

Credit, Structure and Double Financial Repression: A Diagnosis of the Banking Sector

05
CHAPTER

"The nature of transactions between creditors and debtors on which the welfare of the kingdom depends, shall always be scrutinized," Kautilya in Arthashastra around 3rd century BC.

5.1 INTRODUCTION

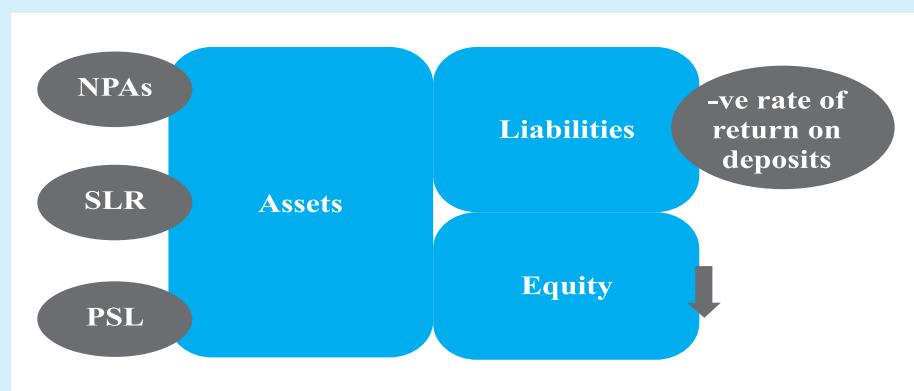
The policy discourse around banking in India has thrown up many specific ideas and challenges recently, prominent amongst them being the problem of stressed and restructured assets, the difficulty in acquiring the resources to meet the looming Basel III requirements on capital adequacy, and the need for governance reform (see for example the Nayak Committee Report).¹ Stepping back from these proximate issues allows a deeper analytical diagnosis of the problems of Indian banking which in turn provide the basis for more calibrated solutions.

We start with the size of credit in India. In terms of a number of indicators, the Indian financial sector does not appear to be an outlier. The overall credit-GDP ratio as well as the proportion of total credit accounted for by the banking sector is not out of line taking account of India's level of development. Moreover, its size hasn't increased dramatically over time compared to other countries. While the boom years of the last decade both spawned and were fed by a credit boom, originating in the public sector banks, irrationally exuberant behaviour was not out of line with similar experiences in other countries.

Rather, the challenges in the Indian banking system lie elsewhere and fall into two categories: policy and structure.

The policy challenge relates to financial repression. The Indian banking system is afflicted by what might

Figure 5.1: Double Financial Repression on the Indian banking balance sheet



NPA: Non-Performing Assets (bad loans), SLR: Statutory Liquidity Ratio, PSL: Priority Sector Lending

¹ Recapitalisation requirements for Public Sector Banks as estimated by Krishnamurthy Subramanian (ISB and member of Nayak Committee) range from ₹ 9.6 lakh crore to ₹ 4.8 lakh crore depending on the assumptions on forbearance and the ratio of restructured assets turning into NPAs.

be called “double financial repression” (Figure 5.1). Financial repression on the asset side of the balance sheet is created by the statutory liquidity ratio (SLR) requirement that forces banks to hold government securities, and priority sector lending (PSL) that forces resource deployment in less-than-fully efficient ways. Financial repression on the liability side has arisen from high inflation since 2007, leading to negative real interest rates, and a sharp reduction in households’ financial savings. As India exits from liability-side repression with declining inflation, the time may be appropriate for addressing its asset-side counterparts.

The structural problems relate to competition and ownership. First, there appears to be a lack of competition, reflected in the private sector banks’ inability to increase their presence. Indeed, one of the paradoxes of recent banking history is that the share of the private sector in overall banking aggregates barely increased at a time when the country witnessed its most rapid growth and one that was fuelled by the private sector. It was an anomalous case of private sector growth without private sector bank financing. Even allowing for the irrational exuberance of the Public Sector Banks (PSBs) that financed this growth phase, the reticence of the private sector was striking.

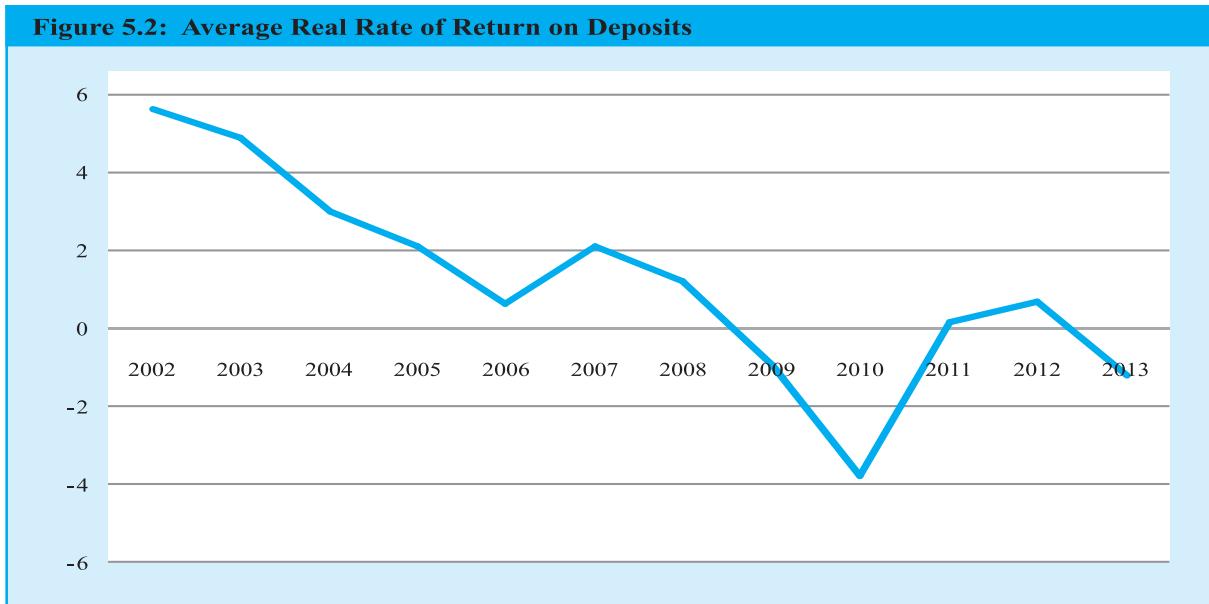
Finally, even within the public sector banks there is sufficient variation in performance. Viewing public sector banks as one homogenous block would be a mistake. Rather than adopting a one-size-fits-all approach, there needs to be greater selectivity in relation to recapitalisation, exit, and the level of government ownership.

