Economic Outlook, Prospects, and Policy Challenges

01
CHAPTER

1.1 Introduction

A political mandate for reform and a benign external environment have created a historic moment of opportunity to propel India onto a double-digit growth trajectory. Decisive shifts in policies controlled by the Centre combined with a persistent, encompassing, and creative incrementalism in other areas could cumulate to Big Bang reforms.

As the new government presents its first full-year budget, a momentous opportunity awaits. India has reached a sweet spot—rare in the history of nations—in which it could finally be launched on a double-digit medium-term growth trajectory. This trajectory would allow the country to attain the fundamental objectives of "wiping every tear from every eye" of the still poor and vulnerable, while affording the opportunities for increasingly young, middle-class, and aspirational India to realize its limitless potential.

This opening has arisen because facts and fortune have aligned in India's favour. The macro-economy has been rendered more stable, reforms have been launched, the deceleration in growth has ended and the economy appears now to be recovering, the external environment is benign, and challenges in other major economies have made India the near-cynosure of eager investors. Daunting challenges endure, which this Survey will not ignore, but the strong political mandate for economic change has imbued optimism that they can be overcome. India, in short, seems poised for propulsion.

Any Economic Survey has to grapple with prioritization, to navigate the competing pitfalls of being indiscriminatorily inclusive and contentiously selective. Accordingly, this Survey will focus on the two broad themes—creating opportunity and reducing vulnerability—because they are the two pressing themes of the day and which between them encompass the many key policy challenges that the new government must address.

The outline for this volume of the Economic Survey is as follows. A brief macroeconomic review and outlook will set the context for the broader thematic and policy discussions that follow. The importance of economic growth, both for lifting up those at the bottom of the income and wealth distribution, and providing opportunities for everyone in that distribution, cannot be overstated.[1] Rapid, sustainable, and all-encompassing growth requires a strong macroeconomic foundation, key to which is fiscal discipline and a credible medium term fiscal framework. These prerequisites are discussed in Sections 1.2 and 1.6.

But "wiping every tear from every eye" also requires proactive support from the government in the form of a well-functioning, well-targeted, leakage-proof safety net that will both provide (minimum income) and protect (against adverse shocks). This is also true in rural India where economic conditions for farmers and labourers are under stress. The policy issue now is no longer whether but how best to "provide and protect," and technology-based direct benefit transfers will play an important role in this regard (discussed in Section 1.7.

[1] Bhagwati, J. and Arvind Panagariya, "*Why Growth Matters: How Economic Growth in India Reduced Poverty and the Lessons for Other Developing Countries*", 2013, A Council on Foreign Relations Book, Public Affairs Books.

Perspiration and inspiration, investment and efficiency, respectively, determine long-run growth. But the Indian private investment climate is clouded by the experience of the last decade. A combination of factors—weak corporate balance sheets, an impaired banking system, difficulty of exit, the deficiencies of the public private partnership (PPP) model in infrastructure—could hold back private investment going forward. Private investment must remain the main engine of long-run growth. But, in the short to medium term, as the near-intractable problems get slowly resolved, public investment, especially by the railways, will have to play a catalytic role. These issues and how the banking system can play a supportive role are the focus of discussions in sections 1.8 and 1.9.[2]

Manufacturing and trade have been the engines of growth in the post-war period for most economies, especially in Asia. The validity of that experience for India, which acquires salience in the context of the 'Make in India' initiative, is the focus of section 1.10. The following section then takes up challenges related to trade.

Sections 1.12 and 1.13—on climate change and gender equality respectively— deal with issues which India cannot and must not ignore. These are central to the challenges of growth, development and equality of opportunity. The objective of protecting the vulnerable must specifically take account of the fact that while India is increasingly young, middle-class, and aspirational, it is still persistently stubbornly male.

All these policy issues and challenges are elaborated in Chapters 2-10 in this volume. The last section deals with what is a dramatic re-shaping of Centre-State fiscal relations. It provides a preliminary analysis of the key implications of the recommendations of the Fourteenth Finance Commission.

Given the expectations surrounding the upcoming budget, one question needs to be addressed head-on: *Does India need Big Bang reforms?* Much of the cross-country evidence of the post-war years suggests that Big Bang reforms occur during or in the aftermath of major crises. Moreover, Big Bang reforms in robust democracies with multiple actors and institutions with the power to do, undo, and block, are the exception rather than the rule. India today is not in crisis, and decision-making authority is vibrantly and frustratingly diffuse.

Not only are many of the levers of power vertically dispersed, reflected in the power of the states, policy-making has also become dispersed horizontally. The Supreme Court and the Comptroller and Auditor General have all exerted decisive influence over policy action and inaction.

Moreover, some important reforms such as improvements to tax administration or easing the cost of doing business, require persistence and patience in their implementation, evoked in Max Weber's memorable phrase, "slow boring of hard boards".

Hence, Big Bang reforms as conventionally understood are an unreasonable and infeasible standard for evaluating the government's reform actions.

Equally though, the mandate received by the government affords a unique window of political opportunity which should not be foregone. India needs to follow what might be called "*a persistent, encompassing, and creative incrementalism*" but with bold steps in a few areas that signal a decisive departure from the past and that are aimed at addressing key problems such as ramping up investment, rationalizing subsidies, creating a competitive, predictable, and clean tax policy environment, and accelerating disinvestment.

Thus, Weber's wisdom cannot be a licence for inaction or procrastination. Boldness in areas where policy levers can be more easily pulled by the center combined with that incrementalism in other areas is a combination that can cumulate over time to Big Bang reforms. That is the appropriate standard against which future reforms must be assessed.

[2] Financial sector issues were discussed extensively in last year's Survey.

1.2. Macroeconomic review and outlook

Macroeconomic fundamentals have dramatically improved for the better, reflected in both temporal and cross-country comparisons.

Start first with the changing macro-economic circumstances. The changing fortunes of India have been nothing short of dramatically positive (Figure 1.1). Inflation has declined by over 6 percentage points since late 2013, and the current account deficit has shrivelled from a peak of 6.7 percent of GDP (in Q3, 2012-13) to an estimated 1.0 percent in the coming fiscal year. Foreign portfolio flows (of US$ 38.4 billion since April 2014) have stabilized the rupee, exerting downward pressure on long-term interest rates, reflected in the yield on 10-year government securities, and contributed to the surge in equity prices (31 percent since April in rupee terms, and even more in US dollars, ranking it the highest amongst emerging markets). In a nearly 12-quarter phase of deceleration, economic growth averaged 6.7 percent but since 2013-14 has been growing at 7.2 percent on average, the later based on the new growth estimates (see Box 1.1 on how to interpret them).

As a result of these improvements, India's macroeconomic position now compares favourably with other countries. Figure 1.2 depicts an overall macro-vulnerability index (MVI) that combines a country's fiscal deficit, current account deficit, and inflation. The index is thus comparable across countries and across time. In 2012, India was the most vulnerable country as measured by its index value of 22.4, comprising an inflation rate of 10.2 percent, a budget deficit of 7.5 percent and a current account deficit of 4.7 percent of GDP, well above that in the other countries. Turkey in 2014 surpassed India because of high current account deficit (of nearly 8 percent). Today, India's fortunes have improved dramatically and India demonstrated the greatest improvement in the MVI while many others maintained the status quo or showed only a marginal improvement or deteriorated dramatically (Russia). India is still more vulnerable than the mean of countries in its investor rating category (BBB) but is less so than many of its larger emerging market peers.

If macro-economic stability is one key element in assessing a country's situation/potential, its growth- actual and prospective- is another. A simple way therefore to compare the relative economic situation is to supplement the macro-economic vulnerability index with a "Rational Investor Ratings Index (RIRI)."[3] In assessing the risks and rewards of competing destinations, rational investors take into account not just macroeconomic stability (which proxies for risks) but also growth which crucially determines rewards and returns.

In figure 1.3 this index is depicted for India and a number of comparator countries, including the BRICS, other major emerging markets (Turkey) as well as countries in India's investor rating category (BBB) and category (A) that is above India's. Regardless of whether Indian growth is measured according to the old methodology or the new methodology (see Box 1.1), India exhibits a dramatic improvement in the index.

India ranks amongst the most attractive investment destinations, well above other countries. It ranks well above the mean for its investment grade category, and also above the mean for the investment category above it (on the basis of the new growth estimates). Amongst BRICS (and other comparable countries) only China scores above India. The reality and prospect of high and rising growth, combined with macroeconomic stability, is the promise of India going forward.

[3]The RIRI is computed by averaging a country's GDP growth rate and its macro-economic indicators; the latter measured as the average of the fiscal deficit, current account deficit, and inflation (all with negative signs). Thus, equal weight is given to growth and macroeconomic stability. The greater the number, the better should be its investor rating. Since, updated WEO forecasts are not publicly available for all countries, data are from Citi Group and have been updated in January assuming an oil price in the range of US$ 58-60 per barrel for 2015. Data from other sources yield very similar estimates for the RIRI.

Figure 1.1A: WPI and CPI Inflation, April 2013 to January 2015 (Per cent)

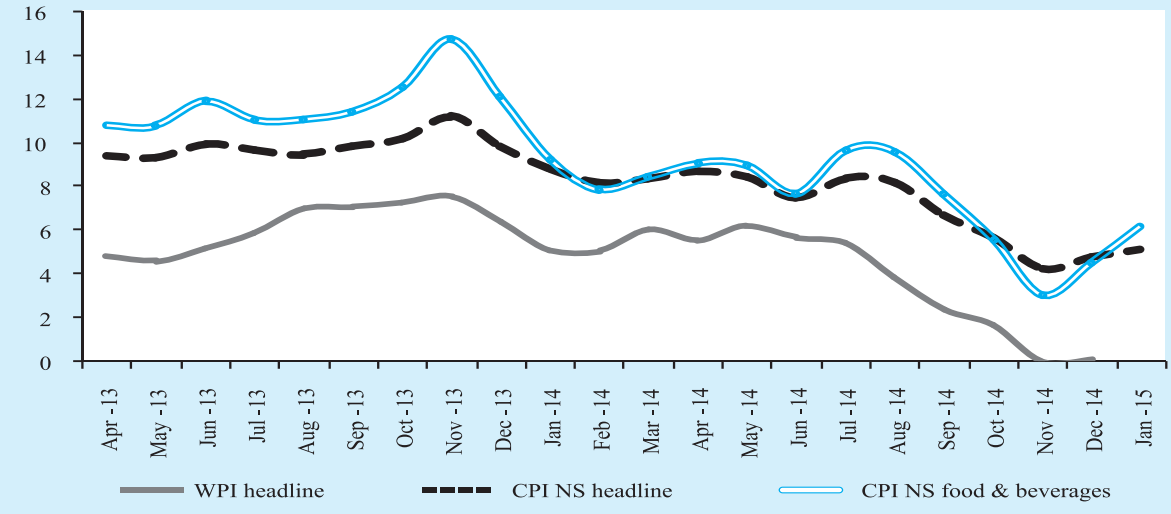


Figure 1.1B: Current Account Balance and Net Foreign Investment, 2004-05 Q1 to 2014-15Q2 (per cent of GDP)

