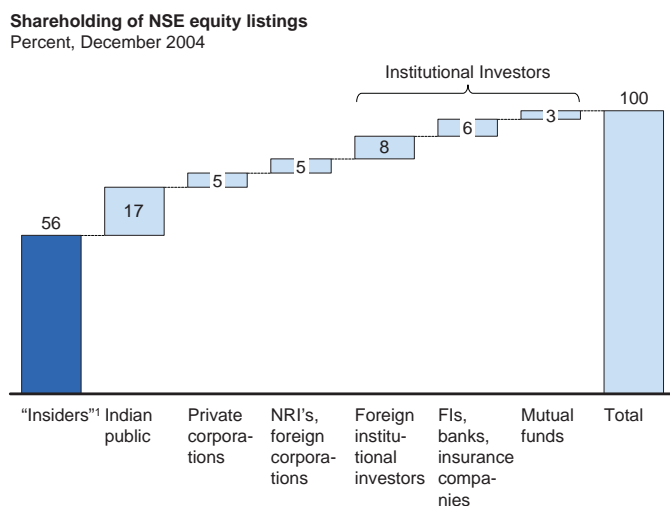
In addition to continued stricter monitoring and enforcement to prevent more scandals, there are three aspects of India's equity markets that could be improved with further reform.

High level of share ownership by corporate insiders

More than half of India's equity shares are held by corporate insiders (Exhibit 2.22). This reduces independent oversight of management and enables the majority owners to extract benefits at the expense of minority shareholders. This has proved particularly problematic in emerging markets such as India where weak governance structures and legal systems are unable to compensate and enforce minority shareholder rights.¹⁴ Moreover, concentrated ownership of equity has prevented a broad sharing of the equity market gains by the Indian public, which owns only 17 percent of shares.

Exhibit 2.22

56% OF EQUITY SHARES ARE HELD BY CORPORATE INSIDERS



¹ Includes all those who, in bringing into existence a company or converting their private business into a company, secure control of the management of such company through shareholding and/or otherwise

Source: NSE factbook, McKinsey Global Institute analysis

¹⁴ The International Monetary Fund recently estimated the benefits to control across 18 emerging markets. Constructing a measure of the control premium, which is the premium paid in the market when a controlling block of shares was sold, they found that it was 19 percent in emerging markets relative to 6 percent in 20 mature markets. IMF, "Global financial stability report, September 2005."

The high degree of control of shares by corporate insiders has also enabled scandals of price manipulation and other types of self-dealing among India's listed companies. These scandals were more prevalent in the 1990s than since 2000. Still, in January 2006, SEBI fined several banks for their role in allowing corporate insiders to buy shares reserved for retail investors.¹⁵

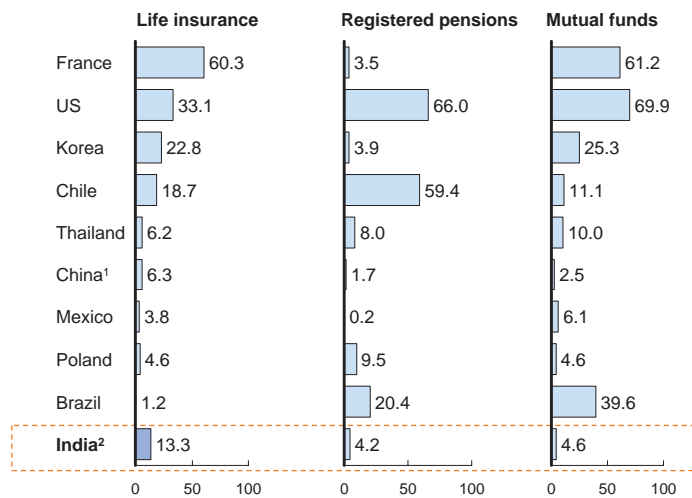
Lack of institutional investors

The second barrier holding back further development of India's equity markets is the lack of domestic institutional investors. Penetration rates for India's pension funds, mutual funds, and insurance are low relative to international benchmarks and even to other emerging markets (Exhibit 2.23).

Exhibit 2.23

DOMESTIC INSTITUTIONAL INVESTORS ARE UNDERDEVELOPED IN INDIA

Total assets as percent of GDP, 2005



¹ 2004 is the latest available data for all assets in China and life insurance in India

² Includes only provident funds; March 2005 latest available insurance data for India

Source: Financial institution regulators, industry groups, and central banks of respective countries

Mutual funds, although still very small, have enjoyed rapid growth recently. In 1993, the mutual fund market was opened to private players, including foreign companies, to provide competition to the former monopoly fund, Unit Trust of India. Since then, UTI's market share has fallen to 14 percent, and the mutual fund market has grown at approximately 10 percent annually. Half of domestic fund providers now have ties with foreign companies, such as JP Morgan, Fidelity, and Standard Chartered. Over the past year, although mutual funds assets have

¹⁵ "India's stockmarket scandals," The Economist, January 26, 2006.

jumped to \$48 billion, they still amount to around 5 percent of GDP, compared to roughly 25 percent in South Korea and 40 percent in Brazil. The lack of a deep mutual fund market has limited the ability of households to easily diversify away from fixed-income assets and made it more difficult for the economy to allocate resources to the most productive uses.

Reforms to date of the insurance industry have prompted less change. Although the market was opened to private companies in 2000, the state-owned Life Insurance Corporation of India (LIC) still holds nearly 80 percent market share. Moreover, government restrictions on the capital allocation by these institutions have prevented them from being a force in either the equity or corporate bond markets. Like the SLR for the banks, the government mandates that life insurance companies must invest 50 percent of their assets in government or other approved securities, and an additional 15 percent must be invested in infrastructure and social sectors. Nonlife companies must invest 30 percent of their assets in government or other approved securities, and an additional 10 percent must be invested in infrastructure and social sectors. These restrictions hold down earnings on their assets and thus limit their ability to create attractive financial products for consumers. Regulations on the distribution of insurance through agents has further limited penetration among households. As a result, the life insurance market is only 13 percent of GDP, and 80 percent of the population is without any insurance coverage (life, health, or other).

Provident and pension funds also have limited penetration, covering just 13 percent of the workforce in the organized sector. Like banks and other financial intermediaries, they are tightly regulated. Nearly all pension schemes are run by the Employee's Provident Fund Organization (EPFO), a public sector organization managed by the Ministry of Labor. Provident funds face restrictions similar to those that banks and insurance companies face on their asset holdings. The EPFO regulates provident fund investments that are managed either by EPFO or by employers under guidelines set by the EPFO. The impact of the current regulations is that 90 percent of these funds are invested in government securities.

Lack of domestic institutional investors has meant that India's retail investors dominate equity trading. Despite owning only 17 percent of shares, retail investors account for an estimated 85 percent of trading volume. Given the high level of turnover, Indian households view the equity market as something of a gambling

opportunity rather than a source of long-term gains. Retail investors' predominance also leaves the market vulnerable to the actions of foreign investors, whose movements are immediately followed by Indian retail investors.

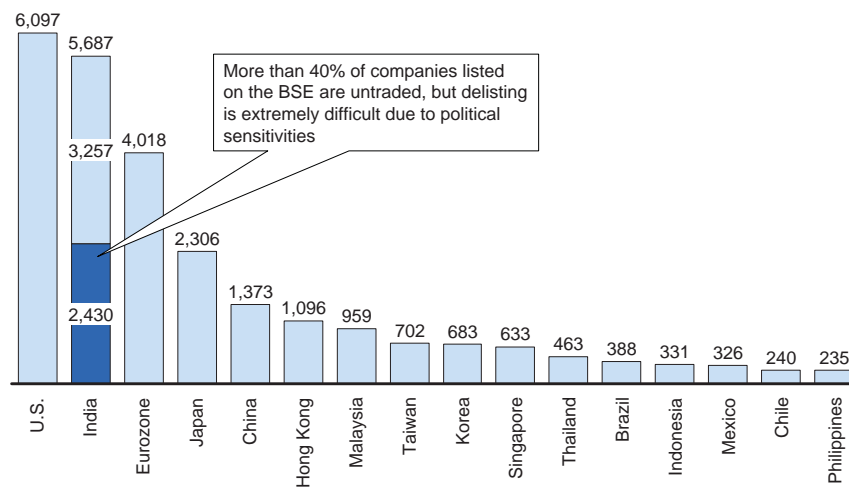
Many untraded companies should be delisted

The final weakness of India's equity markets is that there are still many untraded companies listed on the Bombay Stock Exchange. Although India has the second-highest number of listed companies, more than 40 percent of these are untraded (Exhibit 2.24). Most of these companies were listed during the 1990s when the BSE allowed many small, unproven companies to gain access to the public equity markets. Despite important political challenges associated with removing these companies from its exchange, it is important that the BSE delist these companies to provide increased market clarity and improve liquidity. For most companies on the BSE, the impact cost is very high, indicating very low liquidity as compared to the top companies and to the exchanges in other countries (Exhibit 2.25).

Exhibit 2.24

INDIA HAS THE SECOND HIGHEST NUMBER OF LISTED COMPANIES IN THE WORLD, BUT MANY ARE NOT TRADED

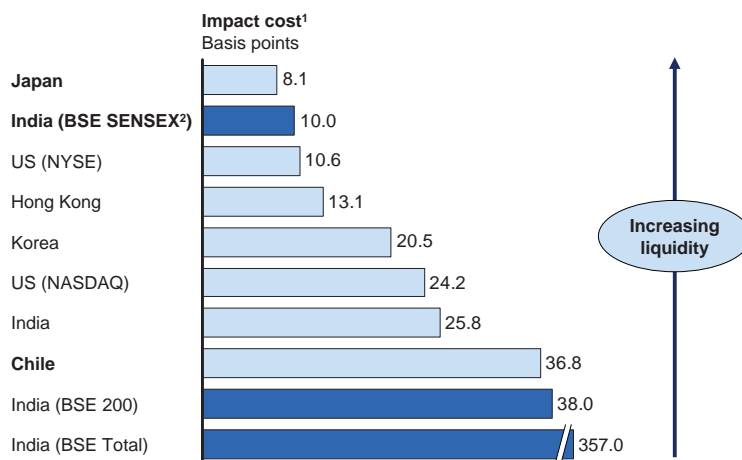
2004



Source: World Federation of Stock Exchanges; McKinsey Global Institute analysis

Exhibit 2.25

EQUITY MARKET LIQUIDITY IS ROBUST FOR SENSEX FIRMS, BUT LOW FOR OTHER ISSUERS



¹ Impact cost (as measured by the BSE) is the percentage price movement caused by an order size of Rs. 5 million from the average of the best bid and other price. It serves as a measure of liquidity. Countries outside India, estimates from Elkins McSherry, 2002; BSE measures, 2004

² SENSEX is an index of the thirty most actively traded listings on the Bombay Stock Exchange

Source: BSE; Elkins McSherry; McKinsey Global Institute analysis

CORPORATE AND GOVERNMENT BOND MARKETS

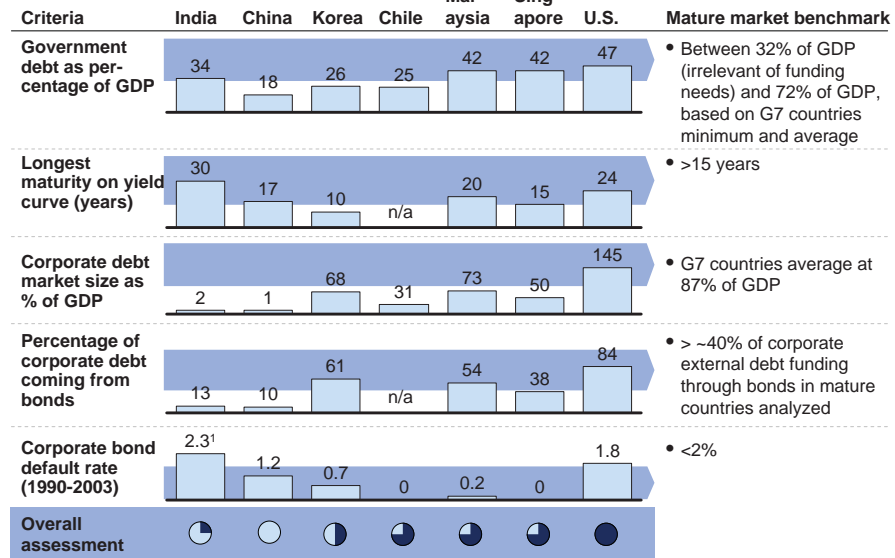
In mature economies, the bond market is an important channel for providing the largest companies with long-term funding options at lower cost than banks can offer. Because bond prices adjust continuously, they also provide information about the company's performance to investors and market discipline to management. They create competition for banks and put pressure on them to lend to their natural customers, small businesses and consumers.

For a corporate bond market to develop, a government bond market is necessary to establish a yield curve. To fund its persistent fiscal deficit, India's government bond market is quite large. At 37 percent of GDP at the end of 2004, the size of the government bond market is on par with that of mature financial systems (Exhibit 2.26). The Clearing Corporation of India Ltd. (CCIL) was established in 1999 and now handles clearing and settlement. A negotiated deal system was introduced that has recently migrated to an electronic limit order book like the NSE. There are regularly scheduled auctions, instruments that span the maturity spectrum (up to 30 years), and a liquid secondary market. Overall reforms have been successful in improving and establishing a yield curve (Exhibit 2.27). Given that 75 percent of government bonds are held by institutions required to do so, however, the value of this yield curve in pricing corporate securities is unclear.

Exhibit 2.26

BOND MARKET BENCHMARKS

2004



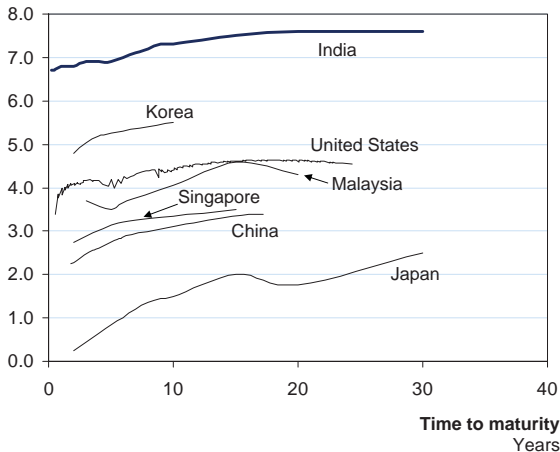
¹ 2000-2004

Source: GFS; Moody's; CRISIL; local central banks; Asia Development Bank; McKinsey Global Institute analysis

Exhibit 2.27

YIELD CURVE ON GOVERNMENT OF INDIA DEBT

Government bonds¹ yield curves for a selection of countries
Percent per year; January, 2006



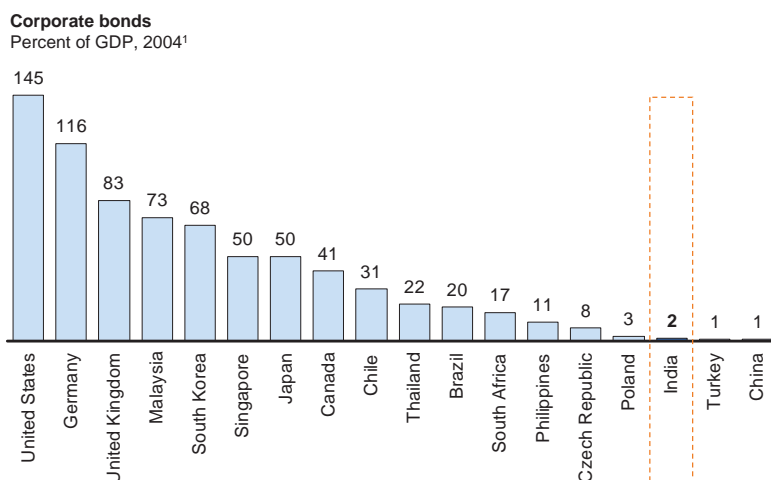
¹ Local currency denominated

Source: China Government Securities Depository Trust & Clearing CO; Valubond; Reuters; Bloomberg; McKinsey Global Institute analysis

India's corporate bond market is very small. Benchmarking it against that of other countries shows that it is the weakest part of India's financial system. India's corporate bond market is just 2 percent of GDP, compared to 50 percent in Singapore, 68 percent in South Korea, and 145 percent in the United States (Exhibit 2.28). Moreover, India's corporate debt market has not grown larger relative to GDP since liberalization of the financial markets began in 1991.

Exhibit 2.28

COMPARISON OF CORPORATE BOND MARKET SIZE ACROSS COUNTRIES



¹ India as of March, 2005; If bonds issued by development banks were included, China's corporate bond market would be 11% of GDP

Source: McKinsey Global Institute Global Financial Stock Database

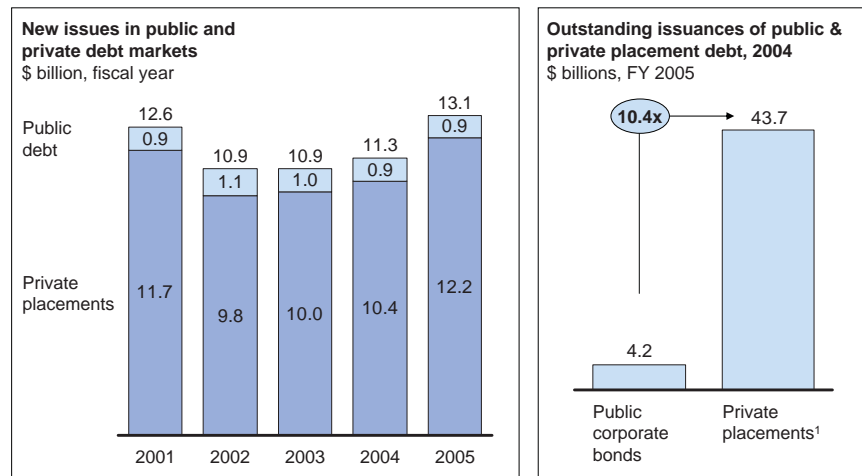
The main obstacles to corporate bond market development in India are excessive government regulations that make it difficult for companies to issue bonds, and lack of demand for them from institutional investors. Lengthy up-front disclosure and registration procedures, stringent ongoing disclosure requirements, and high issuance costs have limited corporate interest in issuing bonds. Meanwhile, the small size and restrictions on asset holdings of domestic institutional investors has meant that there is little demand for the instruments. (Retail investors almost never buy bonds directly in any country, because they are usually traded over the counter and thus difficult for individual investors to access.)

The large volumes of private placements and international issues of bonds are evidence of latent demand for debt among Indian companies. In 2004, there was approximately \$43.7 billion in privately placed debt outstanding—ten

times the volume of outstanding corporate bonds (Exhibit 2.29).¹⁶ In contrast to publicly traded bonds, private placements had no information disclosure requirements until recently, have lower issuance costs, and offer more tailored bond contracts. Moreover, commercial banks have been eager to buy private placements from companies as a substitute for direct lending. This is because until the end of 2003, when SEBI changed regulations, private placements were not counted as loans, and so they didn't require an increase in priority sector lending. In addition, banks could rely on the credit rating of the paper and not have to perform lengthy credit assessments themselves. Moreover, defaults would not be counted as nonperforming loans. At the end of 2003, RBI and SEBI tightened regulations considerably, but continued demand for private placements indicates that flexibility and cost of issuance still make them attractive to both issuers and investors.¹⁷ Still, even adding private placements to the publicly placed bonds outstanding in India leaves total corporate debt below 10 percent of GDP, quite low in comparison to other countries.

Exhibit 2.29

PRIVATE PLACEMENT DEBT IS TEN TIMES AS LARGE AS PUBLICLY TRADED BONDS



¹ Outstanding stock Estimated based on a four year moving average of issuances
Source: NSE (ISMR), Interviews, McKinsey Global Institute analysis

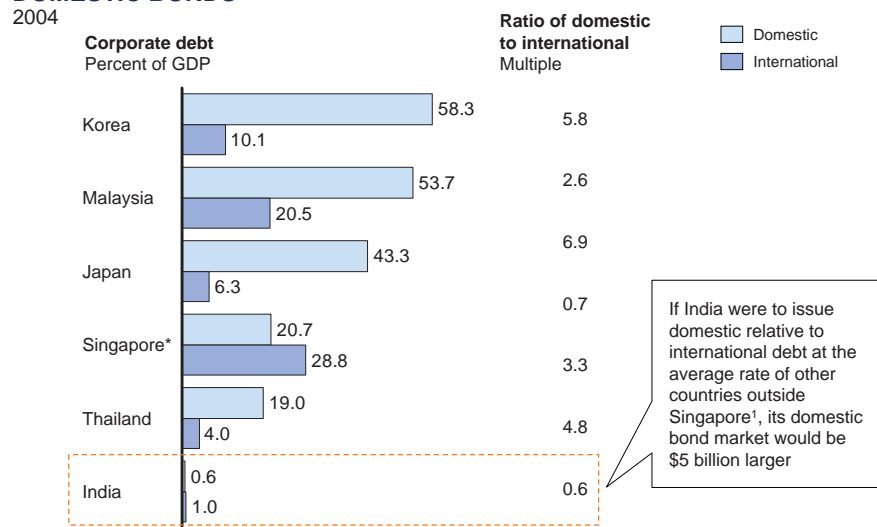
¹⁶ Financial institutions (mainly development banks) account for nearly 60 percent of private placements.

¹⁷ Economist Intelligence Unit, 2005.