The chapter ends with four key policy recommendations which we call the four Ds: *deregulate* (*in relation to financial repression*), *differentiate* (*within the PSBs*), *diversify* (*within and outside banking*), and *disinter* (*to create more efficient exit*).

5.2 FINANCIAL REPRESSION ON THE LIABILITY SIDE

Figure 5.2 plots the average rate of return on deposits in all scheduled commercial banks in India over the last 14 years. These are calculated as the difference between the weighted average return on term deposits as reported by the Reserve Bank of India minus the CPI-IW inflation rate for that year as reported by the Central Statistics Office. High inflation and limited return on banks’ assets has ensured that the rates maintained by banks fetched households a negative real rate of return on deposits.

Figure 5.2: Average Real Rate of Return on Deposits



Source : RBI and Central Statistics Office

Table 5.1: Savings as a percentage of GDP

	2004-05	2009-10	2010-11	2011-12	2012-13	2013-14
Household (Financial)	10.1	12.0	9.9	7.0	7.1	7.2
Household (Physical)	13.4	13.2	13.2	15.8	14.8	10.6
Household (Total)	23.6	25.2	23.1	22.8	21.9	17.8
Gross	32.4	33.7	33.7	31.3	30.1	30.6

Source : Central Statistics Office. Caveat: New method employed in 2013-14.

Household savings continue to be the largest contributor to gross capital formation. Household savings has two components- financial and physical, where the latter typically does not lend itself easily to financial intermediation in the economy. As can be seen from Table 5.1, the contribution of physical assets to household savings has stood stubbornly above 60 per cent all through the last decade.

5.3 FINANCIAL REPRESSION ON THE ASSET SIDE

Financial repression on the asset side has had a long history in India. As the state expanded its role in the economy and especially the financial sector in the 1970s, new rules had to be introduced to set aside bank capital to provide for it. Two key legacies of this piece of history are the Statutory Liquidity Ratio and Priority Sector Lending.

5.3.1 Statutory Liquidity Ratio

The Statutory Liquidity Ratio is a requirement on banks to hold a certain share of their resources in liquid assets such as cash, government bonds and gold. In principle, the SLR can perform a prudential role because any unexpected demand from depositors can be quickly met by liquidating these assets.

SLR requirements have traditionally been high. From 38 per cent in the period before 1991, there was a dramatic decline to about 25 per cent at the end of the 1990s. Since then however, the number has hovered around the quarter century mark, only

recently falling to 22 per cent. As of Feb 4, 2015 the minimum requirement is 21.5 per cent of total assets. Banks typically keep more than the required SLR, the current realised SLR is in fact over 25 per cent.² In practice, the SLR has become a means of financing (at less than market rates presumably) a bulk of the government's fiscal deficit, suggesting that SLR cuts are related to the government's fiscal position.³

Box 5.1 presents the case for gradually reducing this requirement- both to free up capital for the banks and to make the market for government bonds more liquid.

5.3.2 Priority Sector Lending (PSL)

A key component of equality of credit in India has been the so called "priority sector lending". All Indian banks are required to meet a 40 per cent target on priority sector lending. The law states that all domestic commercial banks, public or private, have to lend 40 per cent of their adjusted net bank credit (ANBC) or credit equivalent amount of their off balance sheet exposure—whichever is higher—to the priority sectors, and number for foreign banks (with more than 20 branches) is 32 per cent. Further, public sector banks have clearly defined rules they have to follow in the subcategories- agriculture, micro and small enterprises, education, housing, export credit and others. The most important amongst them is that 45 per cent of all priority sector lending must be made to agriculture.

² This anomaly could probably be the result of the high level of stressed assets which encourage overinvestment in risk free government securities to maintain a respectable risk-weighted capital adequacy ratio. As the financial sector addresses this problem and the economy creates lending opportunities, this anomaly should be corrected.

³ Vishwanathan, Vivina: "DYK: Difference between CRR and SLR," Livemint, June 2014

Box 5.1 : Reducing the Statutory Liquidity Ratio

The SLR is a form of financial repression where the government pre-empts domestic savings at the expense of the private sector. Real interest rates are lower than they would be otherwise.

Recently, the RBI has taken commendable and gradual steps in lowering the SLR from 25 per cent to 21.5 per cent. The question is whether the ambitions in this area should be ratcheted up. Three developments make this question particularly salient.

The argument has always been that SLRs can only be reduced if the government's fiscal situation improves. That is only partly correct because stocks rather than flows should condition SLR reform. India's fiscal deficit situation still needs consolidation but the public debt situation has been steadily improving and will continue to improve because of India's growth and inflation compared to borrowing costs. Overall indebtedness (center and states) has declined from over 80 percent to 60 percent in a decade. And this trend will continue because favorable debt dynamics will continue to operate in the future as long as growth remains above 8 percent.

This creates the first opening for phasing down the SLR over time. To be sure the government's borrowing costs will go up but the magnitudes are likely to be small for two reasons: first, costs will rise only on debt that is maturing, which over the next five years is about 21.1 per cent of total outstanding debt; and second, the macro-environment and progress in durably reining in inflation may favor lower real interest rates.

The second reason relates to the health of the banks. As interest rates decline, there is scope for capital appreciation for the banks that hold the bulk of government securities. SLR reductions could allow them to offload G-secs and reap the capital gains which could help recapitalise them, reducing the need for government resources, and helping them raise private resources. (This is a better and cleaner way of recapitalizing the banks than to allow banks to mark their G-secs to market and realize the accounting profits). To avoid any moral hazard issues, gains from recapitalization should go first towards provisioning against NPAs, and only the surplus should go towards being counted as capital.