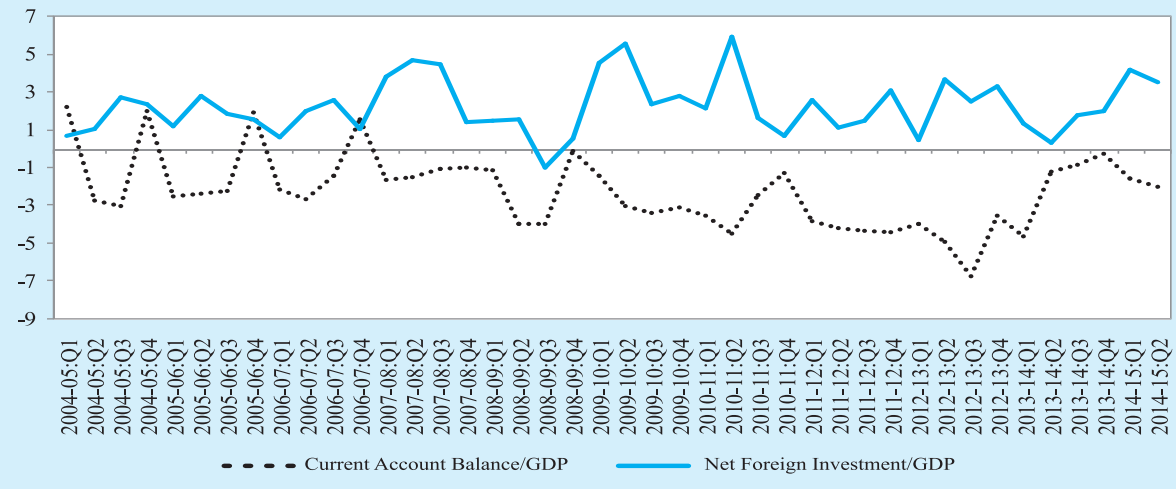


Figure 1.1C: Daily Stock Prices (Nifty), January 2013 to February 2015

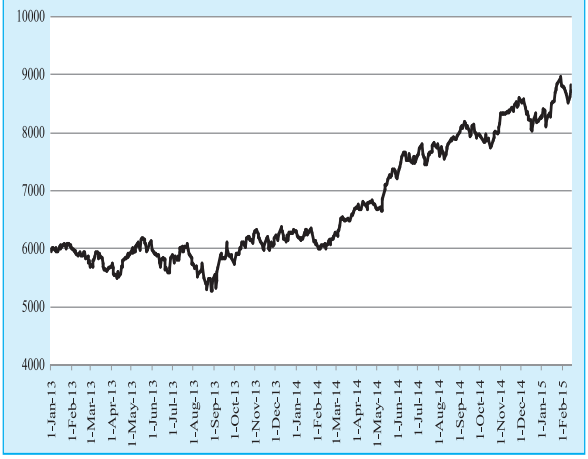
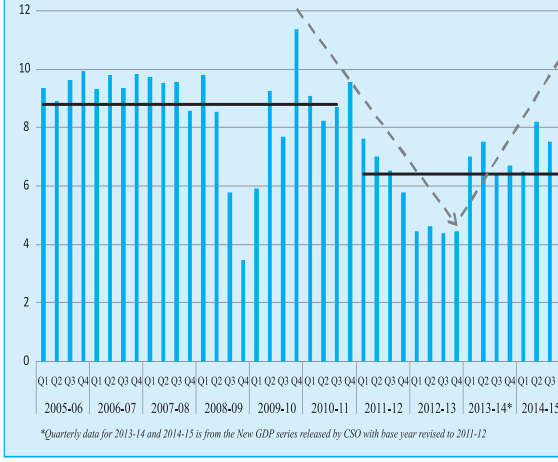


Figure 1.1D: Quarterly GDP Growth, 2005-06Q1 to 2014-15Q4 (Per cent)



Sources: **Office of Economic Adviser, Department of Industrial Policy and Promotion, Central Statistics Office, Reserve Bank of India and National Stock Exchange**

Figure 1.2: Maco-Vulnerability Index for Selected Emerging Market Countries, 2010 to 2015

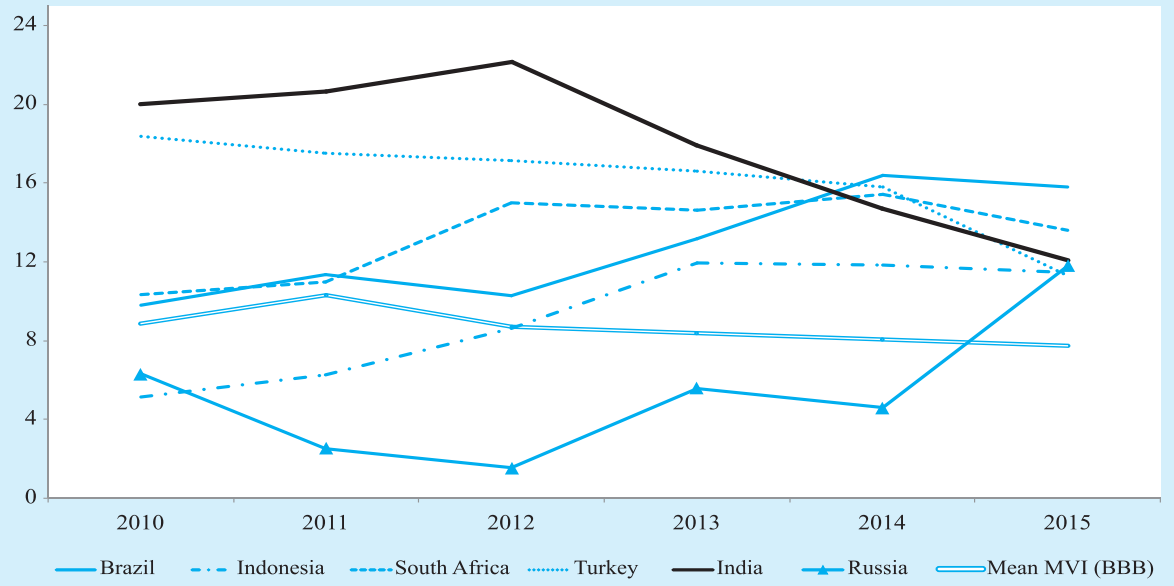
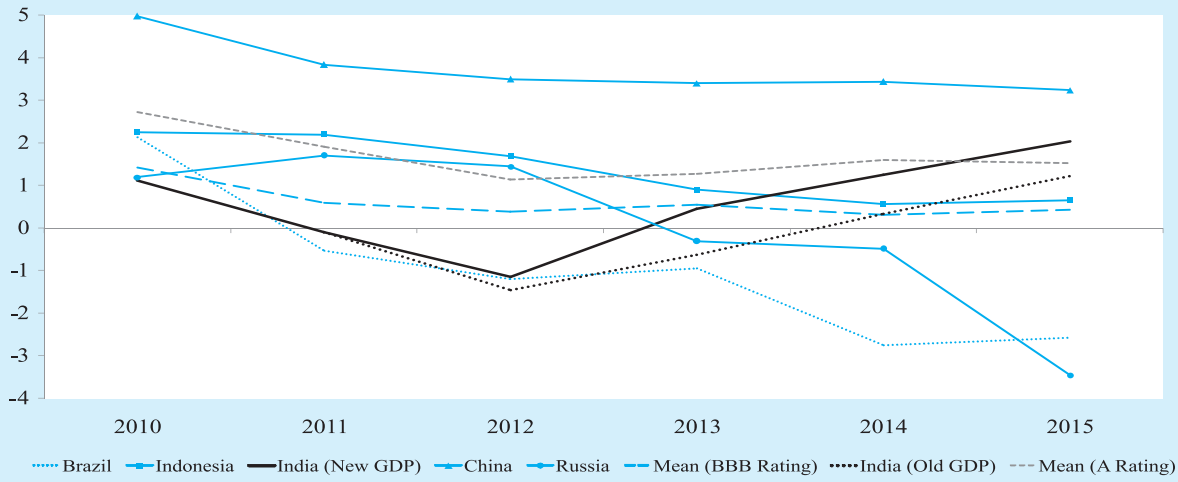


Figure 1.3: Rational Investor Ratings Index for Selected Emerging Market Countries, 2010 to 2015



Source: **MoF calculations.**

1.2A. Macro-economic management and policy reforms

Reforms have been initiated in a number of areas and major ones are on the horizon. The macroeconomic response to the favourable terms of trade shock has led to an appropriately prudent mix of increased government savings and private consumption.

The policy reforms of the new government—actual and prospective—have attracted worldwide attention. The cumulative impact of these reforms on reviving investment and growth could be significant. Equally important though has been macro-economic management which needs to be assessed in simple analytical terms.

Since June 2014, India has experienced a very favourable terms-of-trade shock as a result of a 50-55 percent decline in the price of crude-oil and other commodities. The accepted injunction from the standard macroeconomic manual is that responses to terms-of-trade shocks should be

Box 1.1 : Revised Estimates of GDP and GDP growth

Notwithstanding the new estimates, the balance of evidence and caution counsel in favour of viewing India as a recovering rather than surging economy.

On January 30, the Central Statistics Office released a new GDP series that entailed shifting the base year from 2004-05 to 2011-12 but also using more data and deploying improved methodologies (Chapter 1 in the second volume of the Survey provides greater details). New estimates for GDP have been provided for the years 2011-12 to 2014-15.

How should one view these estimates? First, the improvement in data and methods puts India on par with international standards of GDP estimation. India is perhaps unique in that GDP revisions result in lower numbers rather than the typically high upward revision seen in many countries. The key estimate for the level of GDP for 2011-12, which is the new base year, is actually 2 percent lower than previously estimated.

However, the growth estimates warrant further reflection. On the one hand, directionally the growth estimate for 2014-15 relative to that for 2013-14 seems plausible and consistent with the fact of improving investor sentiment and reform actions.

On the other, both directionally and in level terms, the growth estimate for 2013-14 is puzzling. According to the new estimates, growth at market prices in 2013-14 apparently accelerated by 1.8 percentage points to 6.9 percent (1.5 percentage points for growth at basic prices).

These numbers seem difficult to reconcile with other developments in the economy. 2013-14 was a crisis year—capital flowed out, interest rates were tightened, there was consolidation—and it is difficult to see how an economy's growth rate could accelerate so much in such circumstances. Also, imports of goods in 2013-14 apparently declined by 10 percent, which, even accounting for the squeeze on gold imports, is high. Growth booms are typically accompanied by import surges not import declines. This boom was one over-reliant on domestic demand because the contribution of net external demand was substantially negative.

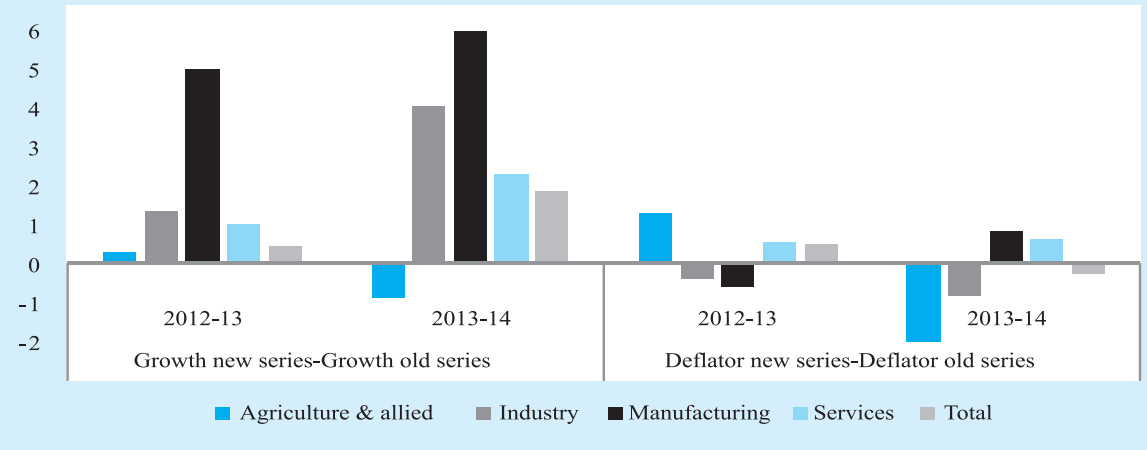
This growth surge also appears to have been accompanied by dramatic declines in savings and investment ratios. For example, gross fixed capital formation declined from 33.6 percent in 2011-12 to 29.7 percent in 2013-14 while gross domestic savings declined from 33.9 percent to 30.6 percent. The implication is that the growth surge in the crisis year of 2013-14 was also a massive productivity surge, reflected in an incremental capital ratio that declined by about 30 percent, and total factor productivity growth that improved by over 2 percentage points. The data show that private corporate investment increased robustly in 2013-14 which seems at odds with stressed balance sheets and the phenomenon of stalled projects.

Some clues to understanding the new series are provided in the chart below which decomposes the differences between the new series into those relating to real GDP growth and those to the deflator. This decomposition is shown sectorally.

The largest discrepancies between the two series arise in 2013-14 and relate to real GDP growth for the manufacturing sector, where the magnitude is 6 percentage points! Even in 2012-13 the divergence between the two series in manufacturing is 5 percentage points. Jumps in the level of the manufacturing share of GDP can be attributed to the new methodology but it is still unclear why the rate of growth should diverge so much from previous estimates and from other indicators of manufacturing growth (viz. the index of industrial production). Even allowing for the fact that the latter is a volume index and the former a valued-added index, the discrepancy remains large. Clearly, these issues need to be examined in greater detail.