The largest Indian companies have also turned to the international debt markets to raise capital. At the end of 2004, Indian companies had just \$4.2 billion of domestic bonds outstanding—but \$6.7 billion of international bonds. Unless these companies have foreign currency revenues, issuing international debt brings exchange rate risk along with additional costs. Outside of Singapore (which is a major trading and financial hub), India is the only comparable Asian economy that issues more debt externally than internally. If India were to issue domestic bonds at the same rate relative to international bonds as the other countries outside of Singapore, its corporate bond market would be \$5 billion larger (Exhibit 2.30).

Exhibit 2.30

INDIA HAS MORE INTERNATIONAL CORPORATE BONDS THAN DOMESTIC BONDS



PAYMENTS SYSTEM

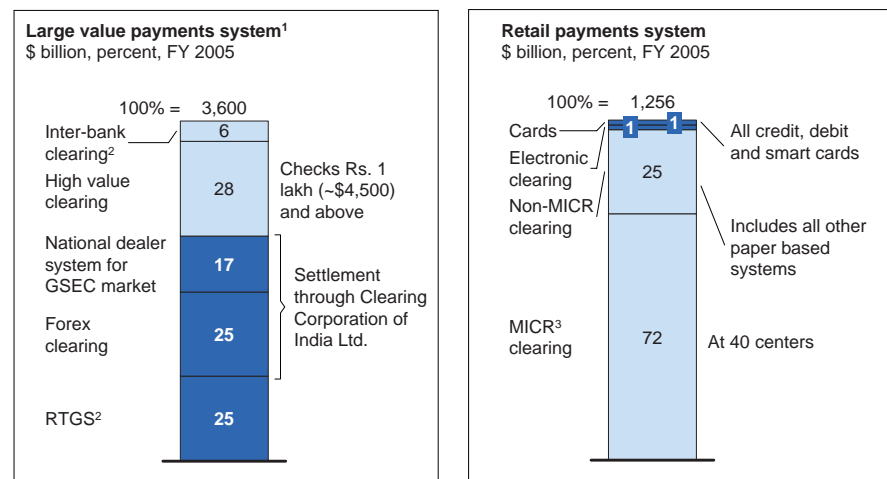
Despite efforts by the RBI to develop a modern payments system,¹⁸ there are still a diverse set of payments systems functioning in India, ranging from paper-based systems, where instruments are exchanged physically and transactions netted out manually, to sophisticated electronic systems that offer real-time settlement.

18 RBI, 2005. *Payments Systems in India: Vision 2005-08*.

The most important successes have been in the handling of large-value transactions, more than 70 percent of which are now handled electronically (Exhibit 2.31). An efficient and secure system for large-value payments is particularly important for the stability of the financial system. Large-value payments such as interbank, foreign exchange, and security markets transactions typically have large numbers of interlocking claims among the participants. Any breakdown in the settlement process can create systemic-level risk, particularly if the breakdown is in the banking system. In March 2004, India introduced a Real Time Gross Settlement (RTGS) system for interbank transactions. Settling in real time eliminates the inefficiencies and risk in the paper-based deferred-settlement system that existed previously. Banks with sufficient electronic infrastructure have also been able to use the system for customer transactions. Although the value of RTGS transactions has increased ten times since it was introduced, a major challenge that remains is the expansion of the RTGS system beyond the 15 major centers in which it now operates.

Exhibit 2.31

INDIA HAS MADE SIGNIFICANT PROGRESS IN ITS LARGE VALUE PAYMENT SYSTEM BUT RETAIL STILL LAGS



1 Considered to be the "systemically important payment systems"
 2 Paper-based inter-bank clearing closed November, 2004; replaced by the Real Time Gross Settlement System (RTGS) which became operational March 2004
 3 Magnetic Ink Character Recognition

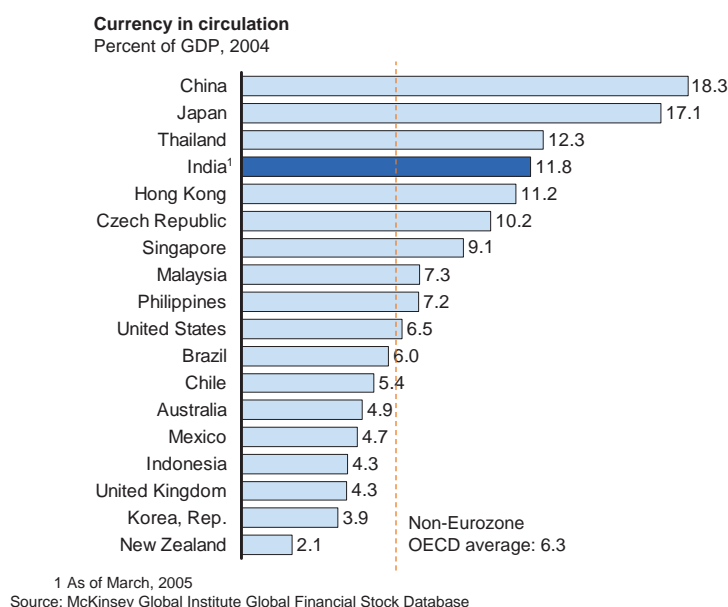
Source: RBI

In contrast, the retail payment system is still almost completely cash-based. Only 3 percent of retail transactions handled by the payments system are done through electronic clearing or credit, debit, and smart cards (see Exhibit 2.31). Moreover, it is estimated that more than 90 percent of consumer spending is

handled on a cash basis and therefore never enters the payments system.¹⁹ In India, where more than half of economic output is produced through mostly small-scale agriculture and some 44 million household businesses, this outcome might be expected. The dependence on cash can be seen clearly in India's currency in circulation, which is one of the highest in the world (Exhibit 2.32). Before it can capture an increasing volume of retail transactions, India must integrate the semiurban and rural areas into the electronic clearing systems.

Exhibit 2.32

CURRENCY IN CIRCULATION IS VERY HIGH IN INDIA



INTERNATIONAL CAPITAL FLOWS

In the early 1990s India began to liberalize restrictions on foreign capital flows, making the rupee convertible on the current account (i.e., for trade purposes) and allowing in some foreign direct investment and portfolio inflows in the equity market. (Foreign capital inflows into the corporate bond market are still capped at \$500 million per foreign institutional investor.)

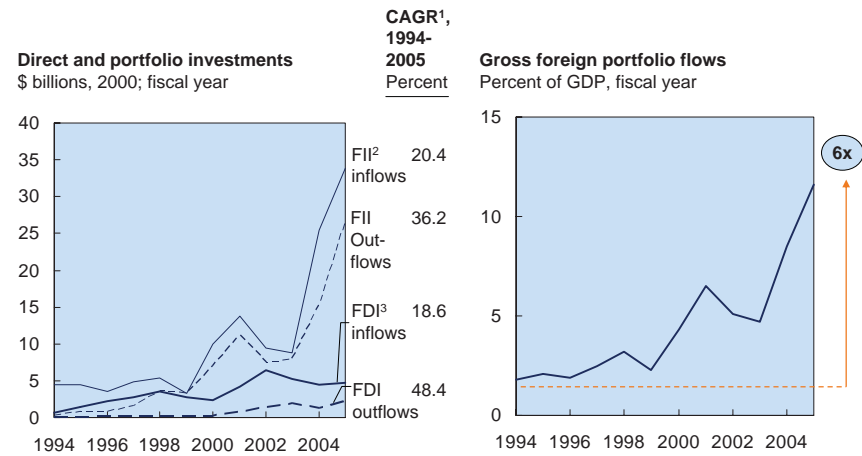
Since then, portfolio inflows from foreign institutional investors have increased dramatically, rising sixfold between 1993 and 2004. On average, they have been more than four times as large as foreign direct investment flows (Exhibit

¹⁹ "Emerging India: Transition to a cashless economy," NCAER / VISA, 2005.

2.33). In 2004, India received \$8.7 billion of net inflows into the equity market and bond markets, and \$3 billion of net foreign direct investment. The reason for less foreign direct investment is that it remains heavily restricted in India. In the banking sector, for instance, although the official limit on foreign ownership is 74 percent, no single foreign bank can have more than a 5 percent stake in an Indian one. In insurance, foreign ownership limits are 26 percent. In some sectors, including retail, housing and real estate, and agriculture, foreign direct investment is still prohibited.

Exhibit 2.33

RAPID GROWTH IN PORTFOLIO INVESTMENT INFLOWS



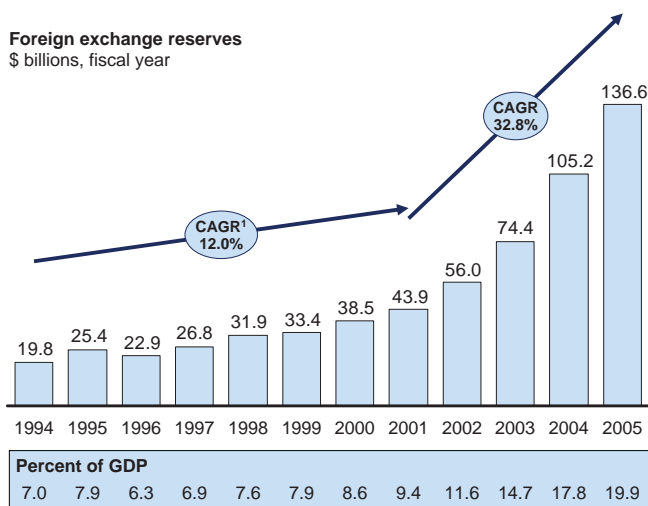
1 Compound annual growth rate.
 2 Foreign institutional investors.
 3 Foreign direct investment.
 Source: RBI, CSO, Global insight; McKinsey Global Institute analysis

The RBI has recently given a new mandate to a committee that first developed recommendations on how India should transition to full capital account convertibility in 1997. At the time, these recommendations were shelved in the wake of the Asian crisis. The committee is set to issue its report in July 2006. Although India has made significant progress toward many of the preconditions for full convertibility set out in the 1997 report (e.g., sufficient stocks of foreign exchange reserves), others remain unmet (e.g., still-large fiscal deficits). Thus the committee is likely to develop a revised set of preconditions and a transition time path for convertibility.

An important part of India's current capital-control regime is its policy of maintaining a "crawling peg" to the US dollar. Although RBI's official policy is that the exchange rate is "market determined," in practice, this means that RBI intervenes heavily in the foreign exchange market to prevent the rupee exchange rate from moving significantly relative to the US dollar.²⁰ This policy benefits export-oriented businesses, because it keeps the price of Indian goods low on international markets, and domestic industries, because it helps shield them from import competition. But to achieve this goal, the RBI is rapidly accumulating foreign exchange reserves as it buys up incoming capital flows. Foreign exchange reserves have grown 33 percent annually since 2000 and now top \$130 billion (Exhibit 2.34).

Exhibit 2.34

GOVERNMENT FOREIGN EXCHANGE RESERVES HAVE GROWN RAPIDLY



Source: RBI; CSO; McKinsey Global Institute analysis

This exchange-rate policy has the potential to rapidly expand domestic credit because RBI must sell rupees to buy up the incoming foreign capital flows. Thus, another pillar of RBI's current capital market policy is to engage in active sterilization in the domestic market. This means that they have been selling

²⁰ Academic research is effectively unanimous that RBI is actively managing a crawling peg with the US dollar. See Shah and Patnaik, 2005; Patnaik, 2003.

government securities to “buy back” the rupees they are introducing into the market when they purchase the incoming foreign exchange, thereby controlling the expansion of domestic credit. RBI is able to avoid the “impossible trinity” because of restrictions on the capital account. This exchange rate and sterilization strategy will no longer be sustainable if India achieves full capital account convertibility.

CONCLUSION

India’s financial system is widely perceived to be high performing, particularly for an emerging market. But a closer look reveals significant weaknesses. India’s level of financial depth, while high relative to other countries with similar GDP, is significantly lower than the other fast-growing Asian nations, indicating a far lower level of financial intermediation in the economy. Moreover, its financial institutions are to some extent failing to play the roles they should. The banking sector has very low levels of lending, due mainly to state ownership of banks and pervasive regulations governing the asset holdings of financial institutions and the allocation of credit in the economy, interest rates that are quite inflexible, low bank penetration, and little consumer credit. The equity market performs well for large companies but is held back by a high concentration of share ownership and by India’s lack of domestic institutional investors. Bond market development has been suppressed largely as a result of government involvement in these markets, and so large companies borrow from banks instead. The result, as we will see in the next chapter, is that India’s financial system fails to mobilize a good deal of the country’s savings, and then it inefficiently allocates the capital it does raise.

3. Effect of Financial System Performance on India's Economy

A closer examination of the flow of funds in India reveals that, despite the progress made since 1991, the financial system fails to capture much of the country's domestic savings. It then channels the majority of funding to the least productive parts of the economy—India's government, public sector enterprises, agriculture, and rural households—instead of the real growth engine of the economy: India's formidable private corporate sector.

The government's large role in the financial system explains this skewed distribution of credit. India's government has assumed this dominant role to direct funds toward its welfare objectives, finance the capital expenditures of state-owned enterprises, and cover its own persistently large administrative deficit. But the government's tight grip on the financial system is also curbing India's rate of wealth creation. Reforms to lessen government influence on the financial system will result in more efficient use of savings and faster growth.

ALLOCATING CAPITAL MORE EFFICIENTLY

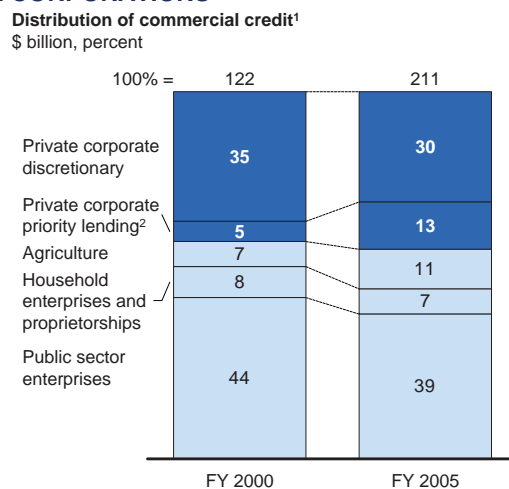
India has a much-celebrated private corporate sector that has produced some world-class companies and made inroads in global R&D, IT, and business-process outsourcing. But rather than fostering growth of India's entrepreneurs, the financial system channels the majority of funding to less productive parts of the economy—the government, state-owned enterprises, tiny household businesses, and agriculture.

India's private corporate sector gets little funding from the financial system

India's private corporations receive just 43 percent of credit available from banks, the bond market, and India's government,¹ a level that has remained virtually unchanged over the past five years (Exhibit 3.1). Nearly one-quarter is through directed lending programs to priority sectors in categories such as small retailers and other small businesses. The share of priority lending to the private corporate sector has increased over time, reflecting the success of banks in lobbying regulators to expand the definition of priority sectors, and a shift in goals of the government as it tries to support new emerging sectors. State-owned enterprises receive 39 percent of total commercial credit from the financial system, while directed lending policies ensure that agriculture receives 11 percent and household proprietorships and partnerships (called small-scale industry) receive 7 percent.

Exhibit 3.1

LESS THAN HALF OF COMMERCIAL CREDIT GOES TO PRIVATE CORPORATIONS



Note: Numbers may not add due to rounding

¹ Gross bank credit excluding financial companies; includes corporate bonds and private placements, as well as loans and investments from the government to public sector enterprises.

² Estimate of lending to small corporations equals "other" priority sector lending outside of agriculture and Small Scale Industry

Source: CSO; RBI; India Public Enterprise Survey; McKinsey Global Institute analysis

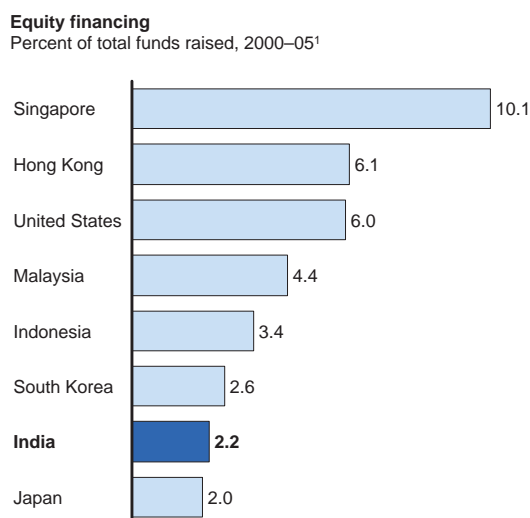
India's equity market is geared more toward private companies: 70 percent of equity market capitalization is in private companies, while 30 percent is in state-owned ones. Although equity markets are important for creating a market for corporate

1 Commercial credit includes lending to nonfinancial enterprises by banks, outstanding corporate bonds and private placements, and loans to and investments in public sector enterprises by the central and state government.

control, adding market oversight to companies, and providing funding for start-ups and major business expansions, new equity is a very small source of new funding in any economy compared to debt. Over the past five years, it accounted for only 2 percent of new funds raised by Indian companies (Exhibit 3.2).

Exhibit 3.2

EQUITY PLAYS A LIMITED ROLE IN NEW FINANCING



¹ Based on sample of 160 companies per country outside of United States. Companies were ranked by gross sales, and 40 companies from each quartile were taken as the sample. US sample includes all publicly listed companies with revenue greater than \$500 million.

Source: Bloomberg; McKinsey Global Institute analysis

This overall allocation of capital impedes growth in India's economy. Public sector enterprises operate with just 54 percent of the labor productivity of India's private corporate sector, while household enterprises are just one-tenth as productive. Labor productivity is also growing at a much slower rate outside of the private sector (Exhibit 3.3). Their investment efficiency is lower as well. To produce \$1.00 of additional output, India's private corporations require \$2.80 of investment. But household businesses require \$3.90, and state-owned enterprises require \$6.80 (Exhibit 3.4).

This gap in productivity between private companies and state-owned ones is not due to differences in the industries in which they are found. MGI's analysis shows that public sector enterprises have lower productivity than private companies across a variety of sectors, including retail banking; dairy processing; and power generation, transmission, and distribution (Exhibit 3.5). Likewise, household proprietorships have lower productivity than the private sector within industries (Exhibit 3.6).

Exhibit 3.3

LABOR PRODUCTIVITY OF PRIVATE CORPORATIONS IS NEARLY TWICE THAT OF STATE-OWNED ONES

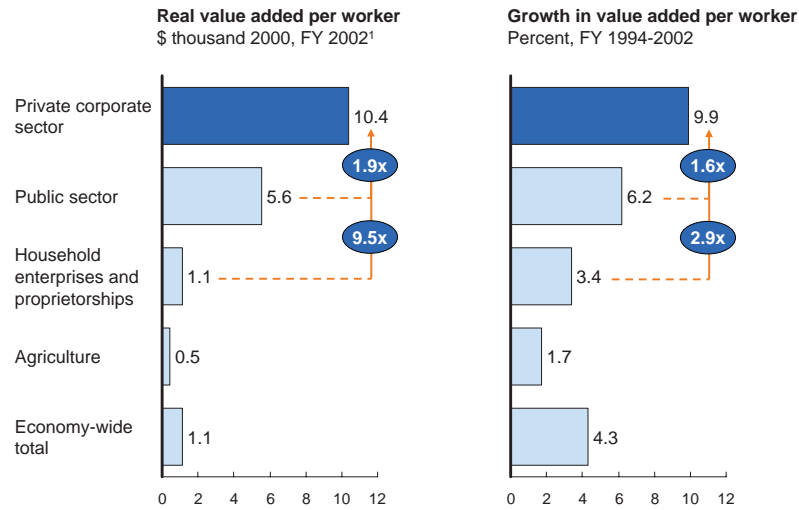
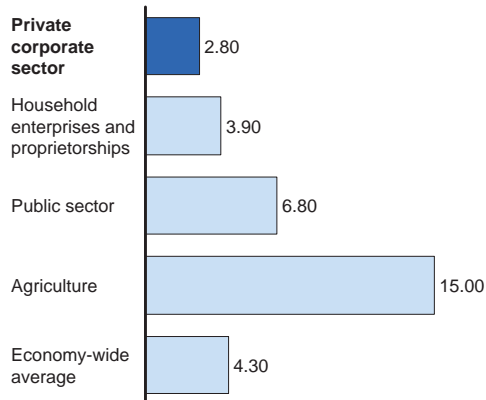


Exhibit 3.4

INDIA'S PRIVATE CORPORATE SECTOR HAS THE HIGHEST INVESTMENT EFFICIENCY

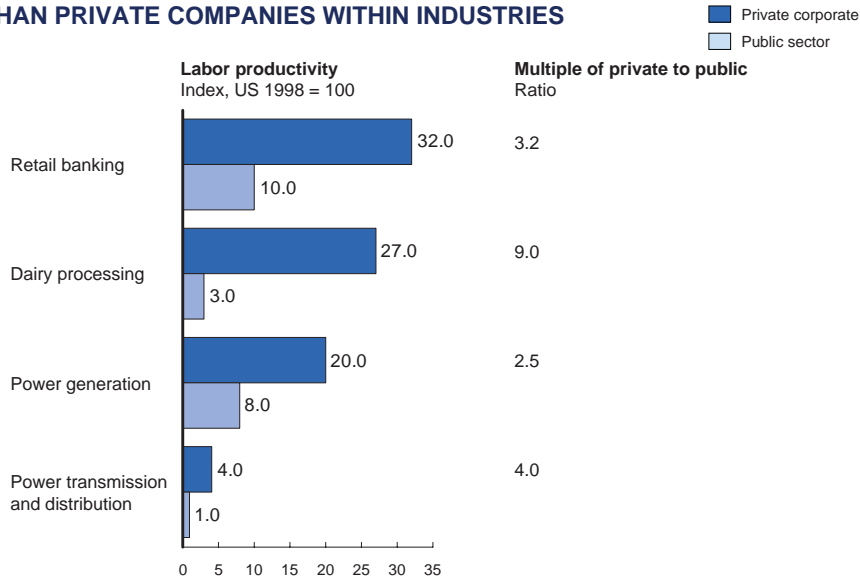
Amount of investment needed to generate \$1 of additional output¹
Dollars, FY 2000-2005



¹ The incremental capital output ratio is defined as the sum of gross investment divided by the total change in GDP over the period. See Technical Notes for a discussion.
Source: CSO; RBI; McKinsey Global Institute analysis

Exhibit 3.5

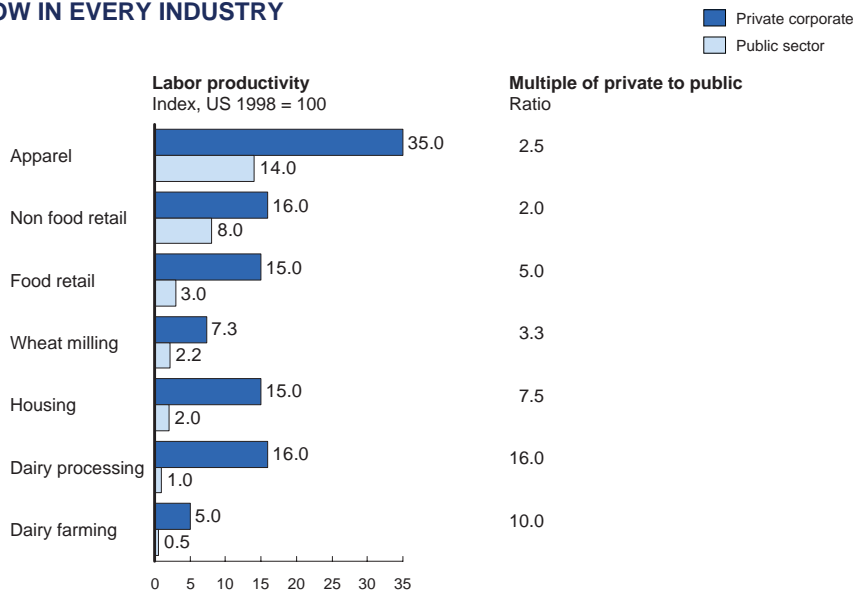
PRODUCTIVITY OF PUBLIC SECTOR ENTERPRISES IS LOWER THAN PRIVATE COMPANIES WITHIN INDUSTRIES



Source: McKinsey Global Institute, *India: The Growth Imperative, 2001*

Exhibit 3.6

LABOR PRODUCTIVITY OF HOUSEHOLD PROPRIETORSHIPS IS VERY LOW IN EVERY INDUSTRY



Source: McKinsey Global Institute, *India: The Growth Imperative, 2001*

Government's role in the financial sector explains misallocation of capital

The main reason for this pattern of lending is the large role India's government plays in the financial sector. As discussed in Chapter 2, regulations on banks and other intermediaries dictate how they allocate capital and serve to channel much of it to the government itself and to government-designated investments.