The third reason relates to the recent experience of infrastructure financing. PPP-based projects have been financed either by public sector banks or through foreign currency-denominated debt (ECBs). The former has proven tricky to say the least and the latter contributed to decline in corporate sector profitability especially in the infrastructure sector: investors borrowed in dollars and their revenues were predominantly in rupees so that when the rupee depreciated their profitability and balance sheets were adversely affected.

The time is therefore ripe for developing other forms of infrastructure financing, especially through a bond market. But SLRs have also stymied the development of government bond markets which in turn stifles the development of corporate bond markets. Reducing SLRs are therefore critical to finding better sources of infrastructure financing. The end-point of reform should be to combine the SLR and the Capital to risk weighted assets ratio (CRAR)^a into one liquidity ratio set at a desirable level depending on international norms.

^a Capital to risk weighted assets ratio (CRAR) is arrived at by dividing the capital of the bank with aggregated risk weighted assets for credit risk, market risk and operational risk.

To be sure, the social and economic objectives that underlie PSL make it a salient feature of banking in India. But like in the case of subsidies and direct transfers, greater attention must be given to ensuring that the deployed means are the most effective to achieving desired ends. There is hence greater need for evidence-driven policy and Box 5.2 below illustrates this point in relation to agricultural lending.

In this Box, we draw on the results from Ramakumar and Chavan (2014) and summarize striking findings on agricultural credit. The main takeaway is that a much more careful approach needs to be applied to defining what constitutes priority sector and closer monitoring of how these funds are disbursed. This is especially important because a 40 per cent requirement absorbs a large fraction of the banks' resources.

Box 5.2 : Agricultural Credit: Scratching the Surface of Rising Numbers*

1. Total agricultural credit has increased substantially since the turn of the century. The annual rate of growth that averaged 6.8 per cent in 1981-1991, was at 17.8 per cent for 2001-2011. In nominal terms, agricultural credit has grown more than 8 times in the last 15 years compared to the facts that agriculture's share in GDP has remained almost constant, and that significant urbanisation has occurred in this time.

Period	Annual Growth Rates		
	Credit to agriculture	Total Bank Credit	Agricultural GDP
1981-1991	6.8	8.0	3.5
1991-2001	2.6	7.3	2.8
2001-2011	17.8	15.7	3.3

2. There has been a sharp increase in the share of large-sized loans in agricultural credit as the table below shows which warrants scrutiny.

Year	Distribution of direct advances (per cent) along benchmark credit limits in rupees			
	< 2 lakhs	> 2 lakhs	< 10 lakhs	> 10 lakhs
1990	92.2	7.8	95.8	4.2
1995	89.1	10.9	93.6	6.4
2000	78.5	21.4	91.3	8.7
2003	72.6	27.4	87.5	12.5
2005	66.7	33.4	88.1	11.9
2011	48.0	52.0	76.2	23.8

3. There has been a substantial increase in share of agricultural credit outstanding that emanates from urban and metropolitan areas, which is deeply puzzling.

4. There has been a concentration of disbursal of agricultural credit from January to March, which are generally not the normal periods of borrowing by farmers. This shows that in order to meet priority sector lending targets banks possibly raise their lending activity in months when farmers may not necessarily need it the most.

5. There is a sharp decrease in the share of long-term credit in total agricultural credit. Thus, the portion of agricultural credit that was used for capital formation in agriculture has become small. The number has come down from over 70 per cent in 1991-92 to about 40 per cent in 2011-12.

6. The implication of this evidence is that lending to agriculture may be excessive and going predominantly to large farmers. It is not being used for agricultural capital formation. Perhaps most significantly a large share of it may not be going to core agricultural activities at all.

*Points 1 to 5 are based on the analysis of Ramakumar and Chavan (2014), "Bank Credit to Agriculture in India in the 2000s: Dissecting the Revival," *Review of Agrarian Studies*.

5.4 A COMPARATIVE ANALYSIS OF BANKING AND CREDIT

5.4.1 Is India credit-addled and over-banked?

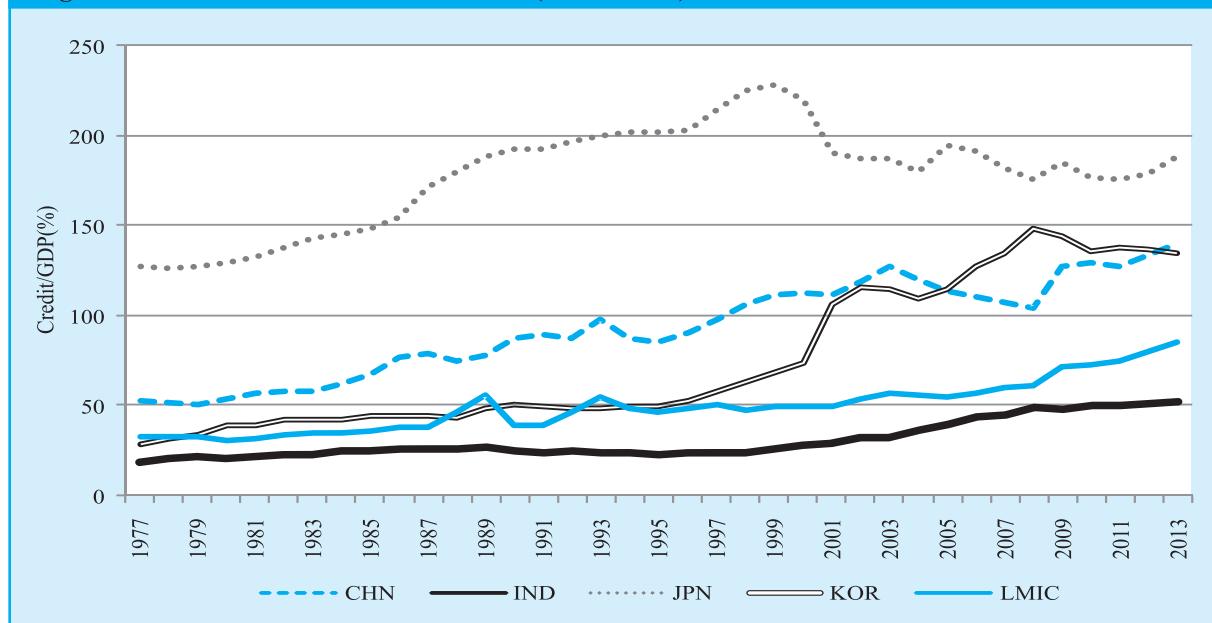
India has witnessed a credit boom over the last decade⁴, with the share of credit-GDP increasing

from 35.5 percent in 2000 to 51 percent in 2013, with the bulk accounted for by bank lending. Is this unusual? We answer this question in four ways.