Until a longer data series is available for analysis and comparisons, and until the changes can be plausibly ascribed to the respective roles of the new base, new data, and improved methodology, the growth narrative of the last few years may elude a fuller understanding. Regardless, the latest numbers will have to be the prism for viewing the Indian economy going forward because they will be the only ones on offer. But, the balance of evidence and caution counsel in favour of an interpretation of a recovering rather than surging Indian economy.

Figure: Difference between New and Old Estimates of Economic Growth, 2012-13 and 2013-14 (Per cent)



Source: **Central Statistics Office.**

determined by their nature: a positive shock that is perceived to be permanent should lead to larger consumption increases because the country's permanent income has increased; on the other hand, temporary positive shocks should lead to greater savings. What has India done?

Given the uncertainty about the nature of the shock, India has appropriately hedged. Figure 1.4 below compares the decline in international crude-oil prices with the corresponding decline in domestic retail prices of petrol and diesel. Since end-June 2014, the international price declined by about 50 percent. Of this, about 17 percent (representing about 34 percent of the overall decline) was passed on to consumers while the government retained the rest. In other words, 66 percent of the terms of trade shock went into the government's savings with the rest being passed on to consumers. (As detailed in section 1.12, the government's actions in this regard are also helping in form of a de-facto carbon tax.) Accounting for uncertainty about the future movement of prices, the macro-economic response has appropriately balanced savings and consumption, and by favouring the former, provided a necessary cushion to absorb the effects of higher oil prices in the future.

1.2B Outlook for Growth

In the short run, growth will receive a boost from lower oil prices, from likely monetary policy easing facilitated by lower inflation and lower inflationary expectations, and forecasts of a normal monsoon. Medium-term prospects will be conditioned by the "balance sheet syndrome with Indian characteristics," which has the potential to hold back rapid increases in private sector investment.

In the coming year, real GDP growth at market prices is estimated to be about 0.6-1.1 percentage points higher vis-a-vis 2014-15. This increase is warranted by four factors. First, the government has undertaken a number of reforms and is planning several more (Box 1.2). Their cumulative growth impact will be positive.

A further impetus to growth will be provided by declining oil prices and increasing monetary easing facilitated by ongoing moderation in inflation. Simulating the effects of tax cuts, declining oil prices will add spending power to households, thereby boosting consumption and growth. Oil is also a significant input in production, and declining prices will shore up profit margins and hence balance sheets of the corporate sector. Declining input costs are reflected in the wholesale price index which moved to deflation territory in January 2015.

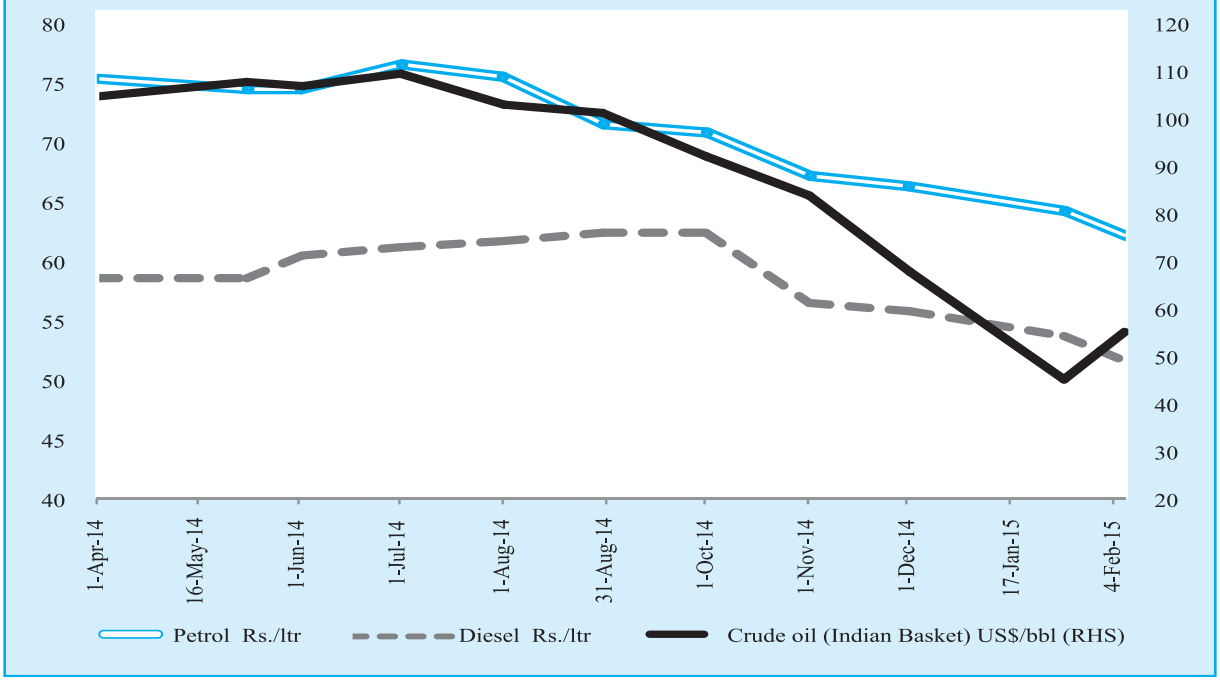
Further declines in inflation and the resulting monetary easing will provide policy support for growth both by encouraging household spending in interest-sensitive sectors and reducing the debt burden of firms, strengthening their balance sheets. The final favourable impulse will be the monsoon which is forecast to be normal compared to last year[4]. Using the new estimate for 2014-15 as the base, this implies growth at market prices of 8.1-8.5 percent in 2015-16.

The power of growth to lift all boats will depend critically on its employment creation potential. The data on longer-term employment trends are difficult to interpret because of the bewildering multiplicity of data sources, methodology and coverage (see Box 1.3). One tentative conclusion is that there has probably been a decline in long run employment growth in the 2000s relative to the 1990s and probably also a decline in the employment elasticity of growth: that is, a given amount of growth leads to fewer jobs created than in the past. Given the fact that labour force growth (roughly 2.2-2.3 percent) exceeds employment growth (roughly about 1½ percent), the challenge of creating opportunities will remain significant.

1.2C Outlook for reforms

In the months ahead, several reforms will help boost investment and growth. The budget should continue the process of fiscal consolidation, embedding actions in a medium-term framework. India's overall revenue-to-GDP ratio (for the general government) for 2014 is estimated at 19.5 percent by the IMF. This needs to move toward levels in comparator countries—estimated at 25 percent for emerging Asian economies and 29 percent for the emerging market countries in the G-20. At the same time, expenditure control should

Figure 1.4: Fall in International &Domestic Prices, April 2014 to February 2015 (Rs./ltr & US$/barrel)



Source: **PPAC, Ministry of Petroleum & Natural Gas and PIB, Govt. of India.**

Note: Prices for petrol and diesel are all India average.

[4].http://www.skymetweather.com/content/weather-news-and-analysis/el-nino-scare-abandoned-normal-indian-monsoon-likely-in-2015/

Box 1.2 : Reform Actions of the New Government

Since assuming office in May 2014, the new government has undertaken a number of new reform measures whose cumulative impact could be substantial.

These include:

- Deregulating diesel prices, paving the way for new investments in this sector;
- Raising gas prices from US$ 4.2 per million British thermal unit to US$ 5.6, and linking pricing, transparently and automatically, to international prices so as to provide incentives for greater gas supply and thereby relieving the power sector bottlenecks;
- Taxing energy products. Since October, taking advantage of declining oil prices, the excise tax on diesel and coal was increased four times. In addition to resulting in collections of about ₹ 70,000 crore (on an annualized basis), this action will have positive environmental consequences, as explained in section 1.12;
- Replacing the cooking gas subsidy by direct transfers on a national scale;
- Instituting the Expenditure Management Commission, which has submitted its interim report for rationalizing expenditures;
- Passing an ordinance to reform the coal sector via auctions;
- Securing the political agreement on the goods and services tax (GST) that will allow legislative passage of the constitutional amendment bill;
- Instituting a major program for financial inclusion—the Pradhan Mantri Jan Dhan Yojana under which over 12.5 crore new accounts have been opened till mid-February 2014;
- Continuing the push to extending coverage under the Aadhaar program, targeting enrollment for 1 billion Indians; as of early February, 757 million Indians had been bio-identified and 139-Aadhaar linked bank accounts created;
- Increasing FDI caps in defense;
- Eliminating the quantitative restrictions on gold;
- Passing an ordinance to make land acquisition less onerous, thereby easing the cost of doing business, while ensuring that farmers get fair compensation;
- Facilitating Presidential Assent for labour reforms in Rajasthan, setting an example for further reform initiatives by the states; and consolidating and making transparent a number of labour laws; and
- Passing an ordinance increasing the FDI cap in insurance to 49 percent. Commencing a program of disinvestments under which 10 percent of the government's stake in Coal India was offered to the public, yielding about ₹ 22,500 crore, of which ₹ 5,800 crore was from foreign investors;
- Passing the Mines and Minerals (Development and Regulation) (MMDR) Amendment Ordinance, 2015 is a significant step in revival of the hitherto stagnant mining sector in the country. The process of auction for allotment would usher in greater transparency and boost revenues for the States.

be consolidated while ensuring that there is switching from public consumption to public investment, with a focus on eliminating leakages and improving targeting in the provision of subsidies.

To provide legal certainty and confidence to investors, the ordinances on coal, insurance, and land need to be translated into legislation approved by Parliament. At the same time, the constitutional amendment bill to implement the goods and services tax (GST) also needs to be enshrined in legislation first by Parliament followed by ratification by the States. A single GST rate (across States and products) set at internationally competitive levels with limited exemptions would maximize its pro-growth, pro-compliance, and pro-single market creating potential.

While the framework for a modern and comprehensive indirect tax system is being put in place with the GST, parallel efforts are required

Box 1.3: Employment Growth and Employment Elasticity: What is the Evidence?

Estimates of employment growth and its elasticity relative to economic growth vary widely. However, tentatively, one might say that employment growth and elasticity have declined in the 2000s compared to the 1990s. Since labour force growth is in excess of employment growth, labour absorption will be a challenge. Reforms and faster economic growth will be central to meeting it.

If the new GDP estimates have raised questions about our understanding of recent economic developments, deciphering patterns of employment growth is no less a challenge. There is almost a bewildering variety of estimates on employment growth in India. Data come from multiple sources, for different time periods, coverage and sample sizes, with varying methodologies. These are described in the table below.

Table : Periodicity, Coverage and Population size of different Data Sources

Sl.	Data Source	Periodicity	Sector Coverage	Population/Sample
1	Census	Decadal	All	Population
2	Labour Bureau (LB)	Annual	All	Sample (1.37 lakh households, 6.80 lakh persons in 2013-14 survey)
3	National Sample Survey (NSS)	Quinquennial	All	Sample (1.02 lakh households, 4.57 lakh persons in 2011-12 round)
4	Economic Census (EC)	No fixed periodicity	All establishments including the unorganized sector and excluding crop production, plantation, public administration, defence and compulsory social security.	Sample (25 lakh households, 56 million establishments in 2014 EC)
5	Annual Survey of Industries (ASI)	Annual	All factories registered under Sections 2m(i) and 2m(ii) of the Factories Act, 1948 + all electricity undertakings engaged in generation, transmission and distribution of electricity registered with the Central Electricity Authority (CEA)	2.17 lakh factories in 2012-13 survey

Notes:
1. Census classifies employed as main and marginal.
2. NSS accounts for both principal and subsidiary status of employment.
3. From the Labour Bureau survey, we estimate population for the age group 15 and above.
4. For ASI data from 2000-01 to 2003-04, the census field was modified to include units employing 100 and more workers instead of 200 and more workers. Therefore post 2000-01 data are not strictly comparable with that of previous rounds.

What do these sources tell us about employment growth and the elasticity of employment growth with respect to GDP growth for the 1990s and 2000s?[1] The results are summarized in the table below.

Table : Employment Growth And Employment Elasticities

	CENSUS		NSS		LABOUR BUREAU	ECONOMIC CENSUS		ASI	
	1991 to 2001	2001 to 2011	1993-94 to 1999-2000	1999-00 to 2011-12	2011-12 to 2013-14	1990 to 1998	1998 to 2014	1990-91 to 1998-99	2003-04 to 2012-13
Change in Employment (million)	88.4	79.2	25.5	73.4	9.15	12.9	44.4	0.43	5.07
Employment Growth	2.5	1.8	1.1	1.4	1.0	2.1	2.7	0.6	5.7
GDP Growth	5.7	7.7	6.8	7.3	4.6	6.1	6.6	5.5	10.7
Employment Elasticity	0.44	0.24	0.16	0.19	0.22	0.35	0.41	0.12	0.54

A few very tentative conclusions can be drawn from what are fairly noisy estimates. Aggregate employment growth has been above 2 percent in the 1990s. The Census and Economic Census are fairly close to each other in this regard, although the NSS data paints a different picture. Employment growth declines to between 1.4 and 1.8 percent in the 2000s according to both the Census and NSS. In contrast, employment growth in organized industry exhibits the opposite temporal pattern, with substantially higher employment growth in the 2000s compared with the 1990s.