Banks, which account for three-quarters of total commercial credit, are required to hold 25 percent of their assets in government bonds, reducing the amount they can lend. Directed lending regulations then require that 36 percent of loans go to priority sectors. This not only diverts credit from the more productive private companies but also lowers overall lending, because banks must make unprofitable loans to priority sectors with higher default rates whenever they expand lending.

Similar requirements have been imposed on India's insurance companies and provident funds (essentially pension funds). In other countries, these financial intermediaries invest in corporate debt securities and equities as well as government bonds. But in India, life insurance companies are required to invest 50 percent of their assets in government bonds and an additional 15 percent in infrastructure and social sectors. Other insurance companies must invest 30 percent of their assets in government bonds and an additional 15 percent in infrastructure and social sectors. Restrictions on provident funds mean that 90 percent of their assets are in government bonds and related securities.

In addition, India's government borrows directly from the regulated "small savings accounts" offered by banks and post offices. These accounts offer above-market rates of return to savers, but they require the government to borrow even more when the liability comes due.²

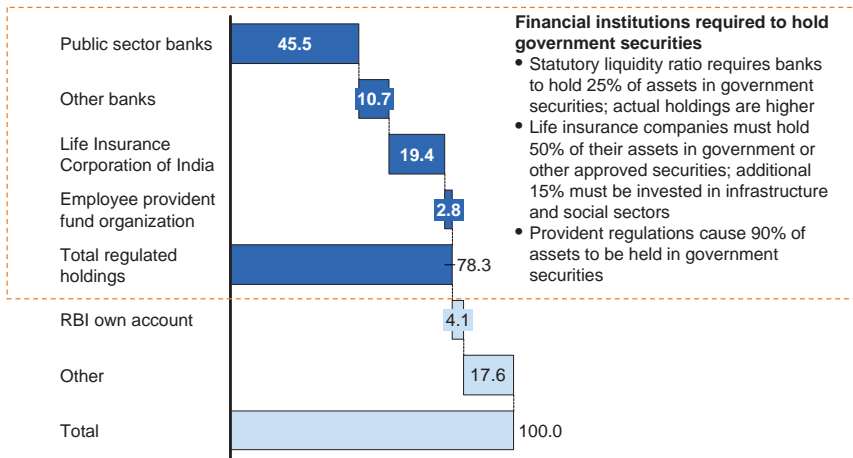
These regulations have enabled India's public sector to borrow the money it needs to fund its persistently large budget deficits, which in total have averaged around 10 percent of GDP (see sidebar, "Understanding India's Public Finances"). They allow the government to raise the vast amounts of debt required by creating a huge captive pool of demand for government bonds. Indeed, more than 75 percent of Indian government securities are held by institutions required to do so (Exhibit 3.7).

² Many post office savings schemes have been offering 8.0 percent returns since 2003, when inflation was 5.4 percent and government securities with five- to ten-year maturities were getting between 4.9 percent and 5.9 percent on the secondary market.

Exhibit 3.7

MORE THAN 75 PERCENT OF GOVERNMENT SECURITIES ARE HELD BY FINANCIAL INSTITUTIONS THAT ARE REQUIRED TO HOLD THEM

Ownership of central government securities
100% = \$222 billion, FY 2004¹



¹ Latest available data.

Source: RBI; McKinsey Global Institute analysis

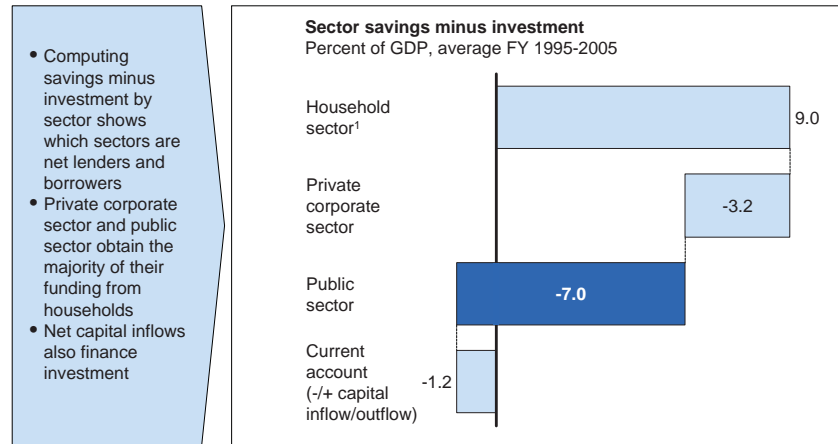
The impact of the government's policies can also be demonstrated by considering the allocation of national savings. In any year, national savings plus net capital inflows from abroad are available to fund domestic investment. Households are able to fund their own investment and still have a surplus of savings that has averaged 9 percent of GDP over the past ten years. Capital inflows have also been a net source of funds for India's economy. The public sector has absorbed 70 percent of the surplus household savings and capital inflows to fund its investment. Only 30 percent of these funds went to private corporations (Exhibit 3.8).

Weak bank operations and the tiny corporate bond market also contribute to the dearth of lending to private companies, particularly smaller ones. Banks have been more than willing to lend to India's very large, creditworthy companies—including many public sector enterprises that are perceived to have government backing—but there has not been enough competition to spur public sector banks into developing the skilled loan officers or risk-management systems they need to price smaller, riskier loans accurately. In mature markets, large companies get the majority of debt financing from public bond markets, which provide lower-cost funding than banks. But without a viable corporate bond market, in India the largest companies instead turn to banks, squeezing out funding for banks' natural customers, small businesses and consumers. These, in turn, are obliged either to

borrow from family and friends or resort to India's estimated \$85 billion informal finance market, where interest rates are much higher (Exhibit 3.9).³

Exhibit 3.8

INDIA'S GOVERNMENT CONSUMES 70 PERCENT OF SAVINGS ESTIMATED

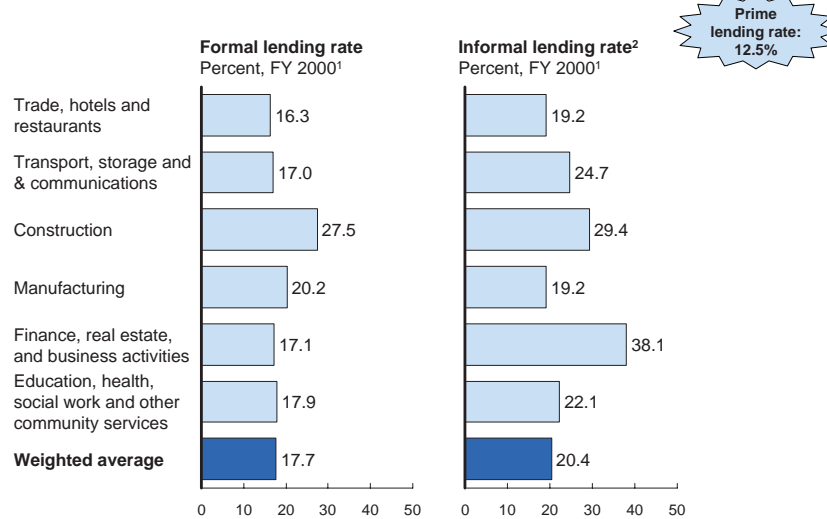


¹ To balance with the current account, we subtract all errors and omissions (E&O) between savings, investments, and capital flows from household savings (equivalently add it to household investment). Investment in valuables are added to E&O for the years 2000–2005. E&O average 1.4% of GDP over the period implying unadjusted household savings investment balance is 10.4% of GDP.

Source: CSO; McKinsey Global Institute analysis

Exhibit 3.9

INFORMAL LOANS CARRY HIGHER INTEREST RATES



¹ Based on sample of 197,637 unincorporated enterprises and proprietorships, which represents 2/3 of the nonagricultural unorganized sector.

² Informal sources include money lenders, business partners, friends/relatives, and others.

Source: NSS report no. 459: "Informal sector in India, 1999–2000—salient features"

³ See Technical Notes at the end of this report for how we calculated the size of India's informal lending market.

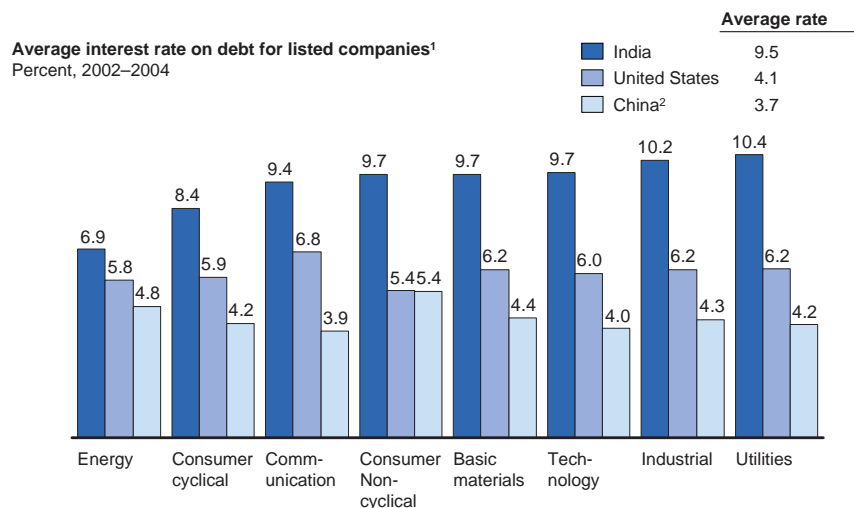
India's private corporations rely heavily on retained earnings

With 70 percent of the savings that go into the financial system being absorbed by the government and public sector enterprises, it is likely that at least some parts of India's private sector face credit constraints and that, overall, companies pay higher interest rates for debt than they otherwise would. Proving the existence of credit constraints is difficult, however. Several academic studies have used regression analysis to demonstrate that there is unmet demand for funds, particularly for small and medium-sized enterprises.⁴ Our analysis yields several findings that support this contention.

First, Indian companies pay significantly higher interest rates on debt than do companies in the United States or China. This is true in every sector of the economy⁵ (Exhibit 3.10).

Exhibit 3.10

COMPANIES IN INDIA PAY HIGH BORROWING RATES ACROSS SECTORS



¹ Top 700-800 non-financial companies based on sales. The cost of debt is interest expenses divided by total debt. Interest rates above 50% have been deleted. Total debt is not adjusted for pensions and leases.

² Interest rates in China are below the US due to regulatory restrictions

Source: Bloomberg; McKinsey Global Institute analysis

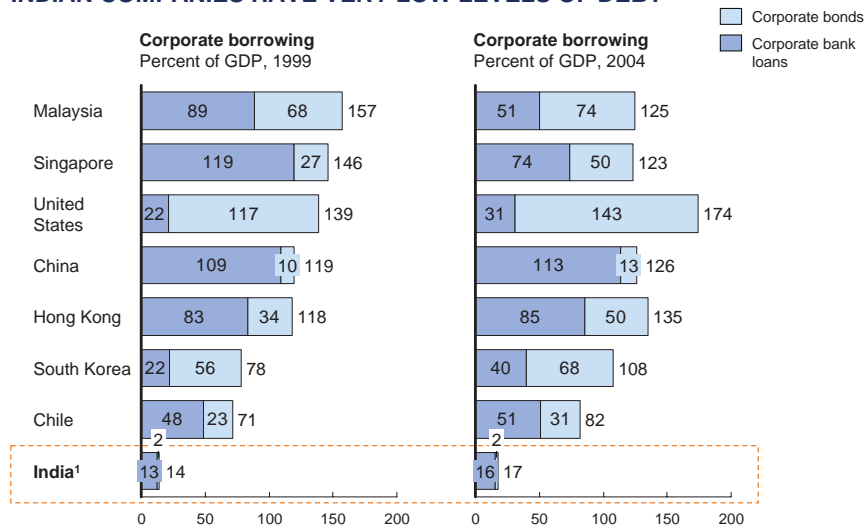
⁴ Abhijit V. Banerjee and Esther Duflo. 2004, "Do firms want to borrow more? Testing credit constraints using a directed lending program," MIT Mimeo; Love and Peria, 2005.

⁵ Chinese companies pay very little for debt because of interest rate regulations. For more detail, see The McKinsey Global Institute, Putting China's Capital to Work: The Value of Financial System Reform, May 2006, available for free at www.mckinsey.com/mgi.

Second, India's companies have very low levels of leverage compared to companies in other countries. Total corporate debt (corporate bonds and corporate loans) in India is less than 17 percent of GDP—compared to 125 percent in China and Malaysia, 108 percent in South Korea, and 174 percent in the United States (Exhibit 3.11). Leverage this low is inefficient, because it suggests that companies must hold onto their retained earnings to fund investment rather than distribute these funds to shareholders that may be able to put them to more productive use. Moreover, it weakens corporate governance and market oversight of companies. Debt has covenants that force companies to maintain adequate cash flow to cover interest payments, enabling better monitoring of company performance.⁶

Exhibit 3.11

INDIAN COMPANIES HAVE VERY LOW LEVELS OF DEBT



Note: Numbers may not add due to rounding
¹ as of March 2000 and 2005
Source: Central banks of respective countries; EIU; McKinsey Global Institute Global Financial Stock Database; McKinsey Global Institute analysis

Indian companies also rely more heavily on retained earnings as a source of funds than do companies in other countries. In every country, retained earnings provide a significant portion of funding for corporate investments.⁷ But India stands out as an outlier on this measure: 78 percent of new funds came from retained earnings for Indian companies between 2000 and 2005, compared to 59 percent in South Korea and 47 percent in the United States (Exhibit 3.12). An aversion to leverage is one possible explanation for low leverage and high use of retained earnings, but

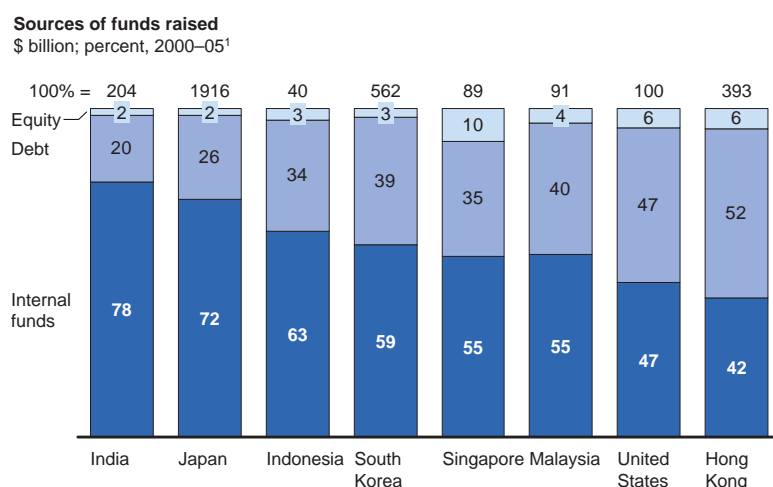
⁶ See “Beyond Irrelevance,” The Economist, February 11, 2006; Tirole, 2005.

⁷ See Technical Notes for how we calculate retained earnings.

there is also clear evidence of latent demand for more debt. Private placements of debt, for instance, are ten times the size of public corporate bond issues. International issues of corporate debt actually exceed domestic issues by 25 percent, despite the currency risk incurred. The preponderance of the evidence thus suggests that India's private sector is credit-constrained.

Exhibit 3.12

INDIAN FIRMS RELY HEAVILY ON RETAINED EARNINGS



¹ Based on sample of 160 companies per country outside of United States. Companies were ranked by gross sales, and 40 companies from each quartile were taken as the sample. US sample includes all listed companies with revenues exceeding \$500 million, 1995 to 2004.

Source: Bloomberg; McKinsey Global Institute analysis

Our interviews suggest that the very largest private companies in India do not face funding constraints. But this is not the case for small and medium-sized enterprises. Reliance on retained earnings and limited access to external borrowing constrains the ability of many small and mid-sized companies to fund investment and drive growth.⁸ Moreover, it allows companies that have cash to make investments, even if they are not the best opportunities in the economy. A more efficient system would have companies pay out earnings to shareholders and then intermediate those savings through the financial system to fund investments.

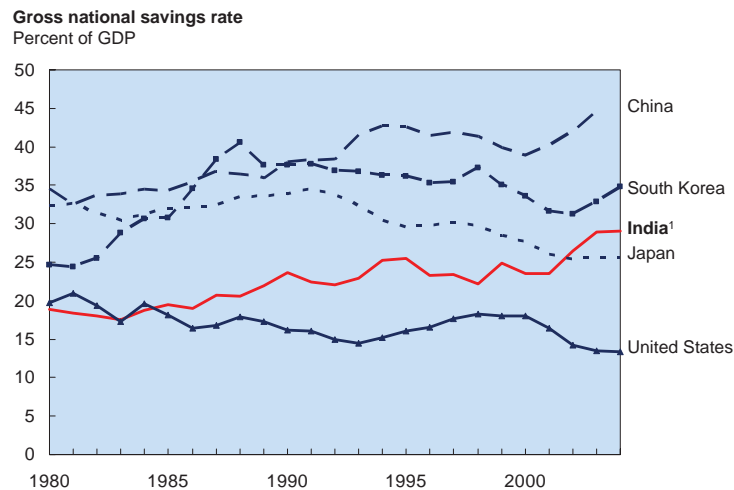
⁸ Abhijit V. Banerjee and Esther Duflo. 2004, "Do firms want to borrow more? Testing credit constraints using a directed lending program," MIT Mimeo; Love and Peria, 2005.

MOBILIZING MORE SAVINGS

Compared to China and other fast-growing Asian countries, India has a relatively modest pool of savings to fuel growth. At 29 percent of GDP, its savings rate is below the 30 percent or more found in other Asian economies (Exhibit 3.13). India's financial system, however, fails to capture much of the savings that it could.