First, we show the evolution over time in credit-GDP ratios in India and selected other countries (Figure 5.3) (as defined by the World Bank).⁵ The

⁴ See "Corporate Vulnerabilities in India and Banks' Loan Performance," IMF Staff Working Papers (2014), and "House of Debt," Credit Suisse Research (2013).

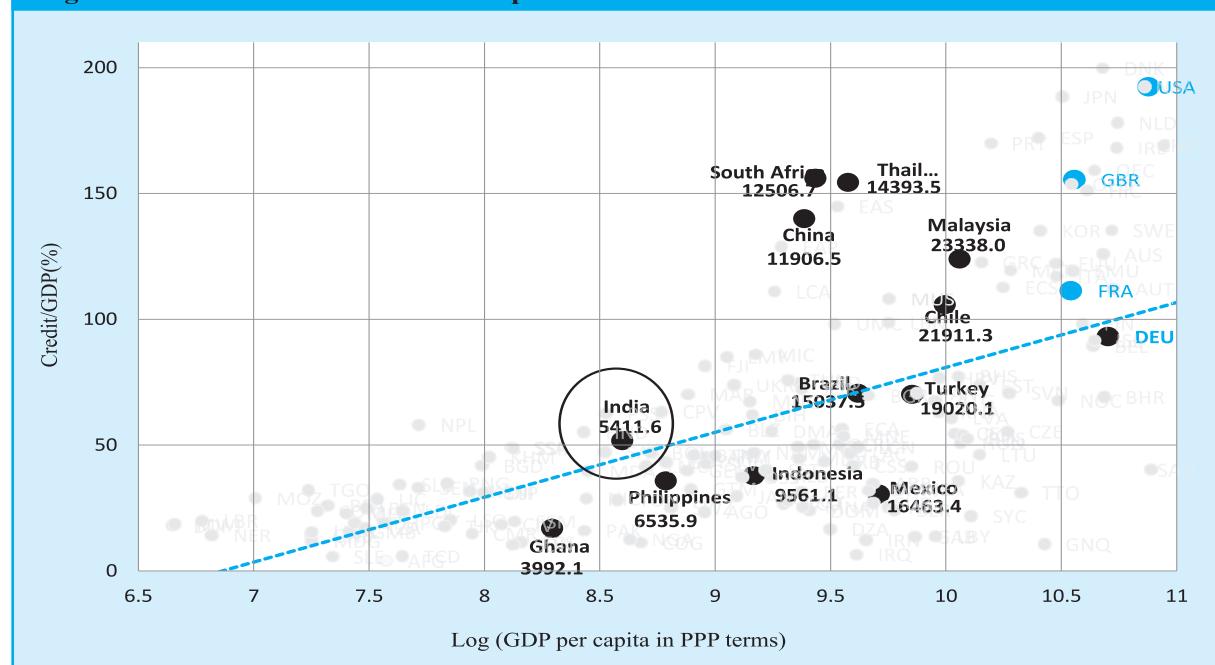
⁵ The graphs uses World Bank's domestic credit to private sector, defined as financial resources provided to the private sector by financial corporations, such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment.

Figure 5.3: Domestic Credit to GDP Ratio (Time Series) India below Low Middle-Income Countries

Source: World Bank Databank. Note: LMIC stands for low and middle income countries.

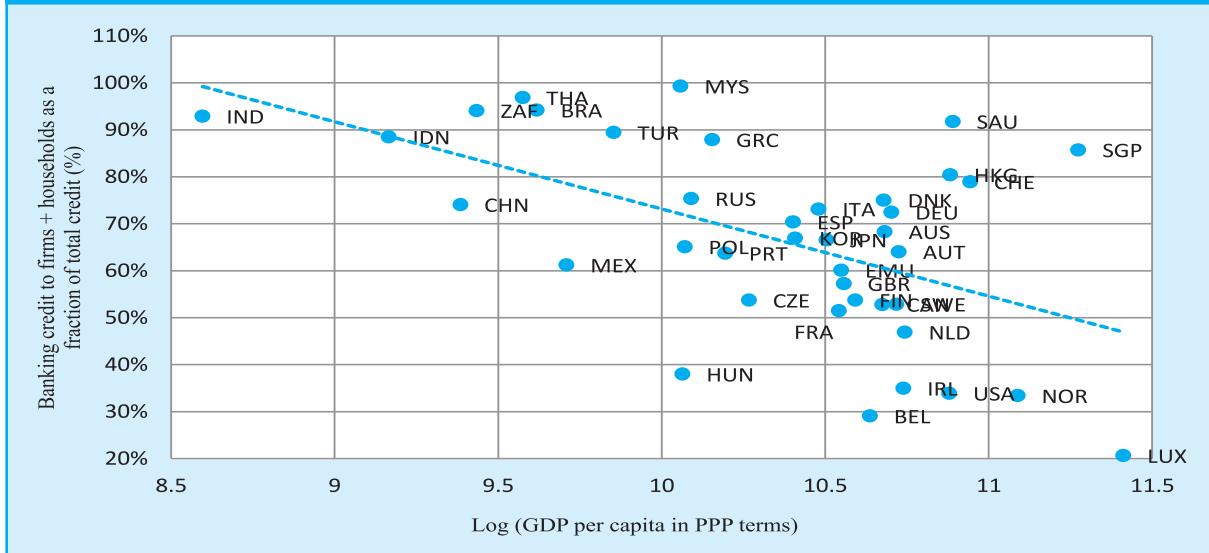
level of credit is lower than most countries nor has it increased more rapidly. Next we undertake a cross-country comparison plotting this same indicator against a country's level of development using the log of per capita GDP in purchasing power parity (PPP) terms as a proxy

(Figure 5.4). As countries become richer, they tend on average to see a rise in credit, reflected in the upward sloping trend line.⁶ But again, India is close to the trend line, indicating that for its level of development, credit levels are reasonable.