A similar pattern is suggested for the employment elasticity of growth: higher elasticity of about 0.35-0.44 in the 1990s and a drop to close to 0.2 in the 2000s. The most recent data from the Labour Bureau indicates that since 2011-12 too, the employment elasticity has remained low. Employment absorption was evidently less successful in the last decade.

Regardless of which data source is used, it seems clear that employment growth is lagging behind growth in the labour force. For example, according to the Census, between 2001 and 2011, labor force growth was 2.23 percent (male and female combined). This is lower than most estimates of employment growth in this decade of closer to 1.4 percent. Creating more rapid employment opportunities is clearly a major policy challenge.

[1]In computing the employment elasticity, consistency of coverage between the employment and growth data is ensured to the extent possible. For example, for EC data, manufacturing GDP is used as the relevant base; while for ASI data gross value addition (deflated by Manufacturing GDP) is used as the base in the computations.

References: Misra, Sangita and Anoop K Suresh *"Estimating Employment Elasticity of Growth for the Indian Economy"*, 2014, RBI Working Paper Series 6.

Mehrotra, Santosh "Explaining Employment Trends in the Indian Economy: 1993-94 to 2011-12", 2014, Economic and Political Weekly, XLIX(32).

on the direct tax side. The objective should be to create a competitive, predictable, clean, and exemptions-light tax policy regime that will lower the cost of capital, incentivize savings, and facilitate taxpayer compliance.

The government and the RBI need to conclude the monetary policy framework agreement to consolidate the recent gains in inflation control and codify into an institutional arrangement what has become the de facto practice. This would signal that both government and RBI jointly share the objectives of low and stable inflation.

Reforms of labor and land laws and reducing the costs of doing business will need to be a joint endeavor of the States and Center (see Box 3 of the *Mid-Year Economic Analysis* 2014-15 for an elaboration). The game-changing potential of implementing the GST and moving to technology-enabled Direct Benefit Transfers— which we call the JAM (Jan Dhan-Aadhaar-Mobile) Number Trinity solution-should not be underestimated.

1.3 Inflation and Money

Structural shifts in the inflationary process are underway caused by lower oil prices and deceleration in agriculture prices and wages. These are simultaneously being reflected in dramatically improved household inflation expectations. The economy is likely to over-perform on the RBI's inflation target by about 0.5-1.0 percentage point, opening up the space for further monetary policy easing.

As elaborated in the *Mid-Year Economic Analysis* 2014-15, the evolution in inflation has surprised market participants and policy makers, including the RBI. The momentum, measured as the three month average seasonally adjusted and annualized, has declined from nearly 15 percent to below 5 percent (Figure 1.5).[5] Interestingly, the momentum of food prices has declined even more and is at levels below overall inflation.

Going forward, this momentum is likely to persist because of three striking developments in three areas that signal a structural shift in the inflationary process in India: *crude-oil, agriculture,* and *inflation expectations.*

Crude-oil prices are expected to remain benign in the coming months. Indeed, the average of estimates by the IMF for (crude spot) and by the US Energy Information Administration (EIA) for Brent and West Texas Intermediate crude indicates that oil prices will be about 29 percent lower in 2015-16 compared with 2014-15 (US$ 59 versus US$ 82) (Figure 1.6).

The risk that the decline in oil prices will reverse itself always exists because of unpredictable geo-political developments. However, the persistence of moderated oil prices seems highly probable for at least three reasons: weaker global demand, increased supplies, and the global monetary and liquidity environment.

Demand will remain soft because of slow growth in major areas of the world economy, including China and Europe. Supply shifts are occurring related to the increase in crude-oil and shale gas production in the US and the concomitant decline in the oligopolistic power of OPEC, notably its swing producer, Saudi Arabia (which decided not to react to the increase in supply from other sources). Going forward, prices could increasingly be determined by the marginal cost of shale production estimated at around US$ 60-65 per barrel.[6]

Finally, the anticipated end to the abnormally low interest cycle in the US and the prospect of future rate increases will favour extraction of oil over keeping it in the ground, thereby further boosting supply and keeping prices soft. Higher rates will also lead to financial asset-reallocation away from commodities, especially oil, as a class into US financial instruments.

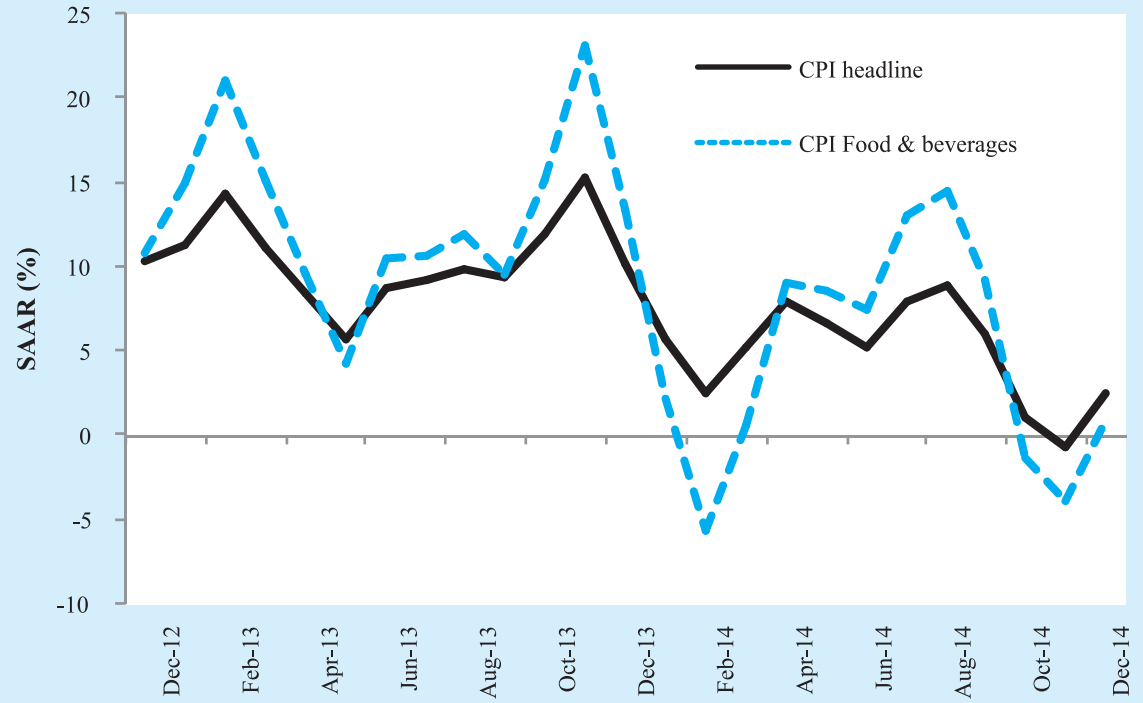
One lesson of the 2000s is instructive. This decade witnessed an across-the-board increase in commodity prices partly on account of excess liquidity, created by synchronized monetary policy easing in the advanced countries. That synchronization has been broken by the diverging macro-economic paths of the United States, where recovery will lead to a reversion to normal monetary policy, on the one hand, and Europe and Japan, on the other, where policies may remain loose. Of course, if China starts slowing and responds through a combination of cheaper credit and a depreciating exchange rate, global liquidity could surge again but the US will still be in tightening mode.

Second, in addition to oil prices, India's inflation will be shaped by pressures from agriculture, foreign and domestic. According to World Bank projections, global agricultural prices will remain muted- a likely decline of 4.8 percent in 2015

[5] Figure 1.5 is based on the new, re-based (from 2010 to 2012) CPI index.

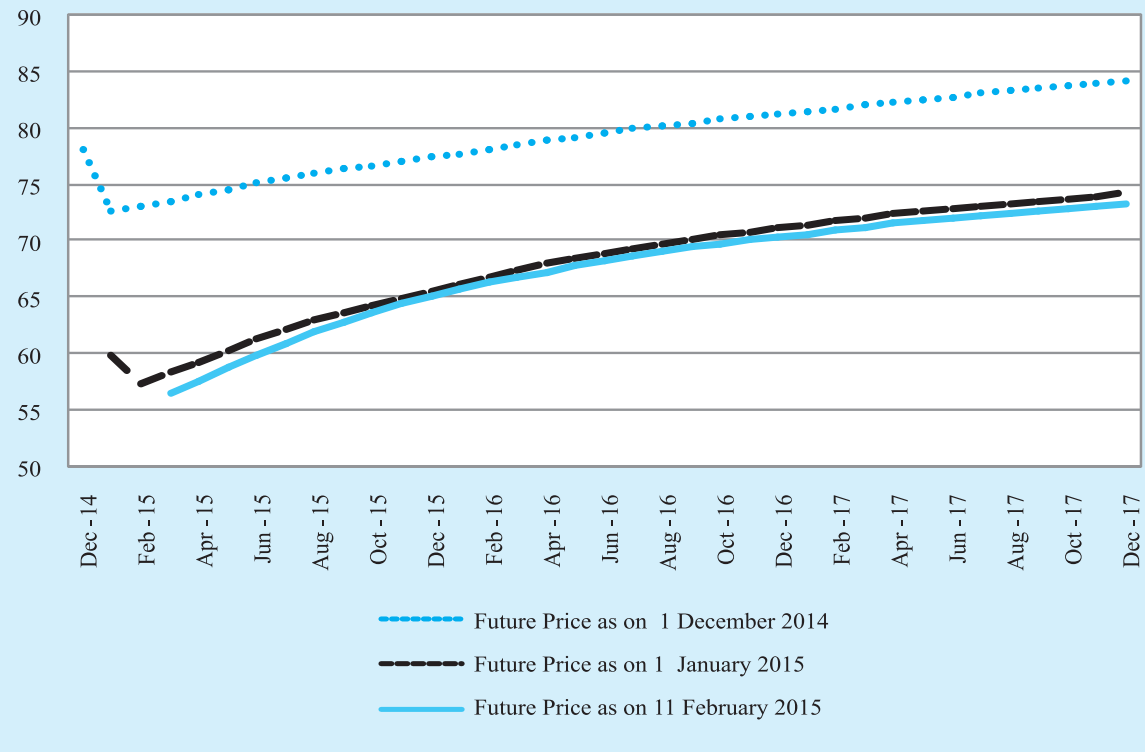
[6] Arezki, R & Olivier Blanchard, "*The 2014 oil price slump: Seven key questions*", January 2015 accessed at http://www.voxeu.org/article/2014-oil-price-slump-seven-key-questions.