Exhibit 3.13

INDIA'S NATIONAL SAVINGS RATE IS LOW RELATIVE TO OTHER ASIAN COUNTRIES



¹ Fiscal year basis

Source: RBI; CSO India; China Statistical Abstract; Bank of Korea; BEA; ERSI Japan; McKinsey Global Institute analysis

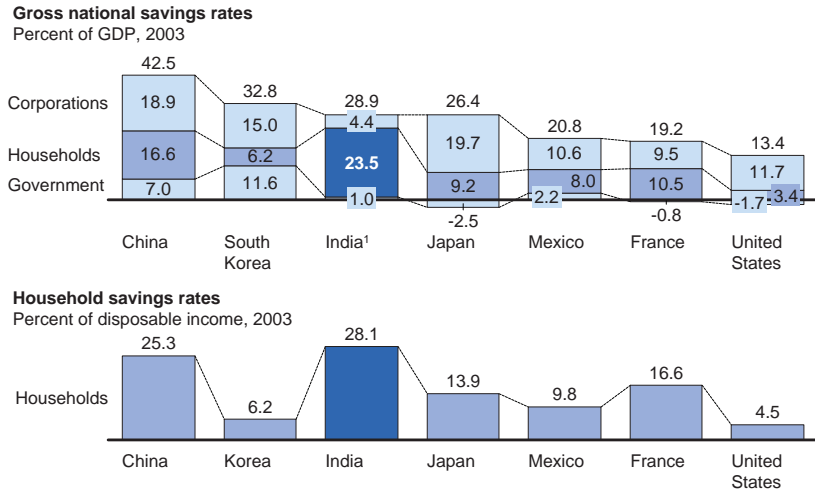
Investments in subsistence enterprises

Households are the main source of savings in India (Exhibit 3.14). At 28 percent of disposable income, their savings rate is higher than even Chinese households. But they invest just 47 percent of their savings into bank deposits and other financial assets (Exhibit 3.15). They invest the remainder in physical assets: 35 percent goes for housing and other buildings, while 18 percent is spent on machinery and equipment for household farming operations and tiny subsistence enterprises.

The household savings that is invested in machinery and equipment perpetuates a large but very low-productivity part of India's economy: the "unorganized" sector. This sector includes agriculture and some 44 million tiny household

Exhibit 3.14

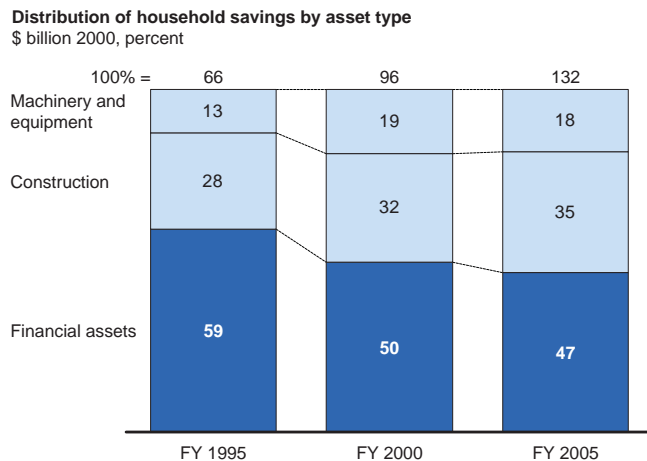
INDIAN HOUSEHOLDS HAVE A HIGH SAVINGS RATE



¹ As of March, 2004. Government savings in India includes public sector enterprises. In FY 2004, government administration was running a deficit of 3.6% of GDP, but public sector enterprises were running a 4.7% surplus.
Source: OECD; CSO-India; Bank of Korea; ESRI-Japan; BEA-US; INSEE-France; McKinsey Global Institute analysis

Exhibit 3.15

LESS THAN HALF OF HOUSEHOLD SAVINGS IS INVESTED IN FINANCIAL ASSETS



Note: Numbers may not add due to rounding
Source: CSO; McKinsey Global Institute analysis

businesses, 80 percent of which are run solely with household labor.⁹ Nonagricultural household enterprises account for 35 percent of GDP in India, while agriculture accounts for an additional 20 percent of the economy. In contrast, the approximate 17 million unincorporated sole proprietorships and partnerships in the United States account for less than 4 percent of total sales and an even smaller portion of gross capital formation.¹⁰ But in India, households account for 43 percent of gross capital formation.

Investments in tiny household businesses may be rational and even profitable from the view of the household, particularly given the dearth of wage jobs in rural areas and the very low productivity of Indian agriculture. But these enterprises are subscale and lack technology and business know-how. Their productivity levels are very low, and they require twice as much investment for every additional rupee of output as India's private companies (see Exhibits 3.3 and 3.4). India's economy as a whole would therefore grow faster and create more jobs if the savings invested in these enterprises were instead aggregated by the financial system and used to fund larger-scale, more productive businesses.

Annual gold purchases now top \$10 billion

Indian households also invest heavily in gold, arguably another form of nonfinancial saving, although the value of gold holdings is not included in calculations of savings.¹¹ They are the world's largest gold consumers, accounting for 20 percent of global purchases (Exhibit 3.16). Annual gold consumption in tons has tripled since 1990, and today Indians own roughly \$200 billion of the metal.¹² This is equal to nearly half the country's bank deposits and one-third of its current GDP. In 2005, Indians bought \$10 billion of gold, nearly two and one-half times the \$5.6 billion inflow of foreign direct investment (FDI) the country received in 2004 (the latest year for which data is available) and four and one-half times the net FDI flow of \$3 billion.

9 Household businesses are generally unincorporated enterprises, proprietorships, and partnerships. See Government of India: Ministry of Statistics and Program Implementation. Report No. 455. "Non-agricultural enterprises in the informal sector in India 1999–2000."

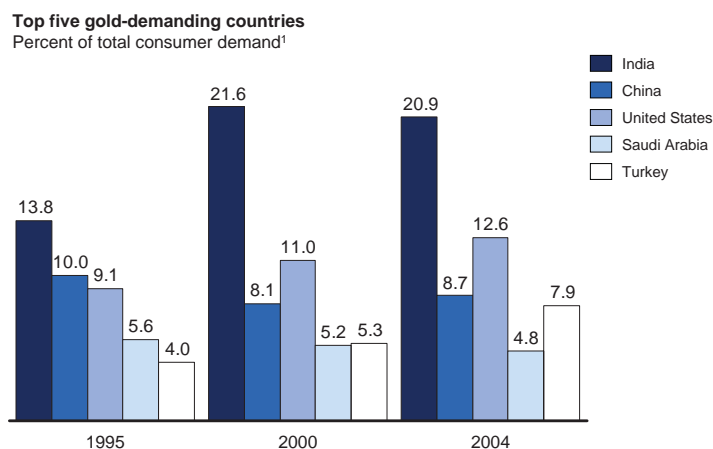
10 Figures on contributions to GDP are not available in the United States.

11 Gold purchases by households are treated as consumption in national accounts.

12 The World Gold Council estimates that Indian households hold between 10,000 and 15,000 tons of gold. At the 2005 price of \$444.45 per troy ounce, this gold is worth between \$143 billion and \$214 billion. Bhattacharya, 2002.

Exhibit 3.16

INDIA HOUSEHOLDS ARE THE LARGEST CONSUMERS OF GOLD



¹ Consumer demand includes jewelry and retail investment.
Source: World Gold Council; McKinsey Global Institute analysis

Gold purchases are made mostly for consumption and cultural reasons (three-quarters of gold is purchased in the form of jewelry) but also as a store of wealth and savings. Approximately 70 percent of gold purchases are made by rural households¹³, where bank penetration is much lower than in the urban areas. (There are approximately 0.8 bank accounts per household in urban areas and only 0.2 in rural areas, where nearly three-quarters of the households reside.) Even among households with bank accounts, however, gold gives financial security that is independent of the country's financial system. The anonymous nature of gold also means that it can be kept without being subject to tax and inheritance laws.

Gold was a good investment between 1970 and 1990, when returns far outperformed returns on bank deposits in India (by far the largest financial asset of Indian households), and again over the last year. Since 1990, gold has averaged worse returns than Indian bank deposits, yet gold purchases ramped up substantially (Exhibit 3.17).

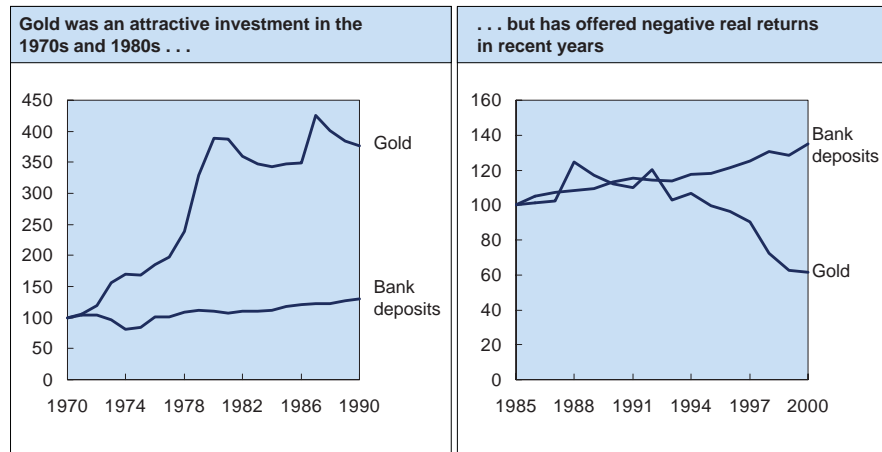
India's financial system thus has two clear opportunities to capture more of the nation's savings: by capturing some of the savings now spent on household

¹³ Ibid.

Exhibit 3.17

GOLD CONTINUES TO BE USED AS A SAVINGS VEHICLE DESPITE NEGATIVE RETURNS SINCE 1990

Index, adjusted for inflation



Source: Press Trust of India; Bombay Bullion Association; McKinsey Global Institute analysis

subsistence enterprises, and by attracting some of the money spent on gold. Doing so would create a larger pool of savings to fuel additional investment. These investments would generate more output than either gold (which produces none) or tiny businesses if reforms to India's financial system enabled it to allocate funding more effectively.

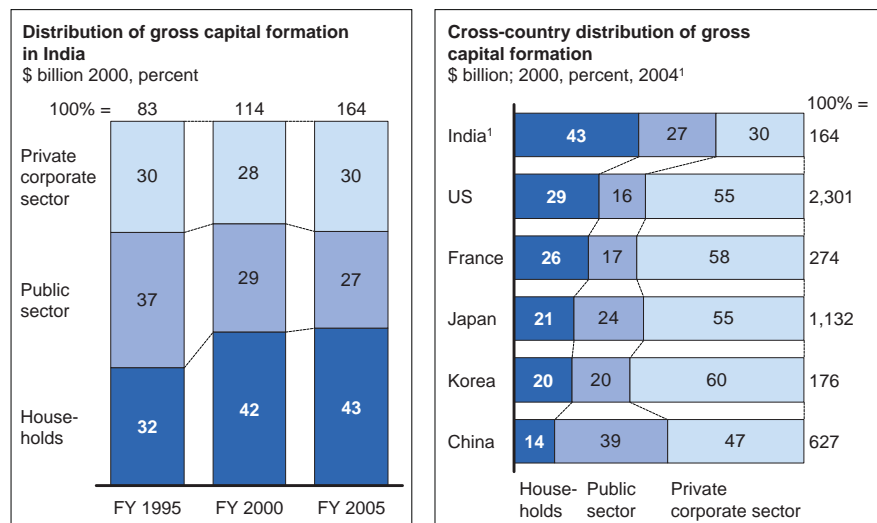
SKewed INVESTMENT PATTERN LOWERS PRODUCTIVITY AND GROWTH

The inefficient allocation of capital perpetuates a skewed investment pattern in India that lowers its growth. Because households invest one-quarter of their savings directly into household businesses and receive further support from directed lending policies, the tiny, very low-productivity household enterprises in the "unorganized" sector account for 43 percent of gross capital formation in the economy—a share that has been rising over time (Exhibit 3.18). India's government accounts for another quarter of investment, which as we saw earlier yields relatively little in terms of new output. Meanwhile, India's efficient and dynamic private corporate sector accounts for just 30 percent.

With this pattern of investment, it is somewhat surprising that India has managed to grow as fast as it has in recent years. The priority lending that diverts credit from

Exhibit 3.18

HOUSEHOLDS ACCOUNT FOR 43 PERCENT OF INVESTMENT IN INDIA



Note : Numbers may not add due to rounding

¹ US household is historically high because of boom in residential investment; figures for South Korea, China are from 2003; figures for India as of March, 2005

Source: CSO India, Bank of Korea, BEA, ISEE France, ERSI Japan, Global Insight; McKinsey Global Institute analysis

more productive private enterprises to small household businesses and small-scale agriculture, combined with the failure of India's financial system to attract a larger share of household savings in the first place, keeps afloat the millions of tiny businesses that would otherwise consolidate and grow. Indeed, these regulations make it rational for household businesses to stay small, because otherwise they will forfeit their borrowing and tax privileges.

Given the current lack of jobs in rural areas, investing in a household business is a rational way for agricultural households to boost their income. These enterprises generate some cash income, household labor is essentially free, hours are flexible and can be adjusted to accommodate the agricultural cycle, and even children can help out.

Yet the fact that more than half of India's investment is undertaken in such enterprises is inefficient and hinders job creation. A far better outcome for India's economy as a whole would be to pool the money spent on investments in these enterprises—which in 2004 equaled \$24 billion—and fund larger-scale businesses that reap economies of scale and utilize technology and modern management techniques. Combined with reforms to product and labor markets,

these enterprises could then provide wage jobs for rural households. Their higher level of productivity would raise living standards and increase growth. More jobs and wealth would ultimately be created in this way, and the economy as a whole would grow faster. This is the process that mature economies went through to transition out of agriculture, but it is a process that is thwarted in India.

To put India on a more stable and productive development path without causing a decline in rural incomes, the government could replace current directed lending programs to household enterprises with more market-based incentives to fund small and medium enterprises. For instance, it could provide credit guarantee schemes to cover part of the risk of creditworthy small and medium enterprises, as South Korea and Taiwan have successfully done. Or it could auction off subsidies to banks to make lending to rural businesses profitable, as Chile has done. These market-based incentives will allow banks to operate on a commercial basis and give them incentives to create a profitable business out of rural lending while still supporting rural incomes. Of course, further liberalization of product and labor markets will also be needed in many areas to spur competition and allow more enterprises to flourish. But equally critical is ensuring that funding goes to the most productive enterprises possible; this is the only way that India will be able to create the quantity of jobs needed to employ the population now engaged in subsistence businesses.

CONCLUSION

Much of the savings and investment fueling India's GDP growth goes on outside the formal financial system. India's economy would grow faster, however, if the financial system pooled these savings together and channeled them to larger-scale, more-productive enterprises. By addressing these problems through a comprehensive set of reforms, India could significantly raise investment in the economy and spur faster growth. As we will see in the next chapter, reforms could add about 7 percent to GDP annually and raise the growth rate of real GDP to China's level.

UNDERSTANDING INDIA'S PUBLIC FINANCES

The central and state governments in India both run very large fiscal deficits. In the fiscal year ending March 2005, the central government operating deficit was 2.7 percent of GDP—the most commonly cited figure. But this is not the whole story. In addition, the central government was also running a deficit in its capital budget, which captures investment expenditures financed by the central government. This deficit amounted to 1.7 percent of GDP, producing a total fiscal deficit of 4.5 percent for the central government. State government deficits added up to 3.8 percent of GDP in 2004, putting the total deficit at 8.3 percent of GDP.

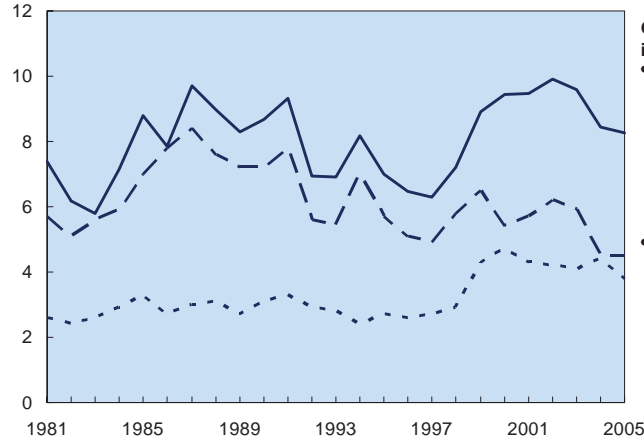
Over the past 25 years, the combined central and state government fiscal deficit has averaged 8 percent of GDP, a level that has remained remarkably constant over the years despite faster economic growth in recent years (Exhibit 3.19). Since 1998, the central government's operating deficit has fallen, and in 2004 it stood at 2.7 percent. However, state government deficits have grown over the same period, and the deficit on capital expenditures remains unchanged.

The actual deficit is even higher than this, however, because not all investment expenditures by public sector enterprises are counted as part of the budget, even though they are part of the government spending plans. Funds for these investments are raised by public sector enterprises through banks and the capital markets. As these debts are guaranteed by the full faith and credit of the government, they are effectively the same as a further increase in government borrowing. If these expenditures were included in the central government budget, they would raise the gross fiscal deficit by about 1.1 percent of GDP. Interviews and external estimates indicate that similar levels of off-budget spending for public sector enterprises occur at the state level and would conservatively add an additional one percentage point to the overall deficit. Thus, in 2004, India's gross fiscal deficit was likely at least 10.4 percent of GDP.

Exhibit 3.19

INDIA'S CONSOLIDATED GROSS FISCAL DEFICIT HAS AVERAGED MORE THAN 8% OF GDP FOR THE PAST 25 YEARS

Gross fiscal deficit
Percent of GDP, fiscal year¹



— Total
- - - Central governments
..... State governments

Gross fiscal deficit includes

- The **“revenue account” deficit**, which captures the difference between government tax receipts and other major sources of revenues and expenditures on government operations and services
- The **“capital account” deficit**, which captures the difference between fixed investment (including funding for public sector enterprises) and the recovery of loans and other small receipts

¹ Consolidated deficit is not the direct sum of central and state deficits as inter-government transfers must be netted out.
Source: RBI; government of India and state budget documents; CSO; McKinsey Global Institute analysis

4. Potential Gains from Financial System Reform

The shortcomings in India's financial system impose several types of costs on its economy that lower GDP and slow its growth rate. First is the cost of operating inefficiencies. Channeling funds from savers to borrowers has a cost in every financial system, but this cost is higher than it needs to be in India because of the performance gaps described in Chapter 2. Reforms to raise the operating efficiency of the financial system could reduce its costs by \$22 billion per year—worth four times the amount of foreign direct investment India receives every year. These savings would accrue to Indian households, in the form of higher returns on savings, and Indian companies, in the form of a lower cost of capital.

More onerous is the indirect cost to the economy that arises from the poor allocation of capital and the insufficient savings mobilization. As we saw in Chapter 3, India's financial system channels the majority of funds to enterprises that have low productivity. Reforms that prompted a larger share of funding to go to India's more productive private corporate enterprises would increase investment efficiency and raise GDP by up to \$19 billion a year. Over time, less productive state-owned enterprises and household businesses would raise their efficiency in order to compete for funding. This would raise the amount of output India got for every rupee of investment. In addition, reforms to capture more of households' savings, most notably their expenditures on gold and investments in microenterprises, and then allocate them to the most productive companies in the economy would raise GDP by an additional \$6.6 billion a year.

Together, these reforms could boost India's GDP by up to 7 percent every year. They would also substantially raise India's growth rate. By increasing the efficiency of investment to be on par with the most productive parts of the economy, we estimate that India could have raised its growth rate by 2.5

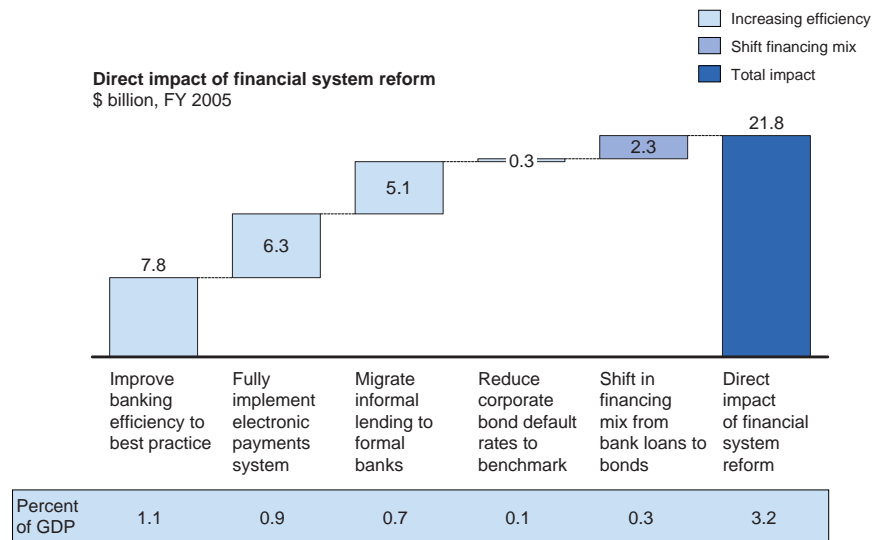
percentage points a year. Over the past six years, this would have increased the growth rate of real GDP from an average of 6.1 percent to 8.5 percent. Going forward, this would translate into sustained real GDP growth of more than 9.0 percent annually, pushing real income per capita to more than \$1,200. This is 30 percent larger than it otherwise would be and would lift millions more households out of poverty.

IMPROVING FINANCIAL SYSTEM EFFICIENCY

The performance gaps in India’s banking system, corporate bond market, and payments system significantly increase their operating costs relative to better-performing systems. To cover these costs, financial institutions widen the spread between their lending and deposit rates, and charge higher fees. In other words, the cost of financial intermediation is higher in India than it needs to be. Borrowers thus pay more for their capital and depositors receive less. We calculate that improvements in operating efficiency could save a total of \$21.8 billion a year (Exhibit 4.1). As a pure efficiency gain, this is clearly a win-win outcome for India. It comes from savings in each part of the financial system.