Figure 5.4: Domestic Credit to Per-capita GDP for 2013-India Placed Well

Source : World Bank Data

⁶ Note that the trend line drawn for the entire set of 176 countries in the World Bank data set.

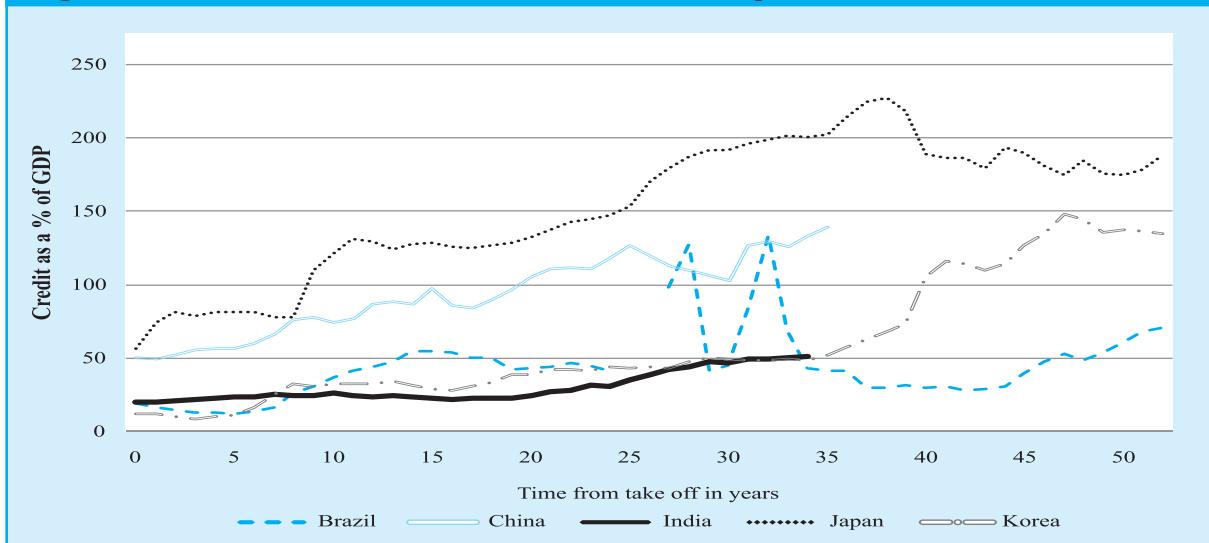
Figure 5.5: Banking Credit as a Fraction of Total Credit for 2014

Source : Bank of International Settlements

Next we ask whether India is over-banked. In Figure 5.5 we plot the share in total credit in the economy that is accounted for by banks against a country's level of development.⁷ The trend line is downward sloping suggesting that banking should shrink in size over the course of development relative to other sources of funding such as capital markets. Here too, India is well placed, in fact it is below the trend line. India is

neither over-banked nor are capital markets too small at this stage of development. That will have to change over time and the policy conditions should facilitate that transition but for the moment India is not an outlier.

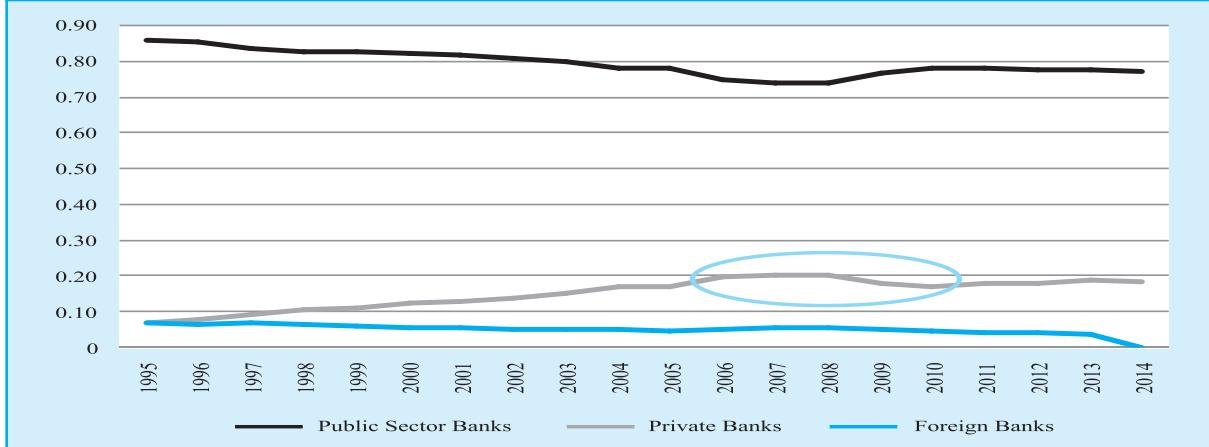
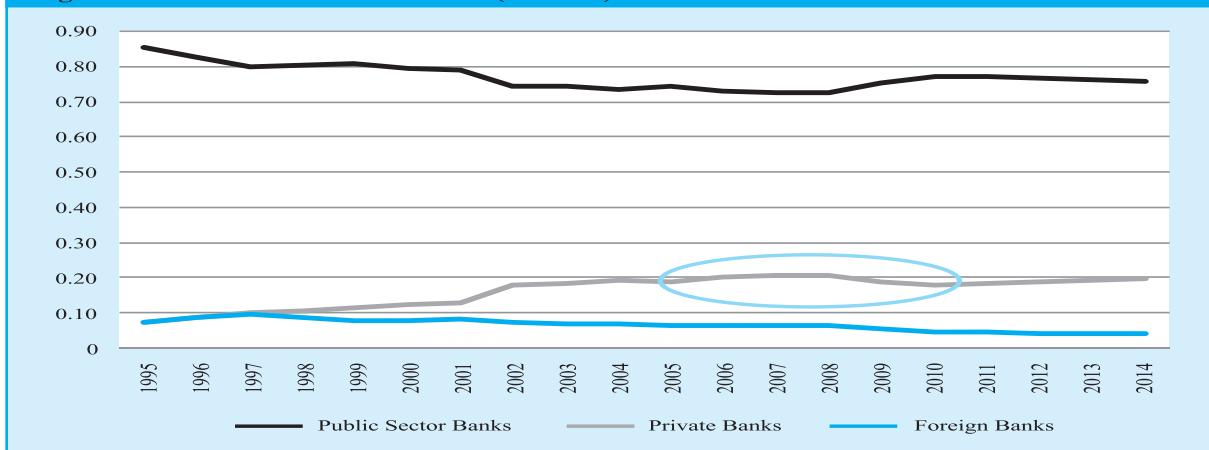
Finally, it is worth asking, whether the Indian banking and financial system has been especially irresponsible and imprudent in the growth phase.