Figure 1.5: Momentum of CPI (base 2012), December 2012 to December 2014 (Per cent)



Source: **CSO.**

Figure 1.6: Future Price of Brent Crude up to December 2017 (US$ per barrel)



Source: **Thomson Reuters.**

relative to 2014. This will likely have a key impact in moderating increases in domestic support prices.[7]

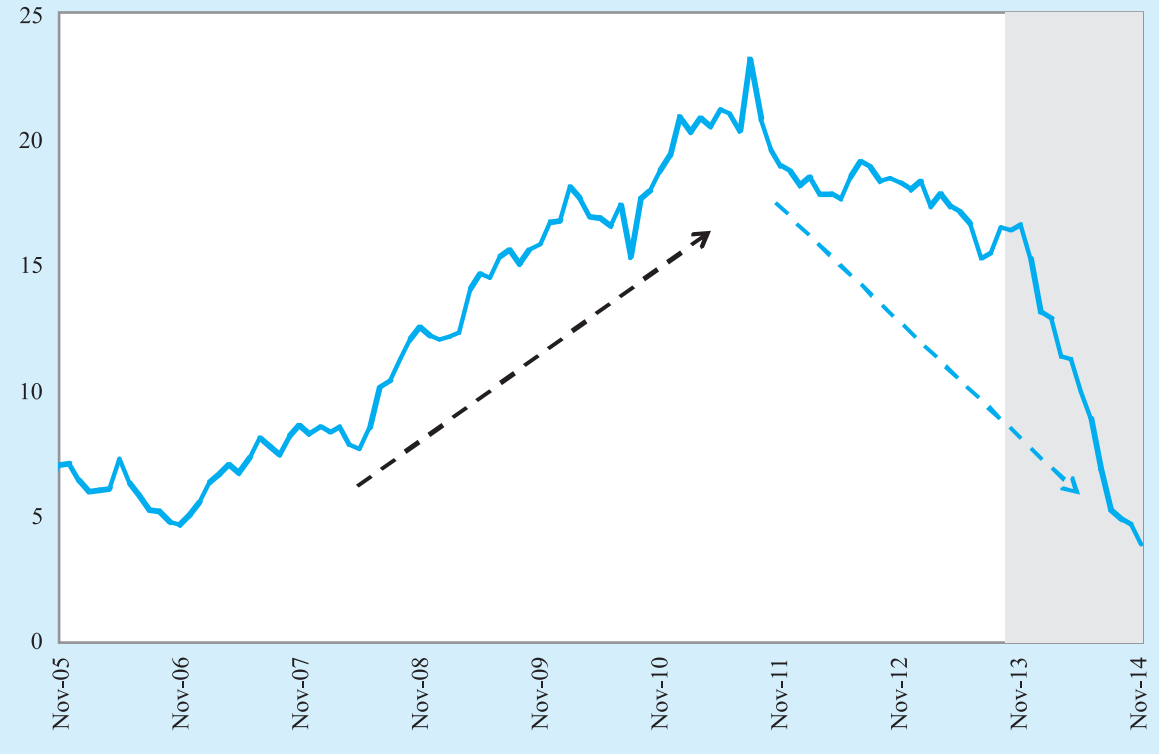
The most dramatic structural change relates to wage pressures. As shown in Figure 1.7, wage growth has declined to about 3.6 percent from over 20 percent. If these trends continue, rural wage growth can continue to decelerate, further moderating inflationary pressures.

The third factor relates to inflation expectations. Until recently, household surveys of inflation expectation conducted by the RBI showed that expectations have been stubbornly persistent and at levels well above actual inflation. But in the most recent survey they dropped by nearly 7-8 percentage points over all horizons (Figure 1.8). If this change conveys some information, inflation expectations will increasingly be anchored at more reasonable levels, moderating wage setting.

In sum, the structural shift that was argued in the *Mid-Year Economic Analysis* 2014-15 seems well under way. Consumer price inflation which is likely to print at 6.5 percent for 2014-15 is likely to decline further. Our estimate for 2015-16 is for CPI inflation to be in 5.0-5.5 percent range and for the GDP deflator to be in the 2.8-3.0 percent range. *The implication is that the economy will over-perform on inflation which would clear the path for further monetary policy easing.*

Trends in financial markets suggest that there has been a gradual easing of deposit rates in recent few months as yields on 10 year government bonds have been falling consistently during this period (Figure 1.9). Declining yields could trigger

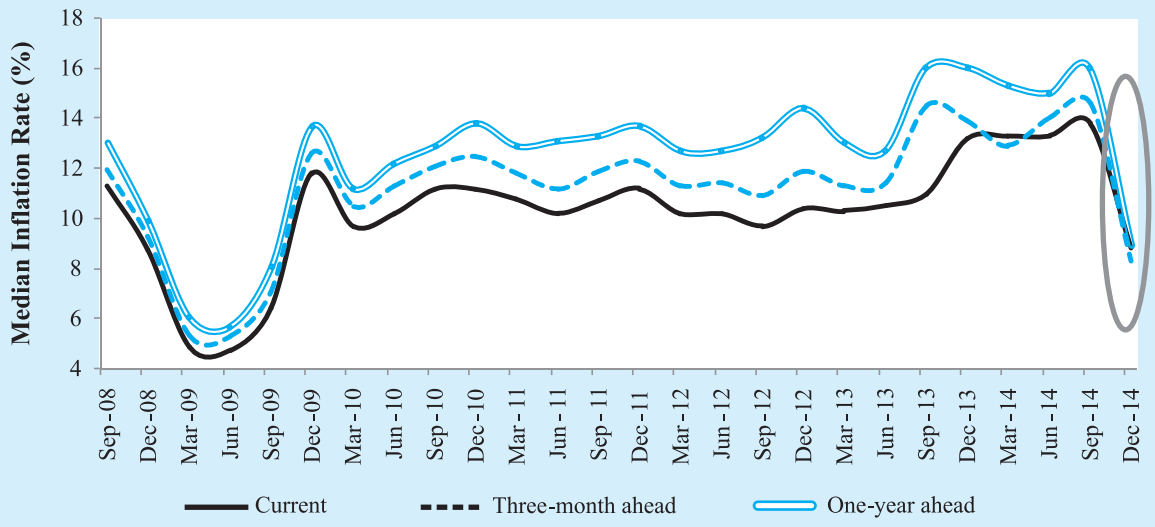
Figure 1.7: Rural Wage Growth, November 2005 to November 2014 (Per cent)



Source: **Labour Bureau.**

[7] The domestic production of oilseeds and pulses is likely to be below target, but greater imports could help dampen inflationary impulses from this sector.

Figure 1.8: Household Inflation Expectations, September 2008 to December 2014 (Per cent)



Source: **RBI.**

reduction in lending rates by banks in the coming months. With the easing of inflationary conditions, the RBI has already signalled a shift in the monetary policy stance when it cut policy repo rates by 25 basis points to 7.75 percent in January 2015. In some ways, further monetary policy easing would entail the policy rate catching up with market rates.

Liquidity conditions have remained broadly balanced so far during 2014-15. The implementation of a revised liquidity management framework has helped in reducing volatility in the overnight inter-bank segment and better anchoring the call rate near the policy rate. With the fiscal deficit to remain under control and the new liquidity management framework in place, liquidity conditions are expected to remain comfortable in 2015-16.

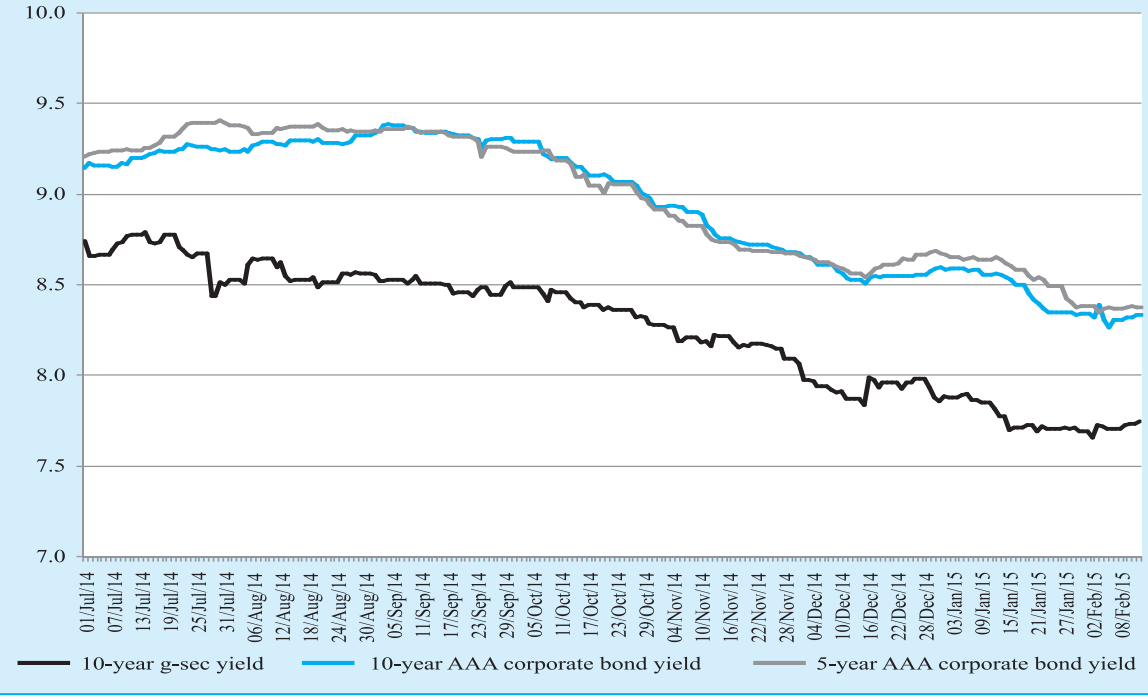
1.4 External Sector

The outlook is favourable for the current account and its financing. A likely surfeit, rather than scarcity, of foreign capital will complicate exchange rate management. Risks from a shift in US monetary policy and turmoil in the Eurozone need to be watched but could remain within control.

The outlook for the external sector is perhaps the most favourable since the 2008 global financial crisis, and especially compared to 2012-13, when elevated oil and gold imports fuelled a surge in the current account deficit. Global crude petroleum prices averaged about US$ 47/ bbl in January 2015 and about US$ 90/bbl for the year as a whole (April 2014-January 2015). Assuming a further moderation in average annual price of crude petroleum and other products, the current account deficit is estimated at about 1.3 per cent of GDP for 2014-15 and less than 1.0 per cent of GDP in 2015-16.

A rule of thumb is that a US$10 reduction in the price of oil helps improve the net trade and hence current account balance by US$ 9.4 billion. Moderated gold imports will also help sustain a manageable current account deficit. Since the elimination of restrictions on gold in November, gold imports have fallen well below the elevated levels seen in 2013. Declining international prices as well as moderating inflation have meant that gold imports averaged US$ 1.3 billion in December 2014 and US$ 1.6 billion in January 2015 compared with US$ 4.2 billion in October 2014 and US$ 5.6 billion in November 2014.

Figure 1.9: Bond Yields, July 2014 to February 2015 (Per cent)



Source: **Bloomberg.**

The outlook for external financing is correspondingly favourable, and surfeit rather than scarcity may pose the greater challenge. Financial flows in 2014-15 are likely to be in excess of US$ 55 billion, leading to a sizeable accretion to reserves by about US$ 26 billion, to about US$ 340 billion (Figure 1.10). This has been facilitated by extensive RBI exchange market intervention. These inflows are likely to continue through a large part of 2015-16. A key implication is that if the current account deficit is lower, a given level of capital inflows will create greater upward pressure on the rupee.

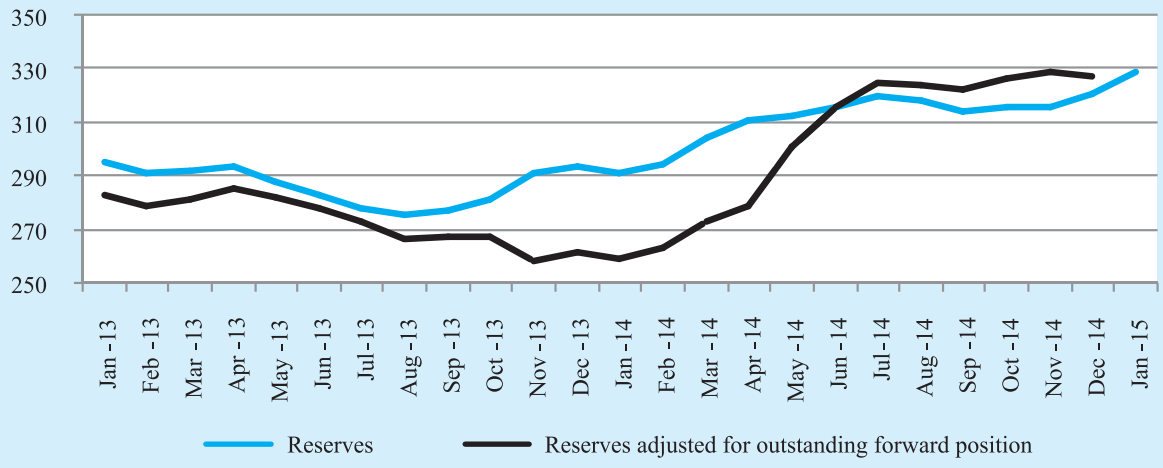
One source of concern is muted export growth and rising non-oil, non-gold imports which could be affected by India's deteriorating competitiveness, reflected in the appreciation of the real effective exchange rate by 8.5 per cent since January 2014. The interesting fact here is that higher inflation in India relative to trading partners is contributing only 2.3 percentage points, with the remaining 6.2 percentage points accounted for by the rupee strengthening in nominal terms against other currencies. In other words, surging capital inflows, notwithstanding the intervention by the RBI both in spot and forward markets, accounts for the bulk of the deteriorating competitiveness.