Exhibit 4.1

INCREASING FINANCIAL SYSTEM EFFICIENCY AND SHIFTING THE FINANCING MIX CAN RAISE GDP BY \$22 BILLION ANNUALLY



Source: RBI; CSO; McKinsey Global Institute Analysis

Banking sector

As a result of low productivity and lack of competition in the banking system, the average spread between deposit and lending rates in India is higher than it could be. At 6.3 percent, this is more than twice as high as the spread of 3.1 percent in our benchmark countries (an average of bank spreads in the United States, South Korea, Malaysia, Singapore, and Chile). Given India's current volume of loans (\$244 billion), this difference adds \$7.8 billion a year to the costs of the banking system.¹ This cost is born mostly by borrowers, who, as we saw in Chapter 3, pay far higher interest rates than companies in the United States or China. If India's banks improved their operations, they could reduce rates for borrowers and lend more to fund business investments, and thus increase economic growth.

Bond market

In a bond market, the cost of intermediation can be measured as the difference between the cost to companies and other institutions of issuing bonds and the returns earned by investors that buy the bonds. Most of the time, this relatively small spread is outweighed by the default risk that the investor takes on. But an efficient bond market reduces defaults by providing transparent information on issuers. We therefore estimate the cost of intermediation in the corporate bond market as the default rate. In India, it is 2.3 percent, compared with the average default rate of 1.8 percent in our benchmark countries. Because India's bond market is very small, however, with only \$55 billion of bonds and private placements outstanding, improving the default rate would save only \$0.3 billion a year.

Informal lending

India's very large informal lending market, estimated to have around \$85 billion of loans outstanding, plays an important role in funding agriculture as well as the millions of household enterprises and small businesses. Although interest rates on informal loans are higher than those on loans from formal banks, the difference is likely to reflect mainly the higher risk of borrowers in the informal lending market. The cost of intermediation is also probably higher in informal lending, but that reflects the very small size of loans and lack of legal enforcement of contracts. This is why formal banks in India and in other countries have found it uneconomic to make tiny loans to high-risk rural borrowers, and why nearly all

¹ See Technical Notes at the end of this report for more detail on calculating the cost of intermediation in each part of the financial system.

microfinance projects require continuous capital injections from governments or aid organizations.²

Still, informal lending in India amounts to about one-third of formal bank lending. Given its scale, it is hard to imagine that replacing this informal system with loans from formal banks would not improve overall efficiency and lower costs for borrowers. To estimate what the size of this potential might be, we add the difference between the rates small businesses pay in the formal and informal markets to the spread in the formal market. This implies an informal lending spread of 9.0 percent. Some of this higher spread is undoubtedly due to the higher risk of borrowers that use informal lending. Still, at least part is likely due to the far smaller scale of operations of informal lenders and their inability to legally enforce loan contracts. Reducing the use of informal finance by increasing credit for private companies from formal banks operating at the efficiency of benchmark countries could save up to \$5.1 billion in intermediation costs each year. This would accrue mainly to small and medium-sized enterprises through lower interest charges on loans.

Payments system

India's payments system is still heavily paper based, particularly for retail payments. More than 90 percent of consumer payments are still made in cash, bypassing the payments system in its entirety.

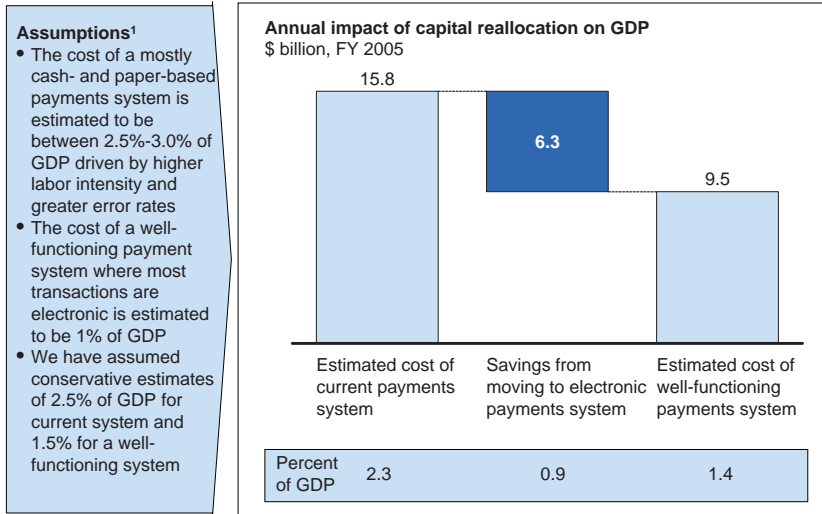
However, the benefits to the economy of moving to electronic payments would be significant. Paper- and cash-based systems are less efficient than their electronic counterparts not only because they require far more labor and coordination across the financial system but because they also produce many more errors. Moreover, the time it takes for settlement to occur creates risk that is minimized in systems that are more electronically based. The cost of a mostly cash- and paper-based system such as India's is estimated to be between 2.5 and 3.5 percent of GDP. In contrast, the cost of a well-functioning system that is heavily electronically based is estimated to be 1.0 percent of GDP.³ Conservatively assuming that savings to India could amount to 1.0 percent of GDP implies an annual savings of \$6.3 billion (Exhibit 4.2).

2 See Jonathan Morduch, "The microfinance schism," *World Development*, 2000, Volume 28, Number 4.

3 Humphrey et al., 2000; Humphrey, 1996.

Exhibit 4.2

IMPROVING THE PAYMENTS SYSTEM CAN SAVE \$6.3 BILLION ANNUALLY



¹ Based on estimates from academic literature.
Source: Humphrey, Pulley, Vesala (2000); Humphrey (1996); McKinsey Global Institute analysis

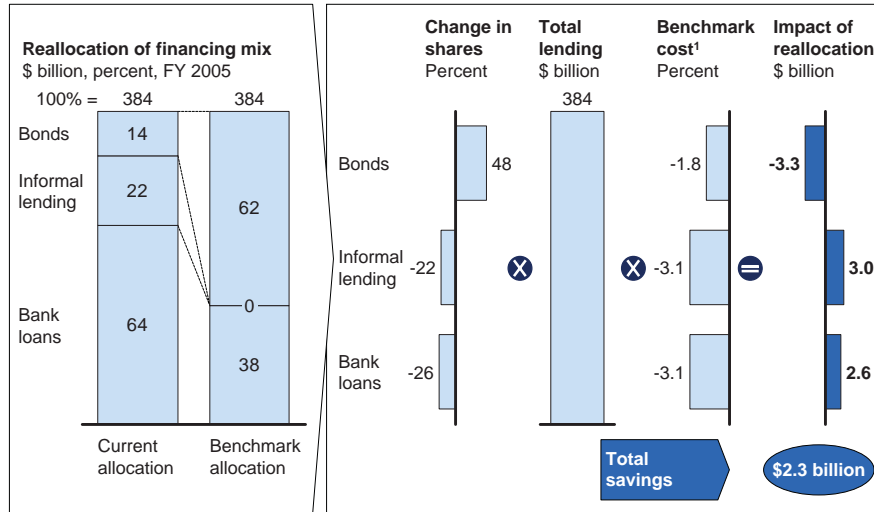
Improving the mix of finance vehicles available to companies

Lack of a healthy corporate bond market causes large, creditworthy companies in India to seek most of their debt funding from banks. This not only crowds out less creditworthy borrowers, it also raises the cost of capital for these companies. In countries with a developed corporate bond market, banks are a more expensive source of capital for large companies and are better suited to the small and medium-sized businesses that require careful monitoring and close evaluation of investment opportunities. These additional services, combined with other bank functions, make this a more expensive source of funds.

In our benchmark countries (United States, South Korea, Malaysia, Singapore, and Chile), bonds account for roughly 60 percent of all debt financing in the economy, while bank loans account for about 40 percent (Exhibit 4.3). The informal lending market is negligible. In contrast, bonds account for only 14 percent of debt in India, informal loans account for 22 percent, and bank loans account for 64 percent. Shifting the mix of corporate debt funding to what we observe in the benchmark countries would save \$2.3 billion annually for Indian companies by lowering their cost of borrowing. The savings from moving away from bank and informal financing more than outweighs the additional cost of the extra bond financing.

Exhibit 4.3

SHIFTING MIX OF FINANCING VEHICLES WOULD REDUCE COST TO BORROWERS BY \$2.3 BILLION ANNUALLY



¹ Bonds are default rates in the United States; banking is average net interest margin of U.S., South Korea, Malaysia, Singapore, and Chile.

Source: GFS; S&P; EIU; Moody's; India Banking 2010; McKinsey Global Institute analysis

BETTER ALLOCATION OF CAPITAL

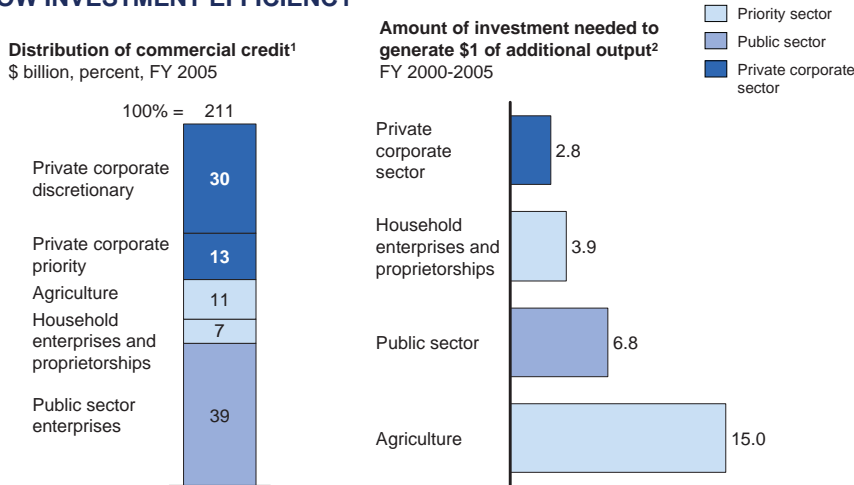
As we saw in Chapter 3, India's private corporate sector, the most productive in the economy, receives only 43 percent of total commercial credit, one-quarter of which is directed lending to small corporations. Some 39 percent of commercial loans go to state-owned enterprises. Although some of these are undoubtedly profitable, as a group, they have far lower investment efficiency and productivity (Exhibit 4.4). This is true both in aggregate and within specific industries.⁴ The remainder of credit goes to government-designated priority sectors, which also have low levels of productivity.

Financial system reforms that enable banks to make market-based lending decisions and lend more to India's more productive private sector would raise India's overall productivity in two main ways. First, more-efficient private companies would get the funding they need to grow faster, without having to rely almost completely on retained earnings. Over time, they should become a larger part of the economy. Second, many state-owned companies and household enterprises will improve their operations to compete for funding. While some

⁴ See Exhibits 3.3–3.6.

Exhibit 4.4

MORE THAN HALF OF COMMERCIAL CREDIT GOES TO SECTORS WITH LOW INVESTMENT EFFICIENCY



1 Gross bank credit to non-financial companies, corporate bonds and private placements, and loans and investments from the government to public sector enterprises.

2 The incremental capital output ratio is defined as the sum of gross investment divided by the total change in GDP over the period. See Technical Notes.

Source: CSO; RBI; Public Enterprise Survey; McKinsey Global Institute analysis

will be unable to compete and will shut down, experience in other countries has shown that many will raise their performance in the face of competitive pressure. Both these changes will raise productivity in the economy and allow India to generate more GDP for its current level of investment.

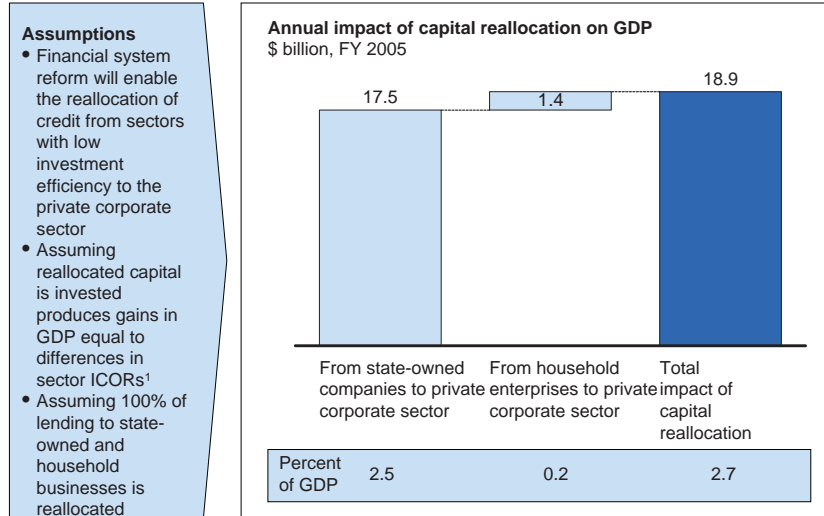
We calculate that financial system reforms that promote a better allocation of credit would raise the amount of output given current investment levels, boosting GDP by up to \$18.9 billion, or 2.7 percent (Exhibit 4.5).

Achieving this potential, however, will require further reforms in the real economy. Today, an array of labor market restrictions, limits on foreign direct investment, and product market regulations protect unproductive small companies and prevent more-productive ones from growing and taking market share.⁵ The poor quality of infrastructure in many parts of the country and land market restrictions and inefficiencies also lower growth. To achieve the full benefit of financial system reform and unleash faster growth, India's government will need to address these problems as well, as we discuss in the next chapter.

5 For more details on how regulations lower India's growth, see Amadeo M. Di Lodovico, William W. Lewis, Vincent Palmade, and Shirish Sankhe, "India—From emerging to surging," *The McKinsey Quarterly*, 2001 special edition: Emerging Markets, pp. 28–50.

Exhibit 4.5

IMPROVED CREDIT ALLOCATION CAN RAISE GDP BY UP TO \$19 BILLION ANNUALLY



¹ See Technical Note for discussion; ICOR = incremental capital-output ratio
Source: RBI; CSO; McKinsey Global Institute analysis

Reforms to change India's current allocation of capital will likely draw political resistance from some quarters. This is because of understandable concerns about withdrawing finance from tiny household enterprises, which at present employ approximately one-third of the workforce, and from large state-owned enterprises, which employ an additional 5 percent of workers.⁶ But by continuing to direct funding to relatively less-productive enterprises in these sectors, the financial system is perpetuating lower-than-necessary levels of productivity and growth in the economy as a whole and thus impeding the creation of more wealth. Financial system reforms that result in more capital flowing to the most productive investment opportunities will accelerate growth in overall GDP, creating many new jobs to replace those that are lost.⁷

⁶ Employment shares are based on total economy estimates including the organized and unorganized sector. Latest available estimates of employment shares are from 2001 to 2002. Employment in the public sector is more than two-thirds of organized employment.

⁷ See Amadeo M. Di Lodovico, William W. Lewis, Vincent Palmade, and Shirish Sankhe, "India—From emerging to surging," *The McKinsey Quarterly*, 2001 special edition: Emerging Markets, pp. 28–50.

The additional GDP from reforms would also increase government tax revenues, even if tax rates were not raised. We calculate that the \$49 billion of added GDP would raise \$11 billion more of taxes. These funds would help India's government to reduce its persistent fiscal deficit and could also be used to fund social programs for rural areas and displaced workers from public sector enterprises, especially programs to equip more of the workforce for jobs in the modern economy. Instead of distorting the financial system to achieve its social goals, India's government could better achieve those goals by freeing the financial system to undertake market-driven capital allocation, thereby increasing wealth creation.

Moreover, social concerns only partly explain the skewed allocation of funding to state-owned enterprises and priority sectors. As discussed in Chapter 2, weak banking skills, lack of information about potential borrowers, inadequate governance, and capital market regulations limiting expansion in the bond market also contribute. These inefficiencies are not in the interest of either India's government or its people. If the government chooses to loosen the reins on the financial system and allow competition and risk-based pricing to determine the allocation of credit, the system itself will naturally "pick the winners" that will lead future growth in the economy better than regulation ever can.

MOBILIZING MORE SAVINGS

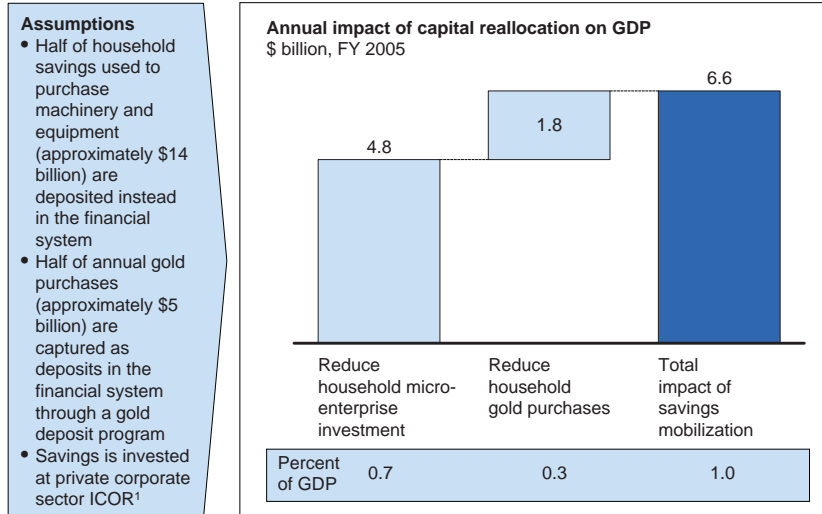
Reforms could enable India's financial system to capture more savings from two principal sources: the large purchases of gold by households and the savings that households currently plough back into their tiny businesses, avoiding intermediation by the financial system. Changing the pattern of savings will take time, and require the creation of wage jobs in rural areas to replace household enterprises and more accessible financial products. But the size of the potential prize is large. If the financial system captured more of these savings and then directed them toward the most productive investments in the economy, rather than the current allocation of capital, India could raise GDP by up to \$6.6 billion per year (Exhibit 4.6).

Capturing some of the value of gold purchases

In 2005, Indian households purchased \$10 billion of gold (for more detail on monetizing gold, see Appendix). India's government has made several attempts to bring the value of households' gold holdings into the financial system to fund

Exhibit 4.6

IMPROVED SAVINGS MOBILIZATION CAN RAISE GDP BY UP TO \$7 BILLION ANNUALLY



¹ See Technical Notes for discussion; ICOR = incremental capital-output ratio.
Source: RBI; CSO; McKinsey Global Institute analysis

more investment in the economy. However, such attempts to monetize the gold stock have managed to convert into financial assets the equivalent of only 1 percent to 5 percent of annual gold purchases.

In March 2005 the government proposed a new gold initiative that would enable consumers to buy paper gold certificates and cash them in for the current value of gold at any time they wished. Over time, banks would be allowed to lend against the deposits from this program. If this program, or a similar one, could convert just half of the money Indians spend each year on gold into financial savings, and these savings were channeled to India's private corporate sector, this would raise GDP by approximately \$2.2 billion. As important as the gain in savings of a successful scheme for monetizing gold would be its potential to draw many more households into the financial system for the first time. Over the longer term, as these households became more familiar with banking services, such a scheme could have a large impact on the degree of financial intermediation in India.

Attracting more household savings

Several reforms to the financial system could help motivate households to invest a larger share of their savings in financial assets. First, reforms can prompt the development of intermediaries, such as mutual funds and insurance companies, that can develop more attractive consumer financial products. In addition, reforms to increase bank competition can improve access for rural households to banks. Although India's government has been successful in increasing the number of banks in rural areas, they still account for less than 15 percent of deposits and lending. Banks tend to treat this business as a loss-making requirement, and most have not made profitable businesses out of it. In other countries, greater competition in the banking sector has greatly increased penetration among households, because competition forces banks to find new customer segments and profitable ways to serve them.

Further liberalization of the real economy will also be essential to capturing more household savings. Rural households need wage jobs to provide an alternative to the subsistence enterprises in which they now invest to earn income. Giving them jobs would not only raise their standard of living but also enable them to put more savings into the financial system, which would then be used to fund more productive investments. To increase the number of rural jobs, India must invest in rural infrastructure, ease stringent labor market restrictions that apply to all companies with more than ten employees, and end product market restrictions, such as the Small Scale Reservation Act, that hinder growth of manufacturing operations.

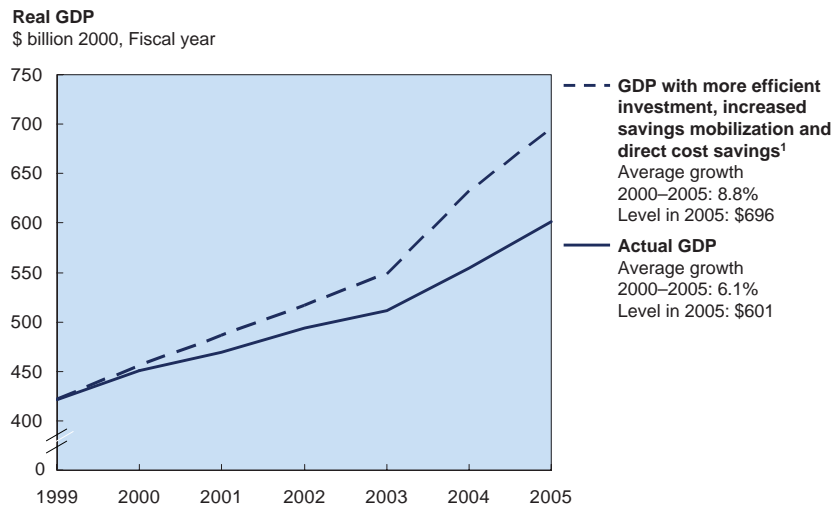
Assuming such reforms resulted in capturing half of the current level of investment in household subsistence enterprises as financial savings, banks could then lend more to the more-productive private corporate sector. This would raise overall productivity in the economy and boost GDP by a further \$4.8 billion annually—nearly the amount of foreign direct investment India receives each year.