Figure 5.6: Domestic Credit to GDP Since Take-off-India placed well

Source : World Bank Databank

Notes : Years of takeoff. Brazil, Japan and Korea: 1961, China: 1978, India: 1979.

⁷ As defined by the Bank of International Settlements, this consists of "credit to non-financial corporations (both private-owned and public-owned), households and non-profit institutions serving households as defined in the System of National Accounts 2008."

Figure 5.7A: Ratio to total deposits (fraction)**Figure 5.7B: Ratio to total advances (fraction)**

Source : RBI

To answer this, we plot the evolution of credit-GDP in take-off time (Figure 5.6). For each country, the starting point is when its growth started to accelerate. The chart shows that India's credit bubble was not worse than the experience of countries during comparable times. Other countries such as Japan and China saw faster credit growth during boom years. Thus, even in the last phase of rapid credit growth during the 2000s, the Indian financial system was no more irrationally exuberant than those around the world.

This evidence leads naturally to the question of what then is the problem on the structural side.

5.4.2 Is there adequate competition?

A primary concern of the health of the banking sector in India has been lack of sufficient internal competition. Private banks have slowly been brought into the arena since 1990. It is important to note that India's approach was not privatisation

of public sector banks, rather it was based on allowing entry of new private banks. This strategy worked reasonably well in the telecommunication and civil aviation sectors but did it work in banking? The results have been mixed.

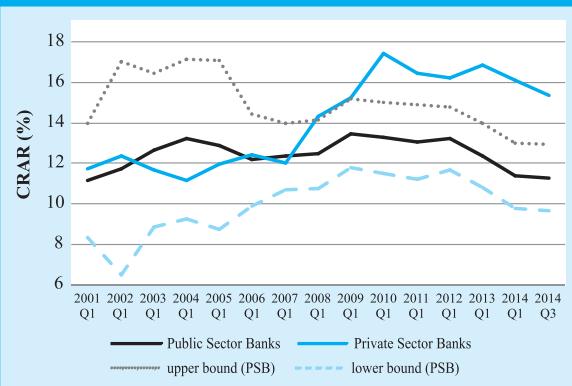
Figure 5.7 A and B show that India saw a steady rise in the size of private sector banks till 2007 both in relation to deposit and lending indicators. Thereafter, the process slowed considerably (and of course in the aftermath of the Lehman crisis, there was a flight to safety toward the PSBs).

So, one of the paradoxes of recent banking history is that the share of the private sector in overall banking aggregates barely increased at a time when the country witnessed its most rapid growth and one that was fuelled by the private sector. It was a case of private sector led growth without private sector bank financing. Even allowing for the irrational exuberance of the PSBs that financed

this growth phase, the reticence of the private sector was striking.

The question of competition extends to other sources of funding as well. Figure 5.5 suggested that India's size of the banking is not too large relative to the level of development, suggesting that that level of competition from capital markets is in line with a cross country comparison. Of course, over time, if India grows at 8 percent a year for the next twenty years, a rapid shift in the composition of India's financial sector away from banking is desirable. This shift will encourage transparency and better pricing of corporate risk.

Figure 5.8A: Banking Indicators: CRAR



5.5 Are Public Sector Banks uniform in performance?

How much variation in performance exists within the public sector banks and between the public sector and private sector banks? To answer this question, Figure 5.8 plots the time series of four key banking indicators for public and private sector banks- CRAR, Leverage Ratio, Return on Assets and Non-performing + Restructured Assets.⁸

In addition to the weighted average numbers, the figure also plots a 95 per cent confidence interval for the public sector banks (the upper line refers to the upper confidence bound and the lower line refers to the lower confidence bound). Note that

Figure 5.8B: Banking Indicators: Leverage Ratio

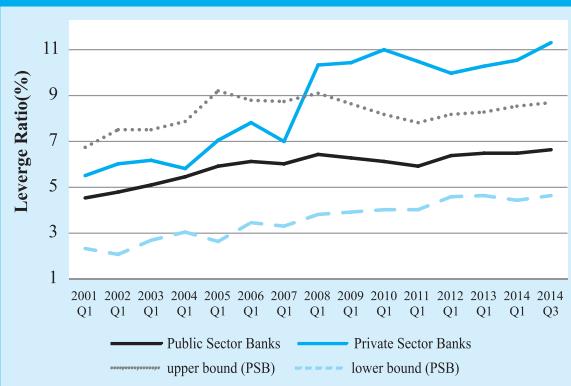
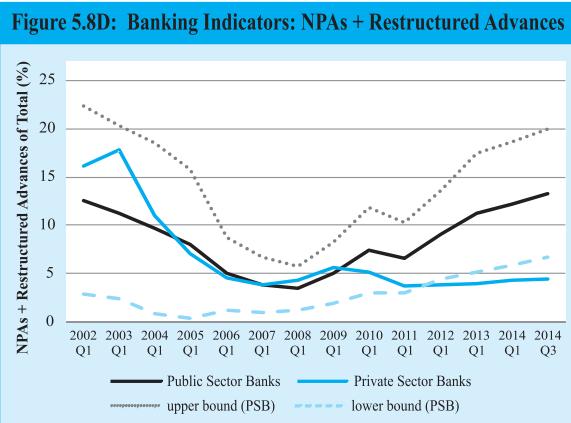
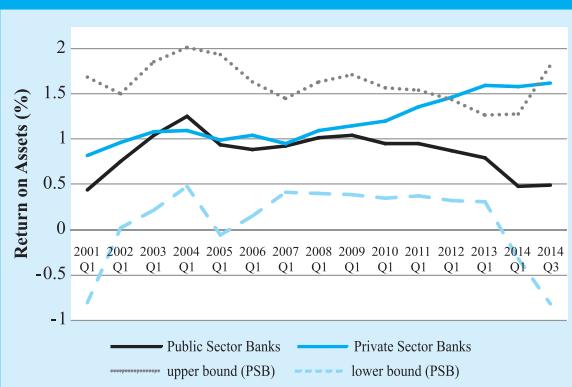


Figure 5.8C: Banking Indicators: Return on Assets



except for NPAs, the higher the number, the better the indicator value.⁹ The figures show that there is a lot of variation within the public sector banks. In numerical terms, the leverage ratio for the best bank is about 1.7 times more than for the worst, and the Gross NPAs plus restructured assets are 4 times more for the worst bank than the best.