Reconciling the benefits of these flows with their impact on exports and the current account remains an important challenge going forward. The RBI, in other words, will be on the trident of the macro-economic trilemma, struggling to reconcile capital account openness and surging inflows, monetary policy independence, and the economy's competitiveness.

Four factors pose risks to the external situation:

- *renewed financial market volatility in response to US Federal Reserve monetary tightening which is expected later this year;*
- *possible turmoil if the viability of the Eurozone were to come into question in the event of a Greek exit;*
- *a spike in oil prices related to geopolitical events; and*
- *a slowly deteriorating international trade environment.*

Figure 1.10: Foreign Exchange Reserves, February 2013 to January 2015 (US$ billion)



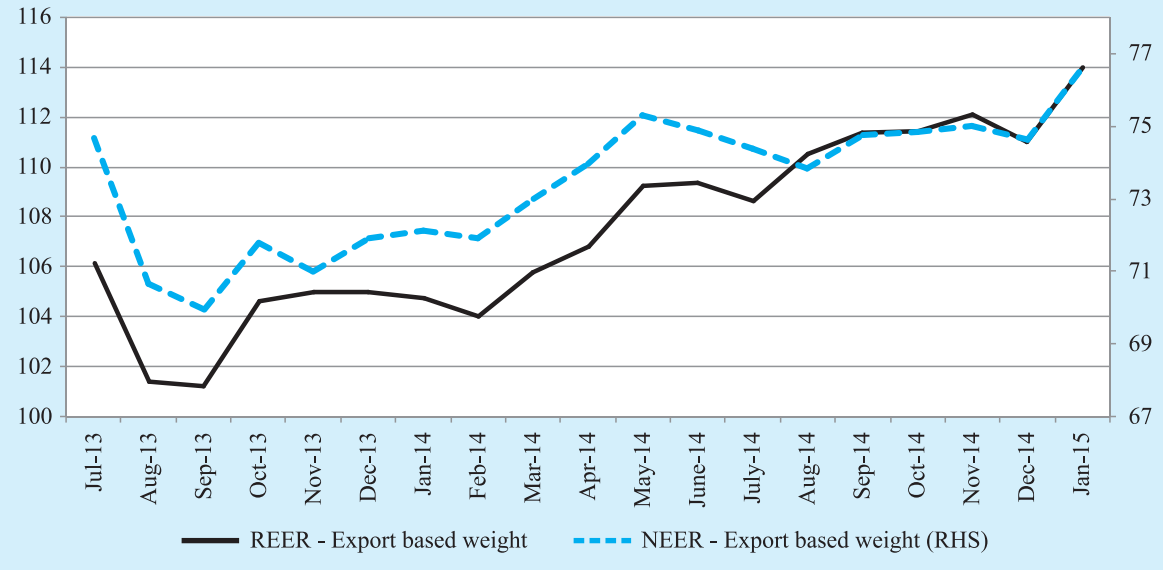
Source: **RBI.**

Two points are worth noting on the risks emanating from the Fed and Eurozone.

First, India may be vulnerable because a substantial portion of the foreign flows since March 2014 are interest sensitive. Of the total portfolio cumulative flows (US$ 38.4 billion), about US$ 23.8 billion have been portfolio debt flows. The decline in yields on government and corporate bonds shown in Figure 1.9 reflects these flows. Fed tightening could lead to reversal of some of these inflows, placing downward pressure on the rupee. However, India is more resilient today than in 2014 or 2013 not only because of greater reserves, but more importantly, due to a healthier macro-economic position. While complacency is never warranted, over-anxiety should also be kept at bay. In the medium-term, it is perhaps the trade challenge that is a greater source of concern (see section 1.11 below).

A larger issue on the external front is geo-strategic. If power used to flow from the barrel of a gun, in an increasingly inter-dependent economic world,

Figure 1.11: Nominal and Real Effective Exchange Rates-Export-Based Indices, July 2013 to January 2015



Source: **RBI.**

hard and soft power derive from a war-chest of foreign exchange reserves. China's abundant reserves have highlighted this fact. Reserves provide a cushion against shocks, creating economic and financial resilience. But they also create geo-political influence.

Today, China has de-facto become one of the lenders of last resort to governments experiencing financial troubles. It has also become one of the bigger providers of development assistance both bilaterally and plurilaterally. China, in its own heterodox and multiple ways, is assuming the roles of both an International Monetary Fund and a World Bank as a result of its reserves. The acquisition of reserves is not costless because it requires a policy of mercantilism and consequential distortion of financial and exchange markets. But there is a cost-benefit analysis that needs to be undertaken. The question for India, as a rising economic and political power, is whether it too should consider a substantial addition to its reserves, preferably its own reserves acquired though running cumulative current account surpluses, possibly targeting a level of US$ 750 billion- 1 trillion over the long run.

1.5 AGRICULTURE

The First Advance Estimate of Kharif crops (July-September 2014) indicates lower production compared to the last year. However, the estimate is generally revised upwards. The Rabi crops data released by the Directorate of Economics and Statistics recently indicates that although the total area coverage has declined, area under wheat has gone down marginally by 2.9 per cent. Nevertheless, for 2014-15, the CSO has estimated a positive growth rate of 1.1 per cent for agriculture despite lower rainfall that was only 88 per cent of long-period average, and following a bumper year in 2013-14. The CSO estimate is value-added while agricultural production data are volume based, hence positive agricultural GDP growth is not inconsistent with volume declines because input costs have declined sharply.

But perhaps a deeper shift in agriculture may be under way which calls for greater attention to this sector. The decade long shift in the terms of trade toward agriculture may have come to an end as global agricultural prices have peaked. This is illustrated in figure 1.12 which plots the terms of trade for agriculture according to two different measures. Both show a slow decline after 2010-11, following several years of improvement.[8]

As the terms of trade deteriorate and as rural incomes come under pressure (see also Figure 1.7), the political pressure for support will increase. Already, there have been proposals to raise tariffs in a number of sectors like oilseeds and pulses and to provide export subsidies in sugar.

One response in the short run must be to enhance targeted support for the vulnerable in agriculture, namely the small farmer and agricultural labourer. The MGNREGA program has the virtue of being reasonably well-targeted. The challenge here is to build on this feature and use the program to build assets such as rural roads, micro-irrrigation and water management, while also shoring up rural incomes.

In the medium-term, the time is ripe for a more broad-based response to the challenges in agriculture and to ensure that agriculture grows at about 4 percent on a sustained basis.

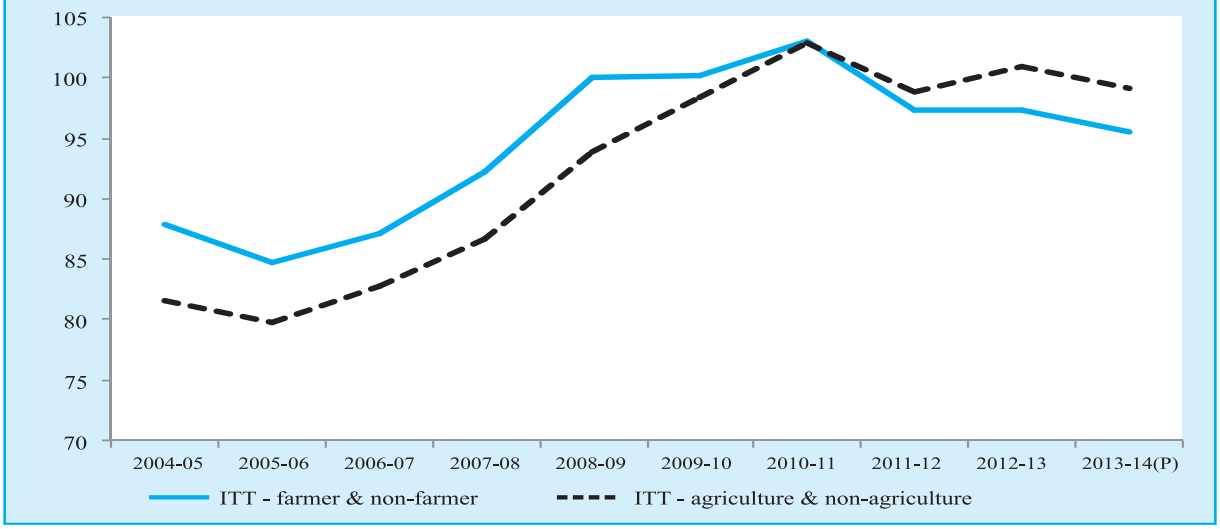
One of the most striking problems is how unintegrated and distortions-ridden are our agricultural markets (see chapter 8 of this volume, which also offers possible solutions). India needs a national common market for agricultural commodities by making the Agricultural Produce Market Committees (APMCs) just one among

[8] The TOT indices are based on the following formulae adopted by the Group (WG) in May 2012 under the chairmanship of Professor S. Mahendra Dev.

$$(1)\ \text{Index of Terms of Trade} = \frac{\text{Index of Price Received for Farm Products}}{\text{Index of Price Paid for Farm Inputs, Final Consumption and Capital Investment}} X100$$

$$(2)\ \text{Index of Terms of Trade} = \frac{\text{Index of Price Received for Farm Products and Agricultural Wages}}{\text{Index of Price Paid for Farm Inputs, Final Consumption and Capital Investment}} X100$$

Figure 1.12: Index of Agricultural Terms of Trade, 2004-05 to 2013-14



Source: **Refer to footnote 8.**

many options available for the farmers to sell their produce.

Rationalisation of subsidies and better targeting of beneficiaries through direct transfers would generate part of the resources for the public investment that is essential in research, education, extension, irrigation, water-management, soil testing, warehousing and cold-storage. Distortions emerging from various policies, including, exempting user charges for electricity and water need to be reduced, though better targeting and eliminating leakages.

The recommendations of the Shanta Kumar Committee provide useful suggestions for the future road-map of food-policy. The functioning of the Food Corporation of India needs to be revamped substantially.

There are also wide differences in the yields within states. Even the best of the states have much lower yield in different crops when compared to the best in the world. This is evident from the Table 1.1 below.

Vast amounts of cropped area (approximately 41 percent) are still unirrigated. Providing irrigation can improve yields substantially. For a shift in the underlying production function, investment in basic research will be necessary. This provides ample opportunity to increase production by bridging the yield-gap to the extent feasible within the climatic zone. Institutionally, the time may be ripe for re-assessing the role of the Indian Council of Agricultural Research (ICAR), its relationships with the state agricultural universities as well as with individual institutes (say the Indian Agricultural Research Institute or the National Dairy Research Institute), and whether research, education, and extension should be separated.

To provide efficient advance price-discovery to farmers and enable them to hedge price risks the Forward Markets Commission is being strengthened. The concern that there may be unnecessary speculation should be addressed though more effective regulation along the lines of the recommendations made by the Financial Sector Legislative Reforms Commission (FSLRC).

1.6 THE GROWTH-FISCAL POLICY CHALLENGE

India can balance the short-term imperative of boosting public investment to revitalize growth with the need to maintain fiscal discipline. Expenditure control and expenditure switching, from consumption to investment, both in the upcoming budget and in the medium term will be key.

Table 1.1: Crop Yield Comparison: India versus the World

Crop	India Highest Yield (State)	World Highest Yield
Paddy	Punjab - 3952	China - 6661
Wheat	Punjab - 5017	UK - 7360
Maize	Tamil Nadu - 5372	USA - 8858
Chickpeas	Andhra Pradesh - 1439	Ethiopia - 1663
Cotton	Punjab - 750	Australia - 1920
Rapeseed/Mustard Seed	Gujarat - 1723	UK - 3588

Note: Figures are in yield/kg/hectare and pertain to 2012.

The Medium-Term Fiscal Framework

Notwithstanding the challenging nature of the 2014-15 budget, elaborated in the *Mid-Year Economic Analysis* 2014-15, the Government will adhere to the fiscal target of 4.1 per cent of GDP. Despite weakness in revenue collection and delayed disinvestment, new excises on diesel and petrol (revenue yield of about ₹ 20,000 crores), reduced subsidies, and expenditure compression will ensure the commitment to discipline.

India can reconcile the requirements of fiscal consolidation and the imperative of boosting public investment to revive growth and crowd-in private investment provided the right lessons are learnt. How so?

Since this is the first full budget of the new government, and especially in light of the far-reaching recommendations of the Fourteenth Finance Commission, the time is ripe for reviewing the medium-term framework and setting targets for the upcoming year against that background and taking account of the lessons of recent history (Figure 1.13).