REFORMS WOULD RAISE INDIA'S GROWTH RATE TO CHINA'S LEVEL

Allocating more capital to the most productive parts of India's economy will not only add to India's GDP but will allow it to grow faster. If India had enacted reforms in 1998 and raised the productivity of investment in the public and household sectors to that of its private corporate sector, real GDP growth since then would have averaged 8.8 percent annually, instead of the actual 6.1 percent (Exhibit 4.7). This would have resulted in an additional \$90 billion of GDP in 2004.⁸

Exhibit 4.7

IMPACT OF FINANCIAL SYSTEM REFORM CAN HAVE A SIGNIFICANT IMPACT ON GROWTH



¹ Public and household sector investment is assumed to be as efficient as private corporate sector in each year; savings from increased mobilization and financial system reform are invested at the same rate as overall investment in GDP and are assumed to be as efficient as private sector investment.

Source: CSO; RBI; McKinsey Global Institute analysis

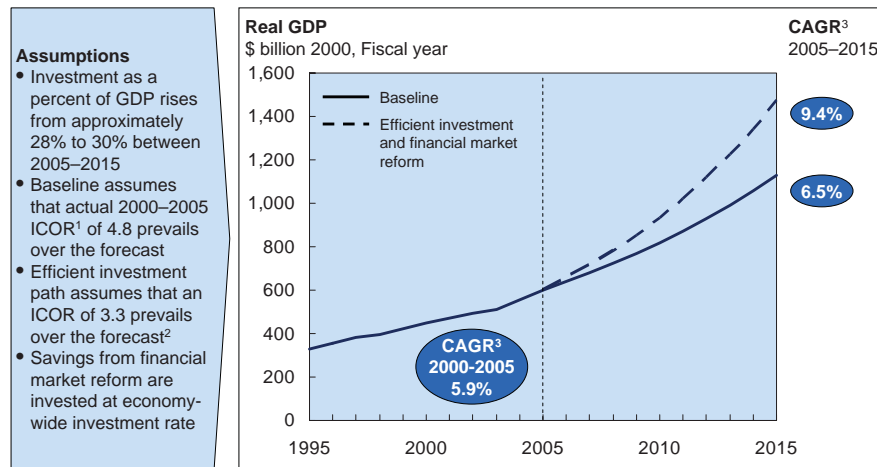
Over the next ten years, the impact of more efficient investment would be even more dramatic. If India is able to maintain investment at 30 percent of GDP over the next ten years, higher investment efficiency could raise growth to more than 9.0 percent annually, a level comparable to China, the world growth leader (Exhibit 4.8). This could be achieved by raising the productivity of investment in the public and household sectors to that achieved by the private corporate sector, a feat that will require both reallocation of capital and broader liberalization to increase competitive pressure in the economy. Without reforms, if investment efficiency remains at the level achieved between 1999 and 2004, real GDP can be expected to increase only 6.2 percent annually. The difference in these

⁸ See Technical Note for further explanation of growth analysis

growth paths is substantial: in 2014, India's per capita income would be 30 percent higher under the more efficient growth path (Exhibit 4.9).

Exhibit 4.8

MORE EFFICIENT INVESTMENT AND FINANCIAL MARKET REFORMS CAN BOOST INDIA'S GROWTH RATE TO 9.4 PERCENT



1 Incremental capital – output ratio.

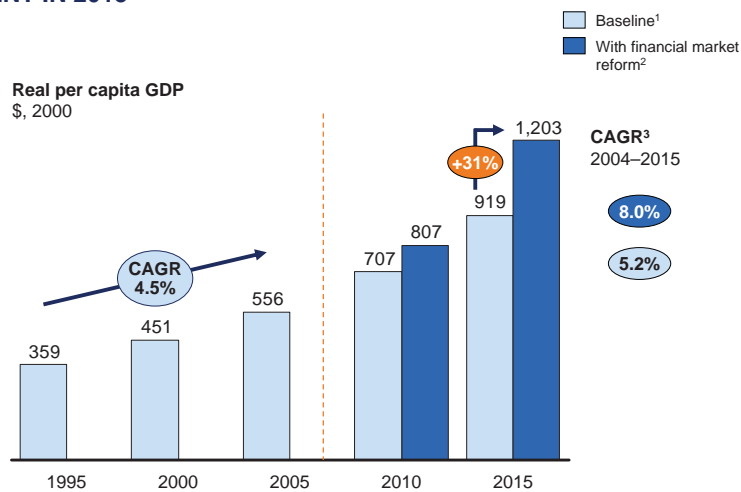
2 Efficient investment ICOR is the average rate implied if the public sector and households are as efficient as the private corporate sector between 2000–2005. See exhibit to come and the Technical notes.

3 Compound annual growth rate.

Source: CSO, RBI, Oxford Economics, McKinsey Global Institute analysis

Exhibit 4.9

FINANCIAL SYSTEM REFORMS WOULD RAISE PER CAPITA INCOME BY 30 PERCENT IN 2015



1 Forecasts of investment rates from Oxford Economic Forecasting

2 Assumptions: improved financial system efficiency, capital allocation, and savings mobilization

3 Compound annual growth rate.

Source: CSO; RBI; OEF; McKinsey Global Institute analysis



5. Priorities for the Reform Agenda

Comprehensive financial system reforms have the potential to generate significantly more wealth creation and faster growth in India. As we saw in Chapter 4, improving the operational efficiency and capital allocation of the financial system could add nearly 30 percent to GDP by the end of 2014 and increase its real growth rate to 9.4 percent a year—a substantial prize that should create a sense of urgency around enacting further reforms and help overcome political resistance.

India's government is currently considering several major financial system reforms. Proposals launched in 2005 and currently being debated include reforms to the pension system, the payments system, and the corporate bond and asset-backed securities markets. In early 2006, the Reserve Bank of India (RBI) created a committee to revisit the possibility of lifting remaining capital account restrictions; the committee will issue its report in July. Each of these initiatives is undoubtedly important and necessary in its own right. But current reform efforts could be enhanced along three dimensions.

First is to increase the urgency around reform efforts and clarity around what each must accomplish. India's government initiated financial system liberalization with great urgency in 1991 in the wake of a balance of payments and financial crisis. Fifteen years later, many government leaders see a less-visible need for change and are reluctant to make the difficult political trade-offs involved. Many of the reforms now on the table have been debated for a year or more, with no sign of when action will be taken. Moreover, lack of a clear understanding of the critical elements essential to each reform has led India's Congress to propose

some amendments that would nullify the intended impact of reforms. Proposed amendments to the pension reform bill, for instance, may put the same sort of statutory requirements on pension fund investments that currently divert most funding to the government. This would limit the reforms impact on further developing India's bond and equity markets.

Second, the current reform agenda must be augmented with additional measures. The shortfalls in India's financial system's performance identified in this report are intricately linked across the system's components. A broader array of financial sector reforms must therefore be undertaken together. Below, we outline the 12 reforms that regulators should make a priority.

Finally, financial sector reforms must be coordinated with broader liberalization efforts in the economy. Reforms to India's product and labor markets, and rules on foreign investment, must go hand in hand with financial sector reform to unleash faster growth. Two-thirds of the value of financial sector reforms identified in this report require capturing more savings from households and allocating capital to the most productive parts of the economy. But for these reforms to spark growth, India's government must also remove impediments to job creation and growth in the private sector.

In this chapter, we explore the interlinkages across the financial system and those between the financial sector and the broader economy. We then identify the full set of reforms that must be made to capture the potential wealth-creation opportunity. Our objective here is not to provide detailed instructions for how to implement each reform; rather it is to clearly articulate the major elements that must be on the reform agenda and explain how they fit together.

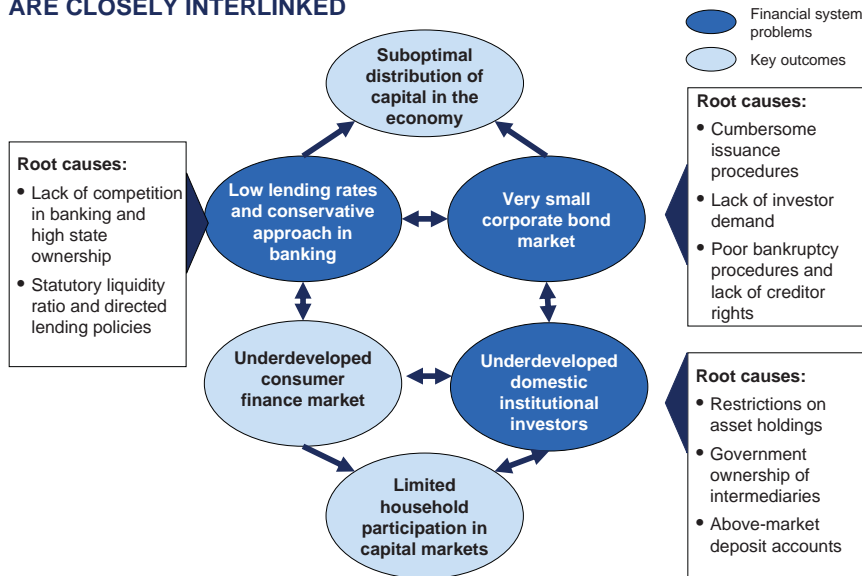
PROBLEMS ACROSS THE FINANCIAL SYSTEM ARE INTERLINKED

The problems within India's financial system cut across different markets (Exhibit 5.1). Reforms must therefore be coordinated across the banking sector, the corporate bond market, India's domestic institutional investors, and its capital account and foreign investment policies.

Lifting statutory lending requirements on banks and restrictions on the asset holdings of insurance companies and provident funds is a critical first step.

Exhibit 5.1

OBSERVED PROBLEMS IN INDIA'S FINANCIAL SYSTEM ARE CLOSELY INTERLINKED



Source: McKinsey Global Institute analysis

If enacted by itself, however, this reform could put upward pressure on the interest rates paid on government debt, as some of the institutional investors now required to hold government securities look to diversify their asset holdings. Further development of India's institutional investors and lifting of restrictions on foreign institutional investors in the government debt market is thus necessary to create new demand. Pursuing broader capital account liberalization at the same time could also help minimize the impact on interest rates by allowing India's government to issue international bonds and attract global investors. Given India's strong international track record of no defaults, it is likely that long-term debt could be issued internationally. Furthermore, the current supply of global liquidity and the benign interest rate environment could make the timing more opportune than ever.

Lifting statutory lending requirements will not entirely alleviate the misallocation of capital in India's financial system. Banks need new commercial lending skills and better information on borrowers to assess the credit risk involved if they are to flourish without the risk-free income they have enjoyed from government securities. Increasing competition among banks, in part by increasing limits on foreign ownership and investment in banking, is one way to prompt them to develop those skills. Spurring further development and expansion of a consumer

credit bureau is necessary as well. Increasing competition in the banking sector will also require accelerating the development of a robust corporate bond market to provide funding for the largest companies and prompt banks to focus on their natural customers, small and medium-sized businesses and consumers.

Development of the corporate bond market, in turn, will depend in part on reforms of domestic financial intermediaries. Measures to fix the supply side of the corporate bond market, notably streamlining issuance procedures, must be complemented by measures to stimulate demand for corporate bonds by supporting growth among financial intermediaries. Lifting restrictions on how they invest their assets will be an important step. This will allow them to develop more attractive financial products for consumers. Combined with measures encouraging households to monetize their gold holdings, the result should be not only more household savings flowing into the financial system but higher returns on households' financial assets and a more balanced rise in living standards than growth in India's economy has been able to deliver thus far.

BROADER ECONOMIC REFORMS ARE ALSO NECESSARY

Getting the full impact of financial system reforms will also require further liberalization of India's economy. Lifting statutory liquidity requirements, for instance, will be politically unlikely without reducing the size of the government's fiscal deficit, which in turn will likely require privatization of some public sector enterprises. In addition, allocating more capital to the private sector to boost growth will fail without overhaul of many labor and product market restrictions. India's strict labor laws apply to all companies with more than ten employees, creating an incentive for companies to remain small. Moreover, the Small Scale Reservation Act specifically requires some 500 different manufactured goods be produced in plants with less than approximately \$200,000 in fixed assets. Zoning laws have hampered the spread of modern retail formats and limited commercial real estate development, lowering productivity in those large sectors. In addition, rural job creation and infrastructure programs will be needed to provide wage jobs for households now in agriculture and provide an alternative to the subsistence businesses in which they now invest.

By the same token, financial sector reforms are needed to allow real economy reforms to succeed. To achieve higher rates of growth, corporate investments and infrastructure investments must both increase. This will require a robust bond

market that can provide long-term funding, as well as increased investments by foreign companies in many sectors. Faster growth will also require a large increase in construction, for both residential housing and commercial properties. But growth in the construction industry is unthinkable without the development of mortgage financing, now just 3 percent of GDP. Moreover, higher rates of investment will require more savings, either domestically or from abroad. Development of financial intermediaries such as insurance companies, pension funds, and mutual funds will be necessary to attract more household savings into the financial system, thus increasing savings available for intermediation to the private sector.

Financial sector and real economy reforms must therefore go hand in hand. In 2001 the McKinsey Global Institute completed a detailed microeconomic analysis of India's economy to understand what is holding it back and what policy changes could accelerate its growth.¹ It studied 13 sectors in detail—2 in agriculture, 5 in manufacturing, and 6 in services. The report concluded that India could sustain growth of 10 percent per year if it enacted a broad array of economic reforms (Exhibit 5.2). India has made some progress on these reforms since then, but far more remains to be done. Pursuing these is essential for enabling the financial sector reforms listed here to succeed.

PRIORITIES FOR FINANCIAL SECTOR REFORM

A comprehensive, integrated reform agenda for India's financial system that will improve capital allocation and mobilize more savings should include the following reforms as priorities (Exhibit 5.3). Although they are grouped under their main effect, interlinkages among elements of the financial system mean that each one will have systemwide benefits, as the exhibit illustrates.

Reforms to improve capital allocation

- 1. Lift most priority lending requirements, asset allocation restrictions, and guaranteed deposit schemes.** The most important reforms India's government can undertake are to lift asset allocation restrictions on banks and other intermediaries, end directed lending regulations to fund priority sectors, and end government guarantees on returns to

¹ See McKinsey Global Institute, *India: The Growth Imperative*, 2001. Available for free online at www.mckinsey.com/mgi.

Exhibit 5.2

REAL ECONOMY REFORMS REQUIRED TO COMPLEMENT FINANCIAL SYSTEM REFORMS

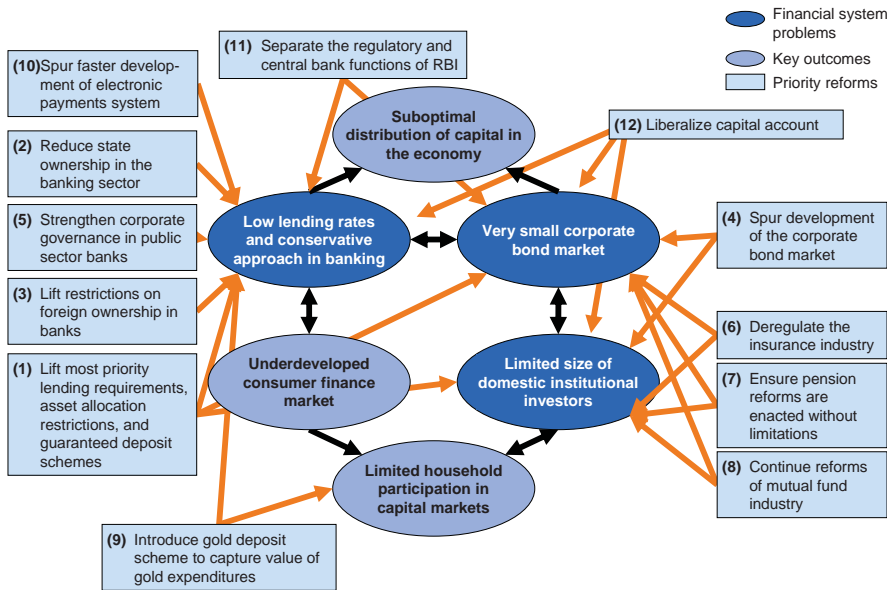
	Reform	Key sectors affected
Product market reforms	1. Eliminate the reservation of products for small-scale industry; start with the 68 products that account for 80 percent of output of reserved sectors	Manufacturing
	2. Ensure all states enact the value-added tax introduced in April 2005 and enhance enforcement, in order to equalize tax rates on goods, enable the government to lower overall tax levels, and increase government tax collection	Hotels, restaurants, manufacturing, retail
	3. Establish an effective regulatory framework with strong enforcement	Power, telecom, water supply
	4. Remove all licensing and quasi-licensing requirements that limit the number of competitors in an industry	Banking, dairy processing, petroleum marketing, provident fund management
	5. Reduce import duties on all goods to the level of Southeast Asian countries (10 percent)	Insurance, retail, telecom
	6. Allow unrestricted foreign direct investment in all sectors	Insurance, retail, banking, telecom
Land market reforms	7. Set up fast-track courts to settle land market disputes, computerize land records, free all property from constraints on sale, and remove limits on property ownership	Construction, hotels, restaurants, retail
	8. Raise property taxes and user charges for municipal services and cut stamp duties (tax on property transactions) to promote development of residential and commercial land and to increase real-estate market liquidity	Construction, hotels, restaurants, retail
	9. Reform tenancy laws to allow rents to move to market levels	Construction, real estate
State ownership	10. Privatize all companies owned by the central and state governments	Airlines, banking and insurance, manufacturing and mining, power, telecommunications
	11. Transfer management of existing transport sector to the private sector; contract out the construction and management of new infrastructure to it	
Labor market and rural areas	12. Reform labor laws by repealing section 5-B of the Industrial Disputes Act, introducing standard layoff compensation policies, and allowing full flexibility in use of contract labor	All labor-intensive manufacturing and service sectors
	13. Strengthen rural extension services to help farmers improve their yields	Agriculture
Other	14. Reduce combined state and central government fiscal deficits to end drain on national savings	All sectors
	15. Increase private and public investments in infrastructure, particularly in the areas of transport, water and sewage, airports, roads, and power	All sectors

Source: McKinsey Global Institute, *India: The Growth Imperative*, 2001.

savings in public provident funds and “small savings accounts.” This would immediately release more capital for investment in the private corporate sector, the most productive part of the Indian economy.

Exhibit 5.3

REFORM AGENDA MUST ADDRESS ALL PROBLEMS TOGETHER



Source: McKinsey Global Institute analysis

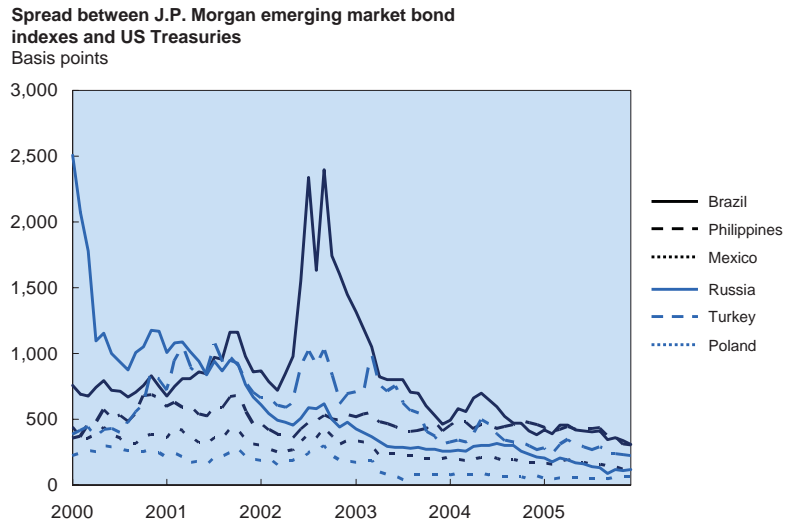
Undertaking such reforms will require difficult decisions for the government. When government securities compete with other savings vehicles on a level playing field, they are unlikely to attract a sufficient volume of savings to cover budget deficits of today's proportions without offering higher interest rates. Reducing the budget deficit, which in total amounts to around 10 percent of GDP², must therefore become a first-order priority. However, we believe that now is the right time for the government to tackle the deficit problem. First, it can expect tax revenues to rise as a result of the positive impact on GDP of the complete set of reforms listed here. At today's tax rates, the additional \$63 billion of GDP each year would create \$13 billion of new tax revenues. These could be used to cover government expenses, as well as to fund social programs for rural areas—but without impairing the financial system. Hastening the privatization of state-owned companies would also help, by raising funds and reducing the ongoing capital expenditures in public sector enterprises, as well as increasing competition and productivity throughout the economy. In addition, emerging market bond yields are at

² See Sidebar in Chapter 3 for more on public finances in India. Although many people cite India's budget deficit as around 3 percent of GDP, this is only a small part of the total public sector drain on finances.

very low levels today (Exhibit 5.4), and the government could likely issue international debt at reasonable levels to tap into global savings.