Box 5.3 : Leverage Ratio

One of the legacies of the Great Recession (2008-2013) in the West has been active soul searching for adequate measures of risk and safe capital in the banking system. Almost all stress tests formerly were based on ratio of a risk weighted measure of capital to the total assets. In India this avatar, called CRAR- Capital to Risk (Weighted) Assets Ratio, has been the dominant measure of capital adequacy for bank stability in policy and popular discourse.

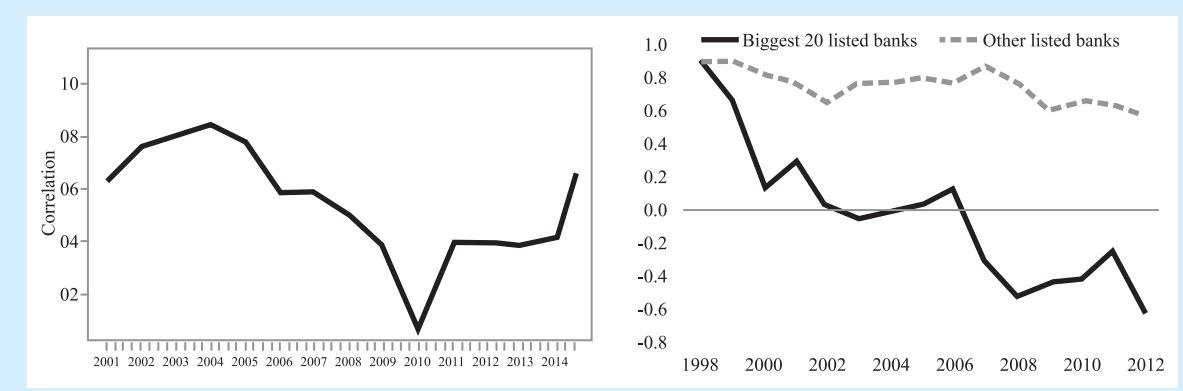
There is however growing international discontent with the measure because it failed to capture risk appetite before the financial crises in the US and in Europe. For this reason the focus is shifting to giving more weight to the Leverage Ratio. Defined by the Reserve Bank of India as the ratio of total assets to total capital, the international definition, for example as laid out by the Bank of International Sentiments, is typically the inverse. We will use the international definition.

A study by prominent economists, Pagano et all (2014), on the European banks states ‘While large banks’ leverage ratios fell between 2000 and 2007, the regulatory ratio – Tier 1 capital to risk-weighted assets – remained relatively stable. The median Tier 1 capital ratio was around 8 per cent in each year between 1997 and 2007 – a period over which the median leverage ratio fell by half. These insights reflect increasing divergence between book and regulatory measures of leverage. These two measures were highly correlated in the 1990s, as one would expect. But the correlation between them broke down in the early 2000s for the largest banks. By 2012, the correlation had turned strongly negative. Remarkably, a negative correlation implies that banks that were more capitalised according to the regulator had lower equity-to-asset ratios.”

Why did this happen? Simple arithmetic implies that the ratio of total assets to risk weighted assets diverged over time. The risk weights were no longer doing their job!

Figure below plots the time series of the correlation of the two indicators- CRAR and Leverage Ratio for Europe and India. In Europe, the correlation has steadily gone south over the last decade with alarmingly negative numbers for the last few years. For the public sector banks in India the correlation of the average of last three years of CRAR and Leverage Ratio stands at 0.45, which is good but definitely not great. In fact as the figure shows the correlation dipped to less than 0.1 in 2010.

Figure: Correlation Between CRAR-Leverage Ratio for Indian PSBs (lhs) & Europe (rhs)