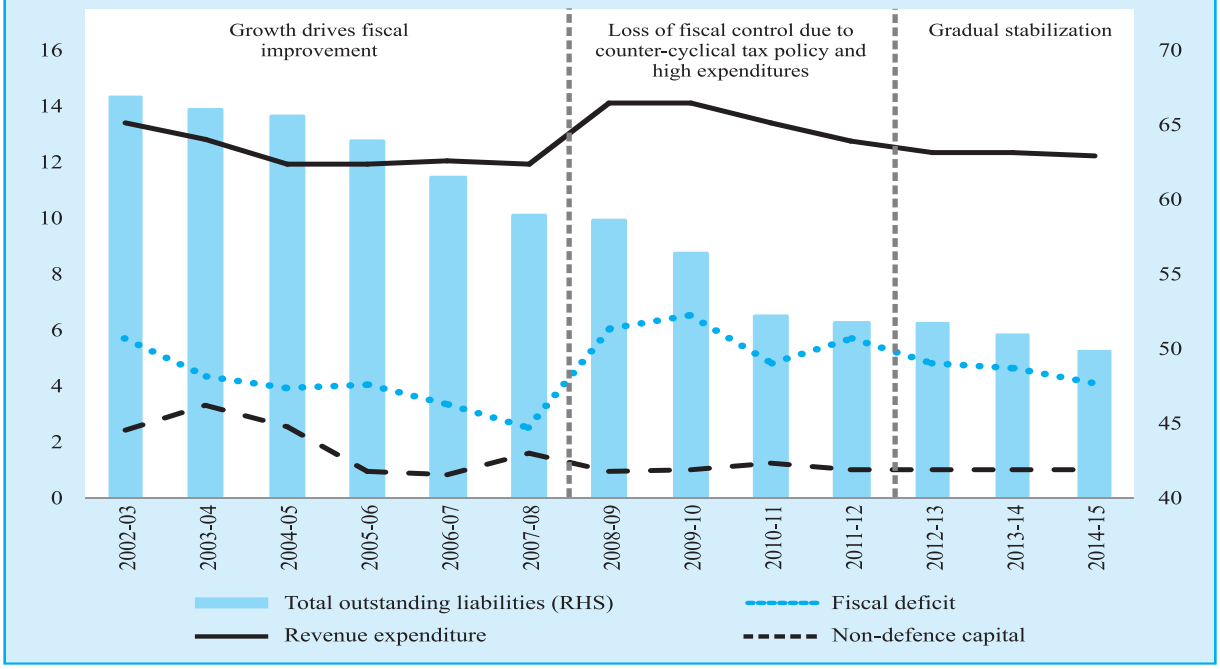
Three phases marked recent fiscal history. In the first (2002-08), rapid growth improved all fiscal aggregates, flows and stocks. But failure to control expenditure, especially revenue expenditure, towards the end of that phase, combined with excessive counter-cyclical policies in the second phase (2009-12) led to a loss of fiscal control that contributed to the near-crisis of 2013. A casualty has been low and stagnating capital expenditure. In the third phase (2013-today), a modicum of fiscal stability has been restored. This history suggests the following strategy going forward.

First, in the medium term, India must meet its medium-term target of 3 percent of GDP. This will provide the fiscal space to insure against future shocks and also to move closer to the fiscal performance of its emerging market peers. It must also reverse the trajectory of recent years and move toward the 'golden rule' of eliminating revenue deficits and ensuring that, over the cycle, borrowing is only for capital formation.

Second, the way to achieve these targets will be expenditure control and expenditure switching from consumption to investment. And the secular decline in capital expenditure in the last decade has undermined India's long run growth potential. From 2016-17, as growth gathers steam and as the GST is implemented, the consequential tax buoyancy when combined with expenditure control will ensure that medium term targets can be comfortably met. This buoyancy is assured by history because over the course of the growth surge in the last decade, the overall tax-GDP ratio increased by about 2.7 percentage points, from 9.2 percent in 2003-04 to 11.9 per cent in 2007-08 even without radical tax reform.

Third, the medium-term commitment to discipline cannot result in an Augustinian deferment of actions. In the upcoming year, too, fiscal consolidation must continue. However, the need for accelerated fiscal consolidation has lessened because macro-economic pressures have significantly abated with the dramatic decline in inflation and turnaround in the current account deficit. In these circumstances,

Figure 1.13: Recent Fiscal History, 2002-03 to 2014-15 (Percent of GDP)



***Source*: Budget Documents and CSO.**

***Note*: Numbers for 2013-14 and 2014-15 are revised estimates and budget estimates, respectively.**

especially if the economy is recovering rather than surging, pro-cyclical policy is less than optimal.

Debt dynamics also remain favourable going forward, ensuring a steady strengthening of public sector balance sheets. Further, accelerated fiscal consolidation will have to be conditioned in the upcoming fiscal year by a number of new and exceptional factors, such as implementing the recommendations of the Fourteenth Finance Commission, clearing the compensation obligations to the states for the reduction in the central sales tax in 2007-08 and 2008-09, and the need to increase public investment.

Nevertheless, to ensure fiscal credibility, and consistency with the medium-term goals, the upcoming budget should initiate the process of expenditure control to reduce both the fiscal and revenue deficits. At the same time, the quality of expenditure needs to be shifted from consumption, by reducing subsidies, toward investment. Broadly speaking, the additional space opened up, including through a reduction in subsidies and higher disinvestment proceeds, should be occupied by public investment. Increases in the tax-GDP ratio, stemming from the excise tax increases on petroleum products, will also help achieve both short and medium term fiscal goals.

1.7 Wiping Every Tear From Every Eye: The JAM Number Trinity Solution

The debate is not about whether but how best to provide active government support to the poor and vulnerable. Cash-based transfers based on the JAM number trinity—Jan Dhan, Aadhaar, Mobile— offer exciting possibilities to effectively target public resources to those who need it most. Success in this area will allow prices to be liberated to perform their role of efficiently allocating resources and boosting long-run growth.

Sixty eight years after Independence, poverty remains one of India's largest and most pressing problems. No nation can become great when the life chances of so many of its citizens are benighted by poor nutrition, limited by poor learning opportunities, and shrivelled by gender discrimination (discussed in section 1.13). The

recent Annual Survey of Education Report (ASER), which shows stagnation in learning outcomes over the past decade, makes for sobering reading (see Box in Volume 2, Chapter 9).

Economic growth is good for the poor, both directly because it raises incomes and because it generates resources to invest in the public services and social safety nets that the poor need. Growth – and the prospects and opportunities that it brings – also encourages individuals to invest in their own human capital. A recent study found strikingly that merely informing families in villages outside Bangalore that call centres were hiring educated women increased the likelihood that adolescent girls in those villages completed school[9].

However, growth must be complemented with effective state-delivered programs that raise the living standards of the most vulnerable in society. To be successful, anti-poverty programs must recognise that policies shape the incentives of individuals and firms, and also acknowledge the limited implementation capacity of the state to target and deliver public services to the poor.

Both the central and state governments subsidise a wide range of products with the expressed intention of making these affordable for the poor. Rice, wheat, pulses, sugar, kerosene, LPG, naphtha, water, electricity, fertiliser, iron ore, railways – these are just a subset of the products and services that the government subsidises. The estimated direct fiscal costs of these (select) subsidies are about ₹ 378,000 crore or about 4.2 percent of GDP. This is roughly how much it would cost to raise the expenditure of every household to that of a household at the 35th percentile of the income distribution[10] (which is well above the poverty line of 21.9 percent[11]). Table 1.2 below presents some rough, illustrative estimates of the cost of these subsidies and who benefits from them.

Price subsidies, no doubt provide help, but they may not have a transformative effect on the economic lives of the poor. For many subsidies, only a small fraction of the benefits actually accrue to the poor. For example, electricity subsidies benefit mainly the (relatively wealthy) 67.2 percent of households that are electrified[12]. A large fraction of subsidies allocated to water utilities are spent on subsidising private taps when 60 percent of poor households get their water from public taps[13].

Moreover, the implementation of subsidies can be fiendishly complex. In the case of fertilizers, they are firm-specific and import-consignment specific, they vary by type of fertilizer, and some are on a fixed-quantity basis while others are variable.

Subsidies are also susceptible to the brutal logic of self-perpetuation. In the case of sugar, to protect sugar cane producers high support prices are awarded; to offset this tax on mill owners, they are supported through subsidized loans and export subsidies; and then they are again taxed by placing restrictions on sales of molasses that are produced as a by-product.

Different subsidies also interact to hurt the poor. For example, fertiliser manufacturers do not have the incentive to sell their product in hard-to-access regions, since price controls mean that prices are similar everywhere, so freight subsidies on railways have been introduced to incentivise manufacturers to supply their produce widely. But those subsidies are sometimes insufficient, since freight rates are among the highest in the world, and intentionally so, to cross-subsidise artificially low passenger fares. This is an example of how a mesh of well-meaning price controls distort incentives in a way that ultimately hurt poor households.

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[9] Jensen, Robert, "*Do Labor Market Opportunities Affect Young Women's Work and Family Decisions? Experimental Evidence from India*" 2012, Quarterly Journal of Economics.

[10] Economic Survey of India 2014-15, Vol. I, Chapter 3.

[11] Planning Commission, July 2013, reporting on the Tendulkar Commission (http://planningcommission.nic.in/news/pre_pov2307.pdf)

[12] Census of India (2011), Source of Lighting.

[13] Do Current Water Subsidies reach the poor?, MIT and World Bank working paper (http://web.mit.edu/urbanupgrading/waterandsanitation/resources/pdf-files/WaterTariff-4.pdf)

Table 1.2 : How much do subsidies benefit the poor

Product	Producer subsidy	Consumer subsidy	Fiscal expenditure (Cr.)	Fiscal expenditure (percent of 2011-12GDP)	What share of benefits accrue to the poor?
Railways	N/A	Subsidised passenger fares[1]	₹ 51,000	0.57	The bottom 80 percent of households constitute only 28.1 percent of total passenger through fare on railways
Liquefied petroleum gas	N/A	Subsidy (now via DBT)	₹ 23,746	0.26	The bottom 50 percent of households only consume 25 percent of LPG
Kerosene	N/A	Subsidy via PDS	₹ 20,415	0.23	41 percent of PDS kerosene allocation are lost as leakage, and only 46 percent of the remainder is consumed by poor households
Fertiliser & nitrogenous commodities	Firm and nutrient specific subsidies to manufacturers. Import of urea regulated by the government	Maximum	₹ 73,790	0.82	Urea and P&K manufacturers derive most economic benefit from the subsidy, since farmers, especially poor farmers, have elastic demand for fertiliser
Rice (paddy)	Price floor (minimum support price)	Subsidy via PDS	₹ 129,000	1.14	15 percent of PDS rice is lost as leakage. Households in the bottom 3 deciles consume 53 percent of the remaining 85 percent that reaches households
Wheat					54 percent of PDS wheat is lost as leakage. Households in the bottom 3 deciles consume 56 percent of the remaining 46 percent that reaches households
Pulses	Price floor (MSP)	Subsidy via PDS	₹ 158	0.002	The bottom 3 deciles consume 36 percent of subsidised pulses
Electricity	Subsidy	Capped below market price	₹ 32,300	0.36	Average monthly consumption of bottom quintile = 45 kWh vs top quintile = 121 kWh. Bottom quintile captures only 10 percent of the total electricity subsidies, top quintile captures 37 percent of subsidy
Water	N/A	Subsidy	₹ 14,208	0.50	Most water subsidies are allocated to private taps, whereas 60 percent of poor households get their water from public taps
Sugar for sugar cane farmers, subsidy to mills	Minimum price	Subsidy via PDS	₹ 33,000	0.37	48 percent of PDS sugar is lost as leakage. Households in the bottom 3 deciles consume 44 percent of the remaining 52 percent that reaches households
Total			₹ 377,616	4.24	

All expenditure deciles are based on data from the household expenditure module of the 68th Round of the NSS (2011-12)
Railways – www.ncaer.org/free-download.php?pID=111 , p107 & NSS 68th round
LPG – Computations from the 68th Round of the NSS (2011-12)
Kerosene – *Economic Survey of India 2014-15, Vol. I ,Chapter 3.*
Fertiliser – *Agricultural Input Survey,* http://inputsurvey.dacnet.nic.in/nationaltable3.aspx
Rice & wheat – *Economic Survey of India 2014-15,Vol. I, Chapter 3.*
Pulses – Computations from the 68th Round of the NSS (2011-12)
Water – Report by MIT and World Bank http://web.mit.edu/urbanupgrading/waterandsanitation/resources/pdf-files/WaterTariff-4.pdf , p2
Sugar – Department of Food & Public Distribution (http://dfpd.nic.in/fcamin/sugar/Notice1.pdf)

Fertiliser subsides illustrate another difficulty with using price subsidies as a core anti-poverty strategy. The true *economic incidence of a subsidy* depends on the relative elasticities of demand and supply, with the party *less* responsive to price changes benefiting *more* from a subsidy. The ultimate aim of subsidising fertiliser is to provide farmers with access to cheap fertilisers to incentivise usage and cultivation of high-yielding varieties. Yet because it is likely that farmers' demand for fertiliser is more sensitive to prices[14] than fertiliser manufacturers' supply, the larger share of economic benefits from the price subsidy probably accrue to the fertiliser manufacturer and the richer farmer who accounts for a larger share of fertiliser consumption, not the beneficiary most in need, namely the poor farmer.