Exhibit 5.4

EMERGING MARKET BOND PREMIUMS ARE AT 5-YEAR LOWS



Source: Bloomberg; McKinsey Global Institute analysis

-
- 2. Reduce state ownership and increase competition in the banking sector.** In addition to ending lending restrictions, reforms to stimulate more competition among banks will be needed to prompt an increase in market-based lending. Competition is relaxed in India's banking sector in large part because of the high level of state ownership of banks. Public sector bank-management teams and staff do not receive market signals about their performance and are not subject to the threat of takeover if their stock price falls. They are under more immediate pressure to meet government objectives than to improve productivity. State ownership in the sector should therefore be reduced. In addition, regulators should allow entry of more domestic private banks. Finally, those Indian banks that remain under state control should be required to meet international standards in corporate governance to improve their performance. In particular, they need to establish clear lines of accountability throughout management, a greater focus on performance, an independent board, and standards for how board committees should be configured.

3. Lift restrictions on foreign ownership in banks. While India already has several good private banks, such as ICICI bank and HDFC, together these new private sector banks control only 13 percent of system-wide assets and 11 percent of deposits. Lifting restrictions on foreign ownership in banks would be an effective means of rapidly bringing skilled private operators into the sector. MGI research on the effects of foreign direct investment in selected sectors, including banking, across a number of emerging markets has found that FDI consistently raises productivity and output in the sectors involved, thereby raising national income while lowering prices and improving the quality and selection of services and products.³ RBI plans to keep the current restrictions on FDI in banks until 2009. It should revisit that decision and instead begin lifting limits sooner, as well as eliminating the many cumbersome restrictions on foreign bank operations. As China is doing, regulators might prepare to sell stakes in some of the largest state-owned banks and allow foreign purchases of smaller, weaker banks without the lengthy regulatory procedures and discretionary process in place today.

4. Spur development of corporate bond market. In December 2005, the government issued a lengthy report on bond market reforms.⁴ As they consider it, regulators must be clear on the essential elements of reform. Large companies are deterred from issuing bonds today because of high issuance costs, lengthy listing procedures, and a lack of standardization of bond contracts. India's regulators should spur supply by lowering issuance costs; making uniform and simplifying the tax treatment of different bond issues and private placements; and simplifying listing procedures by streamlining required disclosure, particularly for listed companies with plentiful information already in the public domain. They should also develop the appropriate trading infrastructure and create centralized information sources to enhance price discovery to ensure a robust secondary market. A strong base of institutional investors (discussed later) will be key to spurring the demand for corporate bonds as well. To build such an investor base, India's regulators should lift restrictions on foreign institutional investors' purchases of corporate bonds, which are now capped at \$500 million, to create more demand.

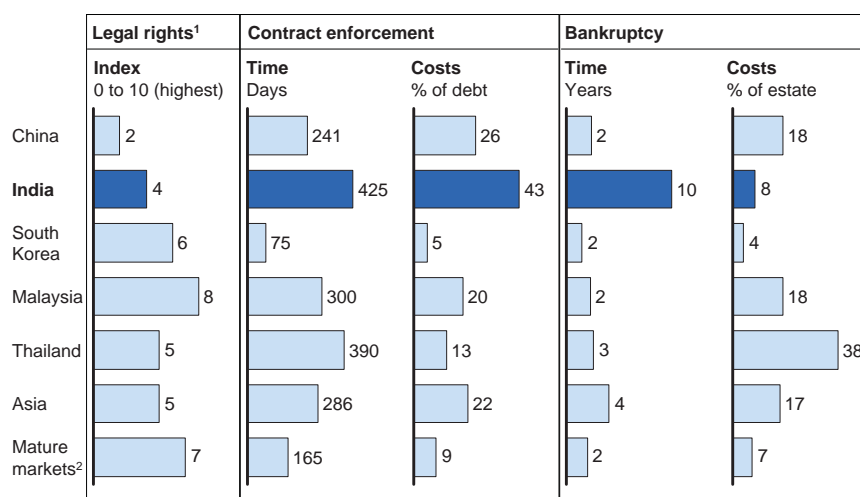
3 See Diana Farrell, Jaana K. Remes, and Heiner Schulz, "The truth about foreign investment in emerging markets," *The McKinsey Quarterly*, 2004 Number 1, pp. 24–35. Available online at www.mckinseyquarterly.com.

4 See RBI, *Report of the High Level Expert Committee on Corporate Bonds and Securitization*, December 2005.

5. Strengthen contract enforcement and bankruptcy procedures. The willingness of borrowers and lenders to participate in a credit market correlates with the enforceability of market contracts, the efficiency of bankruptcy procedures, and general investor protections. It takes more than a year on average to enforce contracts in India and ten years for a bankruptcy to complete (Exhibit 5.5). India also has high costs of contract enforcement. Bond markets involve buyers and sellers in long-term commitments: to develop its corporate bond and securities market, India must therefore improve the surrounding legal frameworks and investor protections.

Exhibit 5.5

ENFORCEMENT OF BANKRUPTCY LAWS IS WEAK IN INDIA



¹ Degree to which collateral and bankruptcy laws facilitate lending. Higher scores indicate that collateral and bankruptcy laws are better designed to expand access to credit.

² United States, Germany and Japan.

Source: IMF; World Bank; IFC

Reforms to hasten development of financial intermediaries

6. Deregulate the insurance industry. Despite rapid growth in insurance assets since the market was opened to private companies in 2000, 80 percent of the population in India is without any insurance coverage (life, health, or other forms of insurance). To increase penetration, the government should lift restrictions on foreign ownership of insurance companies, currently capped at 26 percent. The Insurance Regulatory and Development Authority has for some time considered raising the restriction to 49 percent. Doing so would enable Indian insurance companies to more easily obtain the capital injections they require to maintain and improve their growth and

to acquire the enhanced management and consumer marketing skills they need to increase consumer market penetration. Regulators should also lift restrictions on tariff rates for all insurance products. This process is set to begin at the start of 2007, but starting it earlier and faster will enhance growth in India's insurance industry.

7. Ensure proposed pension reforms are enacted without limitations. If implemented successfully, the New Pension System (NPS) proposed in March 2005 could substantially increase demand for corporate bonds and provide longer-term investors for equities, while also attracting more household savings into the financial system. However, there are several amendments to the NPS now being considered that would, if they pass into law, unnecessarily restrict pension operations and growth. They should therefore be dropped. The amendments under discussion include a 26 percent cap on FDI in pension fund intermediaries, prohibition of overseas investments by pension fund managers, a requirement of at least one fund manager from the public sector, and a requirement that one of the new pension funds invests exclusively in government securities.⁵ These are exactly the type of restrictions that need to be removed from all financial intermediaries to allow them to develop soundly.

8. Continue reforms of mutual fund industry. Over the past three years, the money under management in India's small but growing mutual fund industry has nearly doubled, due to successful deregulation of the industry and to the fact that nearly half of the country's mutual funds now have some ties with established foreign players such as Fidelity, Prudential, Standard Chartered, and ING. But penetration of mutual funds among households is still limited, and regulators should make some changes. First, regulators should eliminate the nonmarket-based guaranteed returns paid by provident funds and postal savings accounts, because these distort the competitive landscape and limit demand for mutual fund products. In addition, they should ease regulations on agent licensing. Current restrictions are onerous and have sharply reduced the distribution channel of mutual funds. The government should also provide more investor education to help households become familiar with mutual fund options.

⁵ Parliamentary Research Service, *The Pension Fund Regulatory and Development Authority Bill*, 2005, December 2005.

Reforms to capture more household savings

9. Introduce gold deposit scheme to capture value of gold expenditures. Last year Indian households bought \$10.1 billion worth of gold. If some of these gold purchases could be eliminated and the money put into financial assets instead, or if gold could be deposited into banks as rupees can, India could boost investment and financial system depth and liquidity. In 2005, India's government outlined a new proposal to create "paper gold." This would allow consumers to buy gold securities in increments as small as \$2 and receive the current value of gold when they sell the paper. Over time, banks would be allowed to make loans against the paper gold (properly hedging the commodity risk). India's regulators should continue to refine and implement this gold monetization scheme.

Reforms to improve overall system efficiency

10. Spur faster development of electronic payments system. Moving India's cash-based and paper-based payments system to an electronic one would unleash significant benefits for India's consumers, businesses, banks, and government. The Real Time Gross Settlement payment system discussed in Chapter 2 is based on an economic model that offers significant returns to scale. It should therefore be expanded to the regional or national level. The greatest challenge remains in the retail payments system, where electronic clearing and settlement has barely penetrated. To ensure comprehensive take-up of electronic retail payments technologies now being proposed, regulators need to create incentives for banks in semiurban and rural areas to bear the start-up costs of participating in the new systems. Just as important, both merchants and consumers need incentives to switch to electronic retail payments.

11. Separate the regulatory and central bank functions of RBI. Today, the RBI acts as both a regulator and a central bank. But conflicts of interest can arise because a bank regulator's concerns with the health of the banking system could be in conflict with the requirements of price stability and monetary policy decisions. Moreover, it is often the case that the regulatory arm is seen as the "junior partner" of the central bank and lacks clear goals. Many emerging markets have therefore found that creating an independent banking regulator spurs more reforms in the sector. In China, the China

Banking Regulatory Commission was spun off from the People's Bank of China in 2003 and has earned high praise for its reform agenda and its effectiveness as a regulator. India should do the same, allowing RBI to become an independent central bank.

12. Lift remaining capital account controls. Finally, India should lift the remaining capital account controls. Today these limit foreign borrowing by corporations and banks, as well as investments in foreign financial assets by individuals.⁶ This would allow companies and the government to tap into global savings, increasing investment in the economy. The trade-off is that India would need to give up either its pegged exchange rate or an independent monetary policy. Based on the plan promulgated in 1997, India has reached some of the preconditions for successful opening of the capital account, such as building a large stock of foreign exchange reserves. Other preconditions, such as getting the fiscal deficit under control, still remain a challenge. Certainly, India could pursue reforms gradually to minimize the volatility in foreign capital flows. It could also adopt measures such as restricting short-term foreign borrowing (as Chile did successfully) to manage the transition.

6 The current limit on foreign investments is \$25,000.



6. Closing Remarks

India is becoming a major force in the global economy. Entrepreneurial flair combined with more traditional strengths in democracy and education have helped to fuel unprecedented economic growth in recent years. A more liberal, market-friendly policy approach in many sectors has played a role. Yet one critical area of India's economy—the financial system—remains heavily under government control.

This report has shown that to sustain rapid growth, and to distribute its benefits more broadly, India needs a more market-oriented financial system. This conclusion is surprising, given India's 130-year-old stock market, its long tradition of private banks, and its Anglo-Saxon legal system (a critical element in financial market development in other countries). Yet outside the booming equity market, India's government maintains tight control of capital allocation through a tangle of regulations on directed lending and asset holdings of banks and other financial intermediaries. These greatly limit discretionary lending and investments in equity and debt markets, and they serve to channel three-quarters of savings to the government itself and to its priority investments.

The government maintains this level of control over the financial system for several reasons. It wants to ensure that funds flow to farms and small businesses in rural areas, where the mass of poor Indians live. It also needs to finance its persistently large deficits, so it obliges financial institutions to buy large amounts of government debt. And it wants to avoid the kind of market volatility that rocked financial systems elsewhere in Asia in the crisis of 1997–98.

These are understandable goals. But trying to achieve them by distorting the financial system is making all three less attainable.

Consider rural welfare concerns. Small farms and tiny household enterprises in India have very low levels of productivity. Directing large amounts of the nation's savings toward them means there is less capital for financial institutions to lend to India's highly competitive private corporations, some of them world-class companies. Recipients of priority loans are deterred from becoming more productive and consolidating because by getting bigger they would lose their entitlement to cheap finance. These effects hold back overall growth and job creation in the economy and, with it, the potential for better living standards throughout the country.

Moreover, priority lending has become a political game with no winners. India's banks treat their directed lending as an inevitable loss maker and seek to minimize it. Instead, they lobby the government to include in the definition of "priority sectors" businesses they know they can lend to profitably, such as small retailers and software companies. But lobbying and demonstrating compliance wastes time and resources for both banks and businesses.

India's rural poor as well as its entrepreneurs would be better served if the financial system allocated all its available capital to the most productive businesses. The resulting \$49 billion of additional GDP would increase taxes by \$11 billion, allowing the government to spend directly on social programs to raise rural living standards. If this is too far to move in a single step, the government should, as a transitional measure, provide market-based incentives for banks, such as loan guarantees or lending subsidies for rural areas, rather than directing their lending by fiat.

The government's need to fund a persistently large fiscal deficit is also a concern. Lifting requirements on banks and financial intermediaries to buy quotas of government bonds would most likely mean that the government would have to pay more for its borrowing. But that would provide a much-needed incentive to government to divest loss-making state assets that might flourish under new ownership, and to cut its administrative deficit. Being able to borrow cheaply, as it does today, encourages the government to spend too freely.

Last, deregulating markets is likely to make them less, rather than more, volatile. Thus far the RBI has sought to protect Indian financial markets from foreign investors while keeping tight control over exchange-rate movements. This

conservative stance helped India to avoid the Asian financial crisis of 1997–98. But academic research has shown that greater financial market development and depth reduces volatility in the financial system and in the economy.¹ Moreover, India's government has \$130 billion of foreign exchange reserves to help it stabilize fluctuations.

India now has a well-functioning equity market, thanks to reforms that began a decade ago. These introduced competition by creating a second stock exchange, established an independent regulator, and accepted foreign institutional investors, all keys to their success. Deregulating mutual funds and permitting direct foreign investment in them has similarly boosted India's mutual fund industry, whose assets under management, while still small, have doubled over the past three years. It is time for every market in India's financial system to be shaped primarily by supply and demand rather than state regulation. India's banking system and bond markets, as well as its insurance companies, pension funds, and provident funds, need the same kind of liberal, far-reaching reforms that have transformed its stock markets and mutual funds. The resulting gains from mobilizing more savings and allocating capital more efficiently will be more than six times the \$10 billion of additional investment each year that is the government's current aspiration.

India's economy has come of age; it is time to enable its financial system to join it.

1 Dynan, Elmendorf, and Sichel, 2006.



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Appendix:

Can India's Gold Be Monetized?

India's annual gold consumption has tripled since 1990, amounting to \$10 billion in 2005 alone. Today Indians own roughly 13,000 tons of gold, worth \$200 billion. This is equal to nearly half the country's bank deposits and one-third of its current GDP.

For a country seeking to raise investment levels and match China's growth rate, the prospect of converting this valuable asset into productive investment is tantalizing. The reason is clear: bringing the value of these assets into the financial system would enable financial intermediaries to lend and invest more, allowing the country to fund more investments. India's government has made many past attempts to attract households' gold into the banking system, with little success, and is currently debating a new proposal.

The potential to monetize India's gold, however, is smaller than it might seem. Only new purchases of gold out of current consumption can raise India's savings and investment rate; attempts to attract India's \$200 billion stock of past gold purchases would likely have no impact on the economy.

The reason is that the only way to increase current savings, and thus increase the supply of funds for investment, is to reduce gold consumption while prompting households to instead invest that money in financial assets. An alternative is to create bank accounts that allow consumers to deposit new gold purchases, just as they do rupees, and allow banks to make loans against that asset. But if consumers were to deposit their past gold purchases, this would simply expand the money supply, without changing current consumption. The Reserve Bank of India could do that today by printing money without monetizing gold.

Moreover, a sudden rise in gold deposits would likely be countered by RBI with a contractionary monetary policy to prevent the rapid expansion of credit and potentially igniting inflation.

As a result, we estimate that India could raise its gross national savings rate by 1.7 percentage points if it were to convert 100 percent of gold purchases into financial liquid assets. This is unrealistic, however, given the cultural value and consumption motivation for purchases of gold jewelry. Still, even attracting half of gold purchases annually would raise India's national savings rate by 0.85 percent. This is equivalent to \$5 billion annually, or the amount of foreign direct investment India now receives—not an inconsiderable sum.

The impact on India's financial system depth would be limited, however, simply because of the relatively small amounts involved. If India had been monetizing half of annual gold purchases since 1996, its overall financial depth today would be only 5 percent of GDP greater, or 180 percent instead of 175 percent.

So is monetization of gold a means of funding additional investment in the economy? Yes—but only if it has an impact on future demand. But will it noticeably alter India's financial depth? Not in the near term.

Technical Notes

The following section provides background information on seven key methodological approaches used in the report.

1. Determining India's financial stock
2. Measuring GDP in India
3. Estimating the distribution of commercial credit
4. Estimating sources of funds for corporations
5. Calculating the cost of financial intermediation
6. Calculating the impact of increased savings mobilization and the reallocation of credit
7. Estimating the impact of reform on growth

1. DETERMINING THE SIZE OF THE STOCK OF FINANCIAL ASSETS

All the figures on financial system assets presented in this report come from the McKinsey Global Institute Global Financial Stock database. This database, updated annually, maintains a record of the total amount of capital formally intermediated by financial systems in more than 100 countries. This includes the value of bank deposits, savings accounts, and currency; government debt securities; corporate debt securities; and equity securities. For debt and equity, we include the value of both domestic and international issues by companies. Together, these form the financial assets of a given country.¹

1 For further information, see "Mapping the Global Capital Market Second Annual Report," MGI, January 2006. <http://mckinsey.com/mgi/publications/gcmAnnualReport.asp>.

Several other financial instruments play a crucial role in modern financial markets, including derivatives and products offered by mutual funds and insurance companies. These have been excluded from the Global Financial Stock database, however, because they are not final investments. In other words, capital invested in derivatives or placed with insurance companies or mutual funds will be in turn invested in equity or bonds or deposited in a bank.

An alternative method of measuring financial system assets is by adding up the assets of all financial intermediaries in a country—banks, insurance companies, pensions, mutual funds, and others. We prefer the approach used here because it allows us to analyze the size and depth of specific markets: equities, bonds, and banking system. It also allows us to include the foreign securities issued by domestic companies and to exclude domestic holdings of securities from foreign companies.

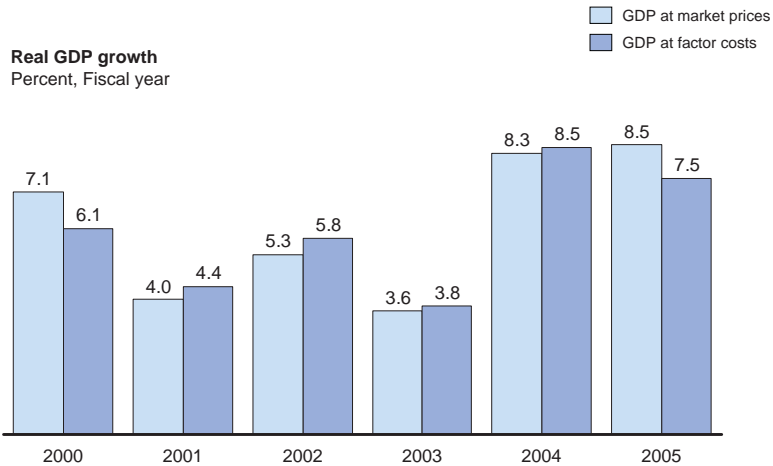
There are several potential limitations to our approach. One is that we account for bonds outstanding at their face value instead of market value, which is difficult to measure, especially for over-the-counter traded securities. In addition, we do not capture private placements or deposits in the postal savings system, development banks, and rural credit cooperatives. However, as explained in the main text, our analysis shows that these institutions are not significantly larger in India than they are in other countries (see Exhibit 2.6). To the extent our data is biased downward, it would be the same for other countries.

2. MEASURING GDP IN INDIA

The Central Statistics Organization of the Government of India publishes its estimates of GDP in two forms: GDP at market prices and GDP at factor costs. GDP at market prices is the traditional measure of GDP published by most countries. Final output is measured by expenditures valued at market prices—the actual price that consumers and producers pay for goods and services whether used for consumption or for investment. GDP at factor costs measures domestic product as the cost paid to the factors of production. GDP at market prices exceeds the measure of factor cost by the amount of indirect taxes less subsidies. Growth rates across these measures of GDP differ (Exhibit A). In the popular press, growth in India is often quoted at factor prices.

Exhibit A

INDIA MEASURES GDP AT MARKET PRICES AND AT FACTOR COSTS



Throughout this report we use GDP at market prices because this is the measure that is consistent with the GDP expenditure shares such as investment, measures of the savings and investment balance, and the current account. It is also the measure that is comparable across countries.

3. ESTIMATING THE DISTRIBUTION OF COMMERCIAL CREDIT OUTSTANDING

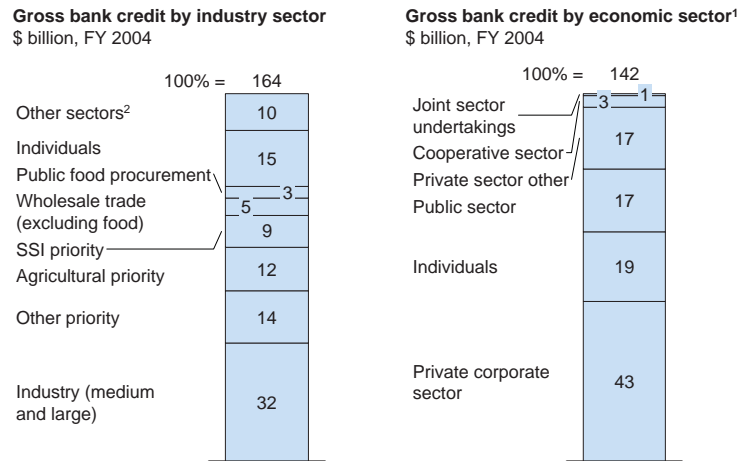
To calculate the impact of financial system reform, we estimate the distribution of commercial credit by broad economic sectors: the organized sector, comprised of the private corporate and public sectors, and the unorganized sector, comprised of agriculture and household enterprises (see Exhibit 3.1). Commercial credit includes gross bank credit to nonfinancial companies, corporate bonds and private placements, and loans and investments from the government to public sector enterprises.