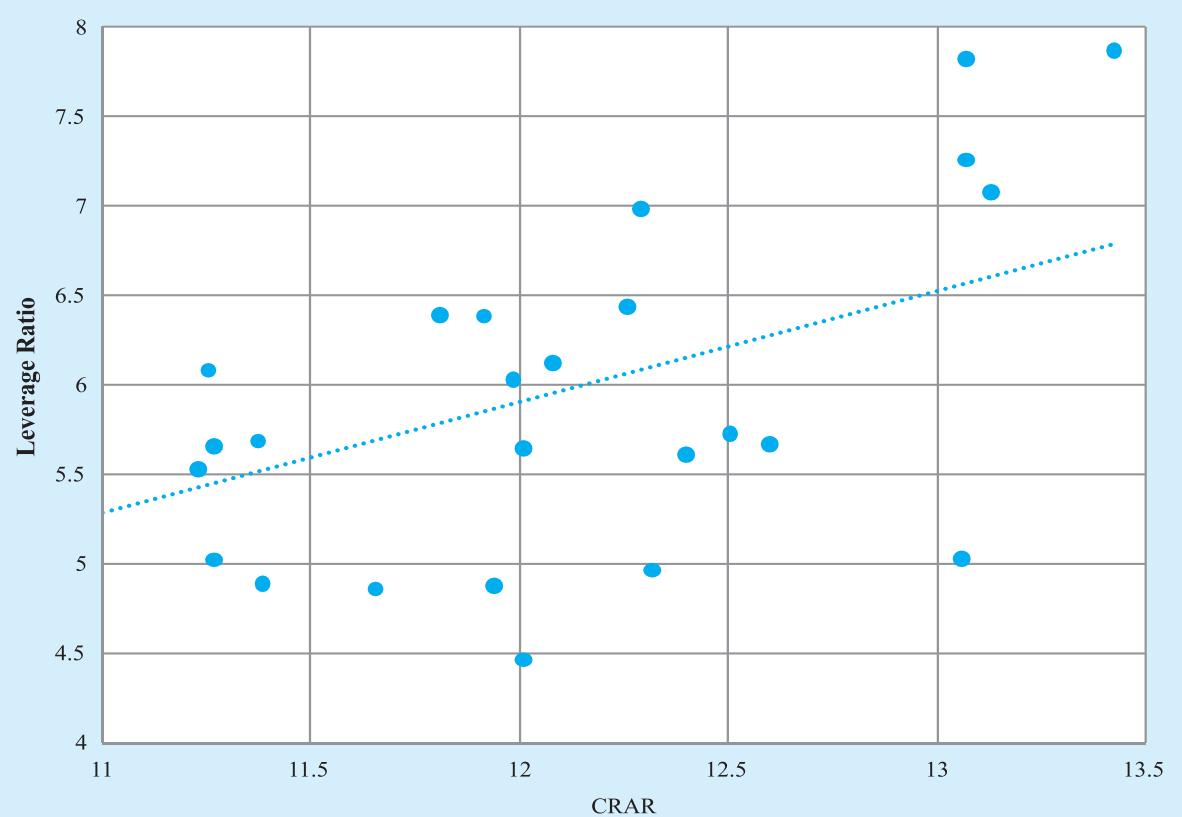


Source: RBI, Bloomberg and Pagano et all (2014)^a

⁹ The upper and lower lines represent the second or third best and worst banks, respectively for CRAR, Leverage Ratio, Return on Assets, and the reverse for NPAs.

It is also important to note that the best amongst the public sector banks are often performing less than the private sector average, although this fact should be seen against the greater social obligations imposed on the PSBs.

There are two other key things to notice in Figure 5.8. First, the variation in the Leverage Ratio is

Figure: Scatter Plot of Leverage Ratio and CRAR (3 year averages, 2012-2014) for PSBs

Source: RBI

The next Figure below shows a scatter plot for the last three year average of CRAR and Leverage Ratio for all public sector banks in India. As can be seen the trend-line is positively sloped which is good news. However, there are some worrying outliers that must be examined imminent.

The scatter plot Figure also shows the average of Leverage Ratios for public sector banks varies from 7.8 to 4.5. Admati and Hellwig in a new book called “*Bankers New Clothes*” argue that at 3 per cent the bank will go bankrupt if its assets loose more than 3 per cent in value. Banks themselves would never grant loan to a firm that only had only 3 per cent effective equity.^b They propose a much higher leverage ratio in excess of 10, even 15 per cent.

It is important to note that if a bank has a moderate-low leverage ratio, and excellent return on assets and negligible NPAs, the leverage ratio is less of a concern. But, this changes dramatically when there is a substantial quantity of toxic loans on its books.

There are at least two reasons why we should focus on the leverage ratio in India. First, as the European and indeed Indian experience shows, the CRAR can be a very poor indicator of stability, especially in adverse situations when risk weights loose meaning and value. More important, given weak governance systems within banks and the difficulty of regulating them from the outside, it is difficult to know how the risk weights are being assigned. This becomes more important because of the size of stressed assets. In other words, today with weak institutions and sizable stressed assets, there is an even greater premium on transparency in India which a leverage ratio provides.

Indian regulators and policymakers should therefore elevate the role of the leverage ratio in financial stability and soundness assessments.

^a Pagano M, V Acharya, A Boot, M Brunnermeier, C Buch, M Helwig, S Langfield, A Sapir, and L van den Burg (2014), *Is Europe Overbanked?* Report of the Advisory Scientific Committee, European Systemic Risk Board, June.

^b Admati, Anat, and Martin Hellwig. 2013. *The Bankers' New Clothes: What's Wrong with Banking and What to Do about It.* Princeton University Press.

much more than in CRAR. And, second the return on assets has declined and stressed assets loans have increased to worrying levels with substantial variation across banks. On the former, Box 5.3 presents the case, especially strong for India, for using the leverage ratios to measure, test, and monitor financial stability almost as much as, if not more than, the CRAR ratio.

5.6 Policy Implications

To summarize, we propose the 4Ds of policy going forward- deregulate, differentiate, diversify and disinter.

◆ *Deregulate*: As the banking sector exits the financial repression on the liability side, aided by the fall in inflation, this is a perfect opportunity to relax asset-side repression. First, as described in Box 5.1, SLR requirements can be gradually relaxed. This will provide liquidity to the banks, depth to the government bond market, and encourage the development of the corporate bond market. The right sequence would be to gradually reduce SLR and then provide incentives for a deeper bond market. Second, PSL norms can be re-assessed. There are two options: one is indirect reform, bringing more sectors into the ambit of the PSL, until in the limit every sector is a priority sector; the other is to redefine the norms to slowly make priority sector more targeted, smaller, and need-driven. The dual responsibility of building a modern economy and lifting the standard of living at the lowest percentiles of income demand creativity, including more evidence-based policy making especially in relation to PSL.

- ◆ *Differentiate within PSBs*: The analysis in this chapter suggests that there is sufficient variation in the performance of public sector banks. The policy implication is that a one-size-fits-all approaches to governance reforms, public ownership, exit and recapitalisation should cede to a more selective approach.
- ◆ *Diversify within and outside the banking system*: More banks and more kinds of banks must be encouraged. Healthy competition from capital markets is essential too which will require policy support which was discussed extensively in last year's Economic Survey.
- ◆ *Disinter*: Better bankruptcy procedures for the future is essential. Debt Recovery Tribunals are over-burdened and under-resourced, leading to tardy turnaround times and delayed justice. The ownership structure of Asset Restructuring Companies in which banks themselves have significant stakes creates misaligned incentives. The SARFAESI act seems to work more against the smallest borrowers and medium sector enterprises. Distressed assets hang like a Damocles sword over the economy and require creative solution. One possibility is the appointment of an Independent Renegotiation Commission with political authority and reputational integrity to resolve some of the big and difficult cases. When the next boom and bust comes around, India needs to be better prepared to distribute pain between promoters, creditors, consumers, and taxpayers. Being prepared for the clean-up is as important as the being prudent in the run-up.