High minimum support for rice and wheat distort crop choice, leading to water-intensive cultivation in areas where water tables have been dropping like a stone, and ultimately induce greater price volatility in non-MSP supported crops which hurts consumers, especially poor households who have volatile incomes and lack the assets to weather economic shocks. High MSPs also penalise risk-taking by farmers who have ventured into non-traditional crops.

At first glance, kerosene seems a good candidate for price subsidies as it is popularly conceived to be consumed mostly by the poor, and yet work done in this Survey (Chapter 3) based on NSS data show that only 59 percent of subsidised kerosene allocated via the PDS is actually consumed by households, with the remainder lost to leakage, and only 46 percent of total consumption is by poor households. Even in the case of the food distributed via the PDS, leakages are very high (about 15 percent for rice and 54 percent for wheat, with most of these leakages concentrated in the APL segment).

This illustrates the importance of basing anti-poverty policy on data rather than popular perception. It also underscores the need for policymakers to acknowledge as a first-order concern the state's own constraints in implementing effective, well-targeted programs.

Technology is increasingly affording better means for the government to improve the economic lives of the poor. The JAM Number Trinity– ***J***an Dhan Yojana, ***A***adhaar and ***M***obile numbers— might well be a game changer because it expands the set of welfare and anti-poverty policies that the state can implement in future. These technological innovations have renewed academic interest in the potential of direct cash transfers to help the poor. Recent experimental evidence documents that unconditional cash transfers – if targeted well – can boost household consumption and asset ownership and reduce food security problems for the ultra-poor.[15]

Cash transfers can also augment the effectiveness of existing anti-poverty programs, like the MGNREGA. A recent study[16] reported evidence from Andhra Pradesh where MGNREGA and social security payments were paid through Aadhaar-linked bank accounts. Households received payments faster with the new Aadhaar-linked DBT system, and leakages decreased so much that the value of the fiscal savings – due to reduced leakages – were 8 times greater than the cost of implementing the program. Much of the leakage reduction resulting from biometric identification stems from fewer ghost beneficiaries. Indeed, the government is already realizing the gains from direct benefit transfers areas by paying cooking gas subsidies directly into the bank accounts of 9.75 crore recipients.

For the agriculture sector which is currently under stress, this evidence creates possibilities. The virtue

[14] One estimate suggests that farmers' demand for fertiliser falls by nearly 6.4 percent for a 10 percent increase in fertiliser prices. Dholakia, R.H. and Jagdip Majumdar, "*Estimation of Price Elasticity of Fertilizer Demand in India*", 2006, Working Paper.

[15] Johannes Haushofer & Jeremy Shapiro, "*Household Response to Income Changes: Evidence from an Unconditional Cash Transfer Program in Kenya*", 2013, Working Paper.

[16] Karthik Muralidharan, Paul Niehaus & Sandip Sukhtankar, "*Building State Capacity: Evidence from Biometric Smartcards in India*", 2014, Working Paper.

of MGNREGA, for all its deficiencies, is that it is self-targeting. If the program could lead to the creation of rural assets such as rural roads, micro-irrigation and water management infrastructure, and if leakages could be minimized through the JAM number trinity, rural India could witness both the creation of opportunity and protection of the vulnerable.

Today there are about 125.5 million Jan Dhan bank accounts[17], 757 million Aadhaar numbers, and approximately 904 million mobile phones[18]. It is possible to envisage that when the JAM trinity becomes linked, the goal of periodic and seamless financial transfers to bank accounts after identification through the Aadhaar number can be implemented with immeasurable benefits to helping the lives of the poor. The heady prospect for the Indian economy is that, with strong investments in state capacity, that *Nirvana* today seems within reach. It will be a *Nirvana* for two reasons—the poor will be protected and provided for; and many prices in India will be liberated to perform their role of efficiently allocating resources and boosting long-run growth. Even as it focuses on second and third generation reforms in factor markets, India will then be able to complete the basic first generation reforms. This will be the grand bargain in the political economy of Indian reforms.

1.8 Growth, private and public investment

"The balance sheet syndrome with Indian characteristics" creates a web of difficult challenges that could hold back private investment. Private investment must remain the primary engine of long-run growth. But in the interim, to revive growth and to deepen physical connectivity, public investment, especially in the railways, will have an important role to play.

Since the new government assumed office, a slew of economic reforms has led to a partial revival of investor sentiment. Tentative signs that the worst is over are evident for example in data that shows that the rate of stalled projects has begun to decline and that the rate of their revival is inching up (Figure 1.14).

But increasing capital flows are yet to translate into a durable pick-up of real investment, especially in the private sector. This owes to at least five interrelated factors that lead to what the *Mid-Year Economic Analysis* called the "*balance sheet syndrome with Indian characteristics.*"

First, hobbled by weak profitability and weighed down by over-indebtedness, the Indian corporate sector is limited in its ability to invest going forward (the flow challenge). One key indicator of profitability—the interest cover ratio, which if less than one implies firms' cash flows are not sufficient to pay their interest costs—has also worsened in recent years (Figure 1.15). Further, as the Figure 1.16 shows, the debt-equity ratios of the top 500 non-financial firms have been steadily increasing, and their level now is amongst the highest in the emerging market world.

Second, weak institutions relating to bankruptcy means that the over-indebtedness problem cannot be easily resolved (the stock and 'difficulty-of-exit' challenge). This is reflected in the persistence of stalled projects which have been consistently around 7 to 8 percent of GDP in the last four years.

Third, even if some of these problems were solved, the PPP model at least in infrastructure will need to be re-fashioned to become more viable going forward (the institutional challenge).

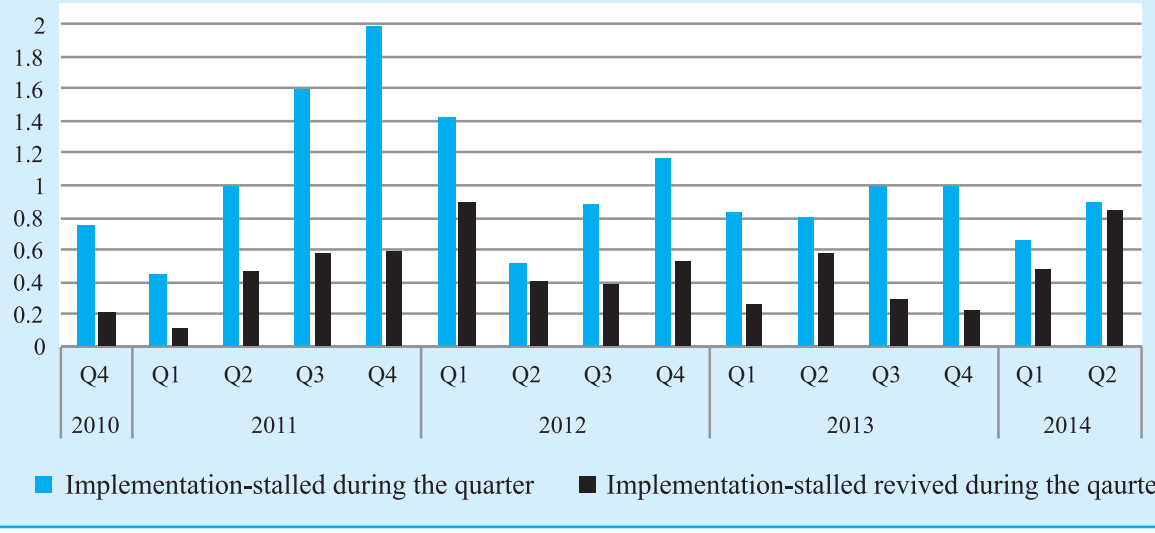
Fourth, since a significant portion of infrastructure was financed by the banking system, especially the public sector banks, their balance sheets have deteriorated.[19] For example, the sum of non-performing and stressed assets has risen sharply, and for the PSBs they account for over 12 percent

[17] Pradhan Mantri Jan-Dhan Yojana progress report (http://www.pmjdy.gov.in/account-statistics-country.aspx)

[18] http://www.trai.gov.in/WriteReadData/WhatsNew/Documents/Presspercent20Release-TSD-Mar,14.pdf.

[19] According to RBI's Financial Stability Report, December 2014, the contribution of mining, iron and steel, textiles, aviation and other infrastructure to total advances stands at 28 percent whereas their contribution in stressed assets is 54 percent.

Figure 1.14: Overview of Stalled Projects, 2011Q1 to 2014Q2 (lakh crore)



Source: **CMIE.**

of total assets (Figure 1.17). Uncertainty about accounting and valuation, and indeed the history of banking difficulties across time and space, counsel in favor of over- rather than under-recognizing the severity of the problem. When banks' balance sheets are stressed they are less able to lend, leading to reduced credit for the private sector (the financing challenge).[20]

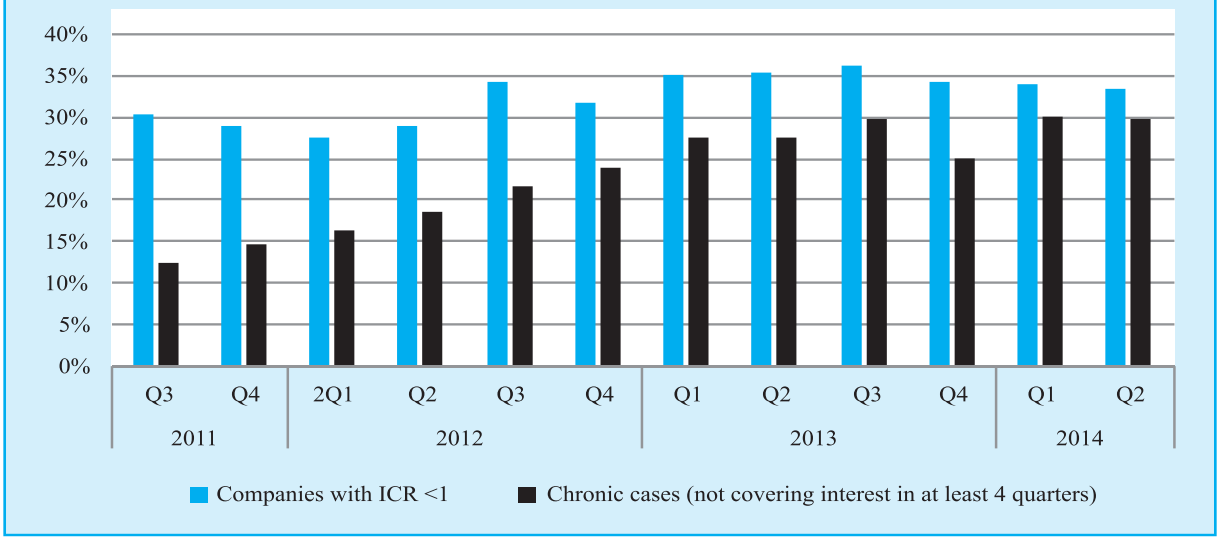
Finally, in a peculiarly Indian twist, this financing problem is aggravated by generalized risk-aversion (the challenge of inertial decision-making). For the public sector banks in particular, which are exposed to governmental accountability and oversight, lending in a situation of NPAs is not easy because of a generic problem of caution, afflicting bureaucratic decision-making.

Actions being undertaken by the government to enhance the supply of critical inputs such as coal and gas, as well as regulatory reform, will alleviate some of these constraints, especially in the public sector where the data identify them as being regulatory in character (clearances and