RBI does not publish directly the distribution of gross bank commercial credit by economic sector in a way that also captures priority lending. The size of priority lending is important because it is how we identify lending to agriculture and household businesses. Similarly, measures of gross bank credit that capture priority lending do not differentiate across all economic sectors. Thus, we must

triangulate between these two published measures to estimate the distribution of gross bank commercial credit (Exhibit B).

Exhibit B

WE NEED TO DEVELOP A MAPPING BETWEEN TWO MEASURES OF BANK CREDIT



¹ Excludes loans less than 2 lakh. FY 2004 is latest available data for this breakdown.
² NBFCs, and other.

Source: RBI, Basic Statistical Returns of Scheduled Commercial Banks, Table No. 1.15: Outstanding credit of scheduled commercial banks according to organization; Trend and Progress in Banking in India, 2004–05, Appendix Table III.3: Sectoral deployment of gross bank credit; McKinsey Global Institute Analysis

We excluded credit to individuals, as our focus is commercial credit. (This share differed by only 0.2 percentage points on average between 1999 and 2003 across both measures of bank credit.)

Priority lending outside of agriculture and Small Scale Industry (SSI), called “other” priority sector lending, is assumed to go to small corporations. This is consistent with expansion of the priority lending definition in recent years to incorporate a wider range of industries and our interviews. Of the 43 percent of credit that goes to the private corporate sector, this implies that 14 percent is for priority lending, and the remaining 29 percent is loaned to private corporations on a discretionary basis.

Lending to the public sector includes joint sector undertakings to the public sector giving it an 18 percent share. This assumes that no priority lending goes to public sector enterprises.

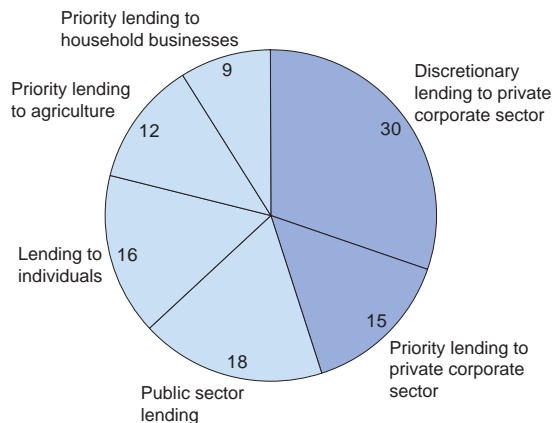
The 20 percent share of credit going to private sector “other” and the cooperative sector captures priority lending to SSI and agriculture. It includes priority SSI because 90 percent of loans included in private sector “other” are to “partnerships, proprietary concerns, and joint families.” The remainder goes to agriculture.

The results of this calculation show that the private corporate sector gets less than half of gross bank credit, and only two-thirds of this is granted on a discretionary basis (Exhibit C). Bank credit accounts for 74 percent of outstanding commercial credit.

Exhibit C

PRIVATE CORPORATE SECTOR ABSORBS 45 PERCENT OF GROSS BANK CREDIT, BUT ONLY 2/3 OF THIS IS GRANTED ON A DISCRETIONARY BASIS

Distribution of gross bank credit¹
100% = \$164 billion, FY 2004



¹ Total is based on gross bank credit by sector, which includes all lending.
Source: RBI; McKinsey Global Institute analysis

For the remaining types of credit, corporate bonds accrue to the private corporate sector, while private placements are split between the private corporate and public sector according to a four-year moving average of issuances. Finally, from the Public Enterprise Survey, we have information on government capital invested in public sector enterprises. We count this as commercial credit that accrues to the public sector, as the government must raise funds to supply this capital.

4. ESTIMATING SOURCES OF FUNDS FOR CORPORATIONS

In addition to commercial credit, we are interested in estimating the contributions of equity finance and retained earnings as sources of funds for private corporations in India. By comparing the distribution of these sources of funds across countries, we have an indication of how well the capital markets are serving companies in India relative to their counterparts elsewhere (see Exhibit 3.12). As discussed in the text, even though retained earnings are an important source of funds for all countries, they are even more important in India. Heavy reliance on internal funds is an indication that capital markets are not serving corporations as well in India as elsewhere.

To calculate the distribution of sources of funds for India and the other countries outside of the United States, we ranked publicly traded companies for each country by revenue from the universe of companies available in Bloomberg. This ranking was then divided into quartiles. From each quartile, we selected the top 40 companies. To calculate the distribution of sources of funds for the sample of 160 companies from each country, we computed annual gross equity and debt issuance and retained earnings between 2000 and 2005. The calculation in the United States was the same, except we used all publicly traded companies with revenue greater than \$500 million (excluding foreign firms that have issued American Depository Receipts).

5. CALCULATING THE COST OF FINANCIAL INTERMEDIATION

In general, the cost of financial intermediation is the difference between the cost of capital to the borrower and the risk-adjusted return for the saver (see Exhibit D). This is the amount that the financial system takes to cover the cost of its operations. For each instrument (bank loans, bonds, equity), the return to the saver is adjusted for risk in order to make returns from all instruments comparable.

Banking efficiency

Bank deposits are typically risk free. The cost of bank intermediation can therefore be estimated as the difference between the average lending and deposit interest rates. The opportunity in India can then be obtained by comparing this spread against the benchmark spread and multiplying by the amount of outstanding bank loans (Exhibit E).

Exhibit D

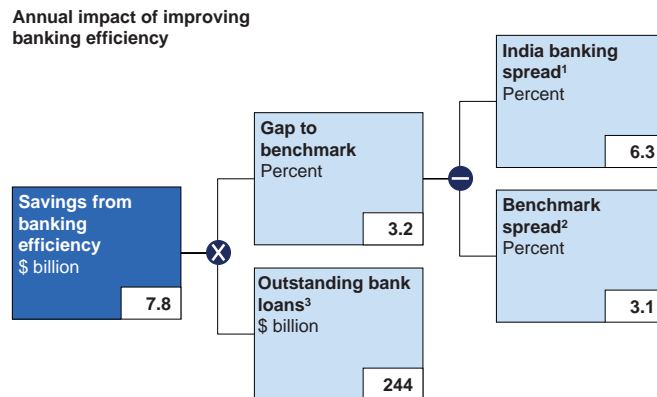
CALCULATING THE COST OF INTERMEDIATION

	A Cost to borrower	B Return to saver	C Risk-adjusted return to saver	A-C Cost of intermediation
Banking sector	Borrowing interest rate	Savings interest rate	Savings interest rate ⊖ Risk of private bank bankruptcy/closure	Interest rate spread ⊕ Risk of private bank bankruptcy/closure
Bond market	Bond interest coupon rate ⊕ Issuance cost ¹	Bond interest coupon rate ⊖ Trading commission ¹	Bond interest coupon rate ⊖ Default rate ⊖ Trading commission	Default rate ⊕ Issuance cost ¹ ⊕ Trading commission ¹
Informal lending	Borrowing interest rate	Lending interest rate	Lending interest rate ⊖ Risk of private bank bankruptcy/closure	Interest rate spread ⊕ Risk of private bank bankruptcy/closure
Equity market	Share of profits ⊕ Issuance cost ¹	Share of profits ⊖ Trading commission ¹	Share of profits ⊖ Bankruptcy risk ⊖ Trading commission	Bankruptcy risk ⊕ Issuance cost ¹ ⊕ Trading commission ¹

¹ Relatively small.
Source: McKinsey Global Institute analysis

Exhibit E

INCREASING OPERATING EFFICIENCY OF BANKS WOULD SAVE \$7.8 BILLION ANNUALLY



¹ Spread is between State Bank of India 30-day deposit rate and prime lending rate as of December 2005.
² Average for United States, South Korea, Malaysia, Singapore, Chile.
³ Total loans and advances on the balance sheet of scheduled commercial banks, March 2005.
 Source: GFS; S&P; EIU; RBI; NSE; IMRB; CRISIL; McKinsey Global Institute analysis

Informal lending

We do not have information on the cost of funds in the informal lending market, although based on government survey information, we estimate the differences between lending rates in the formal and informal markets as 2.7 percentage points.² We add this difference to the spread for commercial banks to obtain our estimate of the informal market lending spread.

There is also limited information about the size of the informal lending market in India. The 2005 McKinsey study *India Banking 2010* estimated the size of informal lending in rural India at approximately \$60 billion in 2002. This estimate was obtained by supplementing published information on lending by scheduled commercial banks, cooperatives, and regional rural banks in rural areas with interviews of branch managers of the State Bank of India, as well as customers of the bank. The interviews revealed that households and businesses in rural areas obtained approximately two-thirds of their lending through informal sources.³

To estimate the size of the rural informal lending market in 2004, we assume that informal lending has grown at the same 19 percent rate as outstanding credit granted by scheduled commercial banks in rural areas.⁴ This brings our 2004 estimate of the informal lending market in India to approximately \$85 billion. As in the case of banking, the opportunity available can then be obtained by comparing this spread against the benchmark spread and multiplying by the size of the informal lending market (Exhibit F).

Capital market efficiency

For debt securities, the only direct costs of intermediation for borrowers are the costs of issuance, while for savers they are trading commissions. Most of the time, these relatively small costs are outweighed by the default risk born by savers. For 2000–2004, CRISIL ratings estimates the default rate in India to be 2.3 percent. This is 50 basis points higher than the benchmark US default rate, which determines the size of the opportunity from increased efficiency in this market (Exhibit G).

2 NSS report no. 459: "Informal sector in India, 1999–2000 salient features."

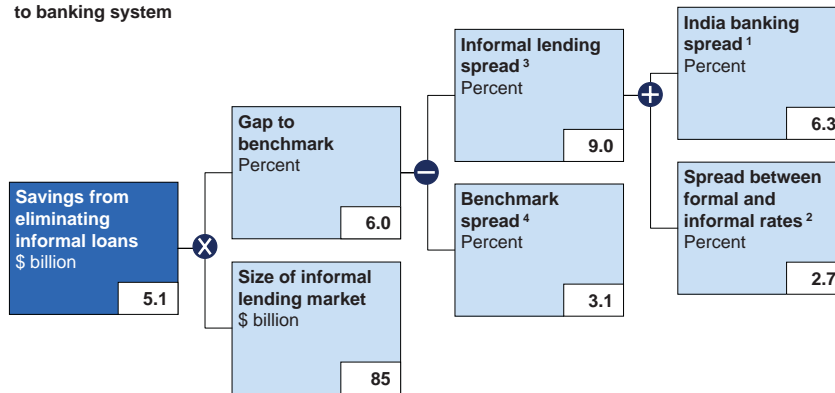
3 A 1997 study by PricewaterhouseCoopers estimated this to be as high as 78 percent.

4 RBI, "Population group-wise distribution of deposits and credit of scheduled commercial banks." This measure of overall credit grew more than 23 percent annually over this period.

Exhibit F

ELIMINATING THE INFORMAL LENDING MARKET WOULD SAVE \$5.1 BILLION ANNUALLY

Annual impact of moving informal lending to banking system



1 Spread is between SBI 30 day deposit rate and prime lending rate as of December 2005.

2 Informal sources include money lenders, business partners, friends/relatives, and others.

3 Assumes that informal lenders cost of funds is the same as for banks.

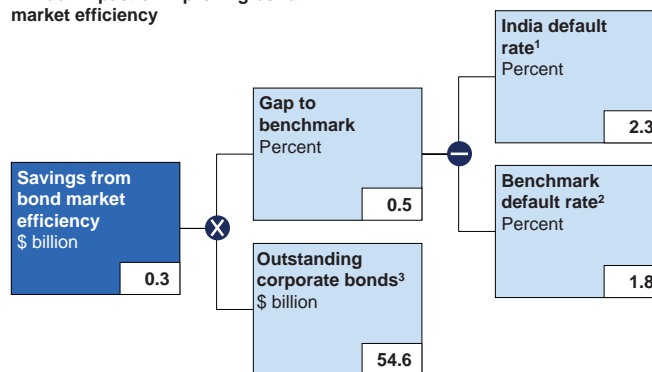
4 Average for United States, South Korea, Malaysia, Singapore, Chile.

Source: GFS; S&P; EIU; RBI; NSE; IMRB; CRISIL; NSS report no. 459: "Informal sector in India, 1999–2000 salient features"; India Banking 2010; McKinsey Global Institute analysis

Exhibit G

INCREASING OPERATING EFFICIENCY OF BOND MARKET WOULD SAVE \$0.3 BILLION ANNUALLY

Annual impact of improving bond market efficiency



1 Cost of intermediation is the default rate; estimate from CRISIL Ratings for 2000–2004

2 Average default rate in the United States

3 Total outstanding corporate bonds (\$10.9 billion) and private placements (\$43.7 billion) for financial and nonfinancial companies (including development banks). Stock of private placements are estimated as 4-year moving average of issuances.

Source: GFS; S&P; EIU; RBI; NSE; IMRB; CRISIL; McKinsey Global Institute analysis

One way we can measure the cost of equity market intermediation is through commissions on trades, the approach we use here. The NSE is at or near global best practice along this and other measures of stock market efficiency, so we have not included an estimate of potential efficiency gains in the stock market.

6. CALCULATING THE IMPACT OF SAVINGS MOBILIZATION AND CAPITAL ALLOCATION

To calculate the impact of savings mobilization and capital reallocation, we must estimate how much GDP would be generated if these funds were invested in the high-productivity private corporate sector. To do this, we use the incremental capital-output ratio (ICOR). This is a common metric that compares the growth in a country's capital stock to the growth in GDP. A ratio of 1 means that one new dollar of investment is required for each new dollar of GDP; a ratio of 2 would mean that two dollars need to be invested in the capital stock to grow the GDP by one dollar.

Calculating the ICOR

In theory, the ICOR is defined in terms of changes in the capital stock and is therefore calculated as the ratio of net investment to changes in GDP. In practice, the ICOR is almost always approximated by using gross investment. This is done because we often want to compare the impact of national savings across countries, which equates to gross investment. Furthermore, it is difficult to obtain consistent measures of depreciation across countries. We adopt this approximation in this report. Note that if we use net investment, the relative efficiency of investment across sectors does not change. However, using net investment results in much smaller ICORs, which nearly doubles the impact of savings mobilization and capital reallocation on GDP. Thus, adopting the gross investment approach also has the advantage of making our impact estimates conservative.

Two common ways to calculate the ICOR for a multiyear period are the ratio of investment over the change in GDP and the annual average of investment over GDP relative to economic growth (Exhibit H). We have adopted the first method, as we are interested in calculating the impact of new investment on GDP, and this formula provides a linear relationship between the two and maps directly to the growth model upon which the ICOR ratio is based. Thus, the ICOR by sector is estimated over a five-year period as the sum of gross investment divided by the total change in GDP (see Exhibit 3.4).

Exhibit H

POTENTIAL METHODOLOGY FOR THE CALCULATION OF THE ICOR¹ BASED ON GROSS CAPITAL FORMATION ON A MULTIYEAR BASIS

Absolute	$\text{ICOR}_{Y_1 - Y_N} = \frac{\sum_{(i=1..n)} \text{GFC}_i}{\text{GDP}_n - \text{GDP}_0}$
GDP-relative	$\text{ICOR}_{Y_1 - Y_N} = \frac{\left[\frac{\sum_{(i=1..n)} \frac{\text{GFC}_i}{\text{GDP}_i}}{n} \right]}{\left[\frac{\text{GDP}_n}{\text{GDP}_0} \right]^{1/n} - 1}$

ICOR_{Y₁-Y_n}: Incremental capital-output ratio between year 1 and year n.

GDP_i: Real gross domestic product for year i.

CCF_i: Real gross capital formation for year i.

¹ Incremental capital-output ratio

Source: McKinsey Global Institute analysis

Potential impact on the level of GDP

In any given year, the impact of reallocating financial capital to the private corporate sector is calculated by dividing the amount of financial capital shifted by the difference in ICORs between sectors (see Exhibit 4.5). The impact of new savings mobilized is calculated using the ICOR in the private corporate sector (see Exhibit 4.6).

7. ESTIMATING THE IMPACT OF REFORM ON GROWTH

To estimate the impact of capital reallocation and savings mobilization on growth, we conducted two exercises. The first was a historical counterfactual to calculate what growth might have been if investment was more efficient, the financial sector was more efficient, and more savings was mobilized. Second, we estimated alternative growth paths going forward under different assumptions of capital efficiency and savings.

Historical counterfactual

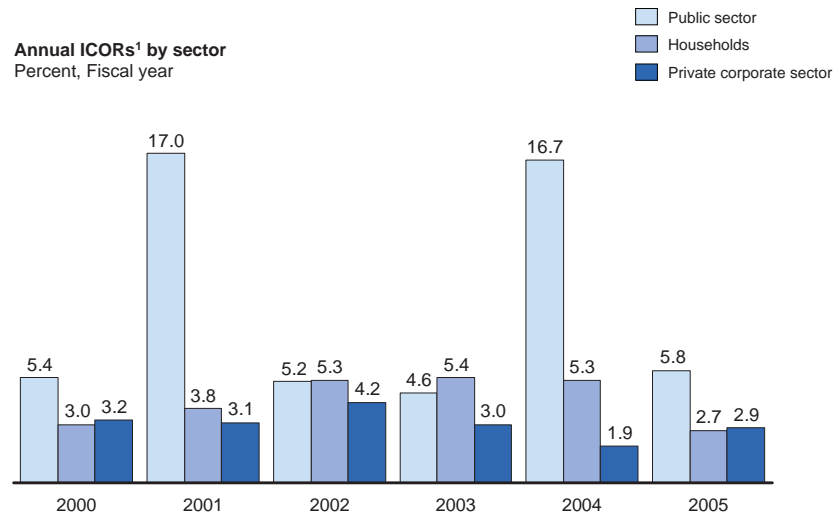
We estimated the impact of more efficient investment by assuming that investment by the public sector and households was as efficient as the private

corporate sector for the years 1999–2004 (Exhibit I). To calculate the impact on growth, we rearranged the identity for ICOR and divided both sides by lagged GDP to produce the following formula:

$$\frac{GDP_t - GDP_{t-1}}{GDP_{t-1}} = \frac{GCF_t / GDP_{t-1}}{ICOR_t}$$

Exhibit I

MORE EFFICIENT USE OF CREDIT COULD RAISE AVERAGE ANNUAL GROWTH BY 2.5 PERCENTAGE POINTS



* Incremental capital-output ratios.
Source: CSO; RBI; McKinsey Global Institute analysis

More efficient investment alone would have raised average GDP growth from 6.1 percent between 1999 and 2004 to 8.5 percent, all else equal (see Exhibit 4.7).

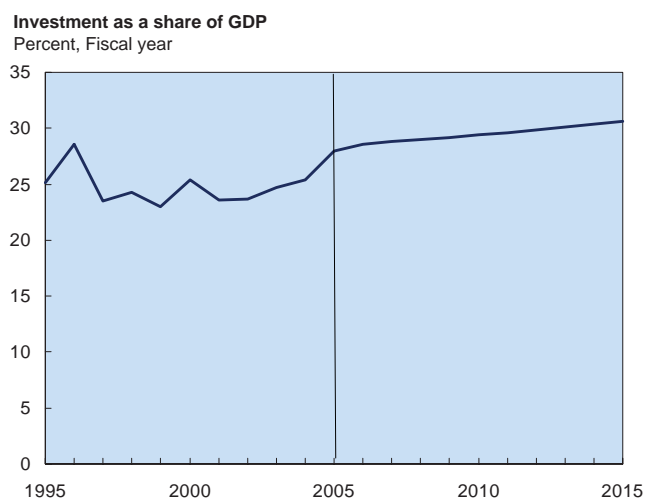
The efficiency gains from financial sector reform (3.2 percent of GDP) and higher savings mobilization (1 percent of GDP) also would have raised growth. To estimate the impact of these changes, we assume the resources freed up by these actions are invested at the same rate as all other income generated by the economy, the investment share of GDP. If these funds were invested as efficiently as private corporate sector investment, growth would have averaged 8.8 percent annually (see Exhibit 4.8).

Growth projections

To estimate the impact of reform on growth going forward, we use a forecast of the investment share of GDP, which is expected to inch over 30 percent in the years ahead (Exhibit J). For the baseline projection, we estimate growth between 2005 and 2014 by dividing the investment share of GDP in each year by the average 1999–2004 ICOR of 4.8. This projection shows that the Indian economy would grow at 6.5 percent compound annual rate over the next ten years.

Exhibit J

INVESTMENT SHARE OF GDP IS FORECAST TO RISE



There are two steps to estimating the impact of more efficient investment, financial market reform, and increased savings mobilization. First, we add the additional resources freed up by financial sector reform (3.2 percent of GDP) and higher savings mobilization (1 percent of GDP) in the same way as in the historical counterfactual. This raises the overall investment share of GDP by just over one percentage point annually. For the reform projection, we estimate growth between 2005 and 2014 by dividing the modified investment share of GDP in each year by an ICOR of 3.3. This is what the economy-wide average ICOR would have been between 1999 and 2004 if the public sector and households had invested at the same level of efficiency as the private corporate sector. The reform projection implies that the Indian economy could grow at a compound annual rate of 9.4 percent a year for the next ten years (see Exhibit 4.9).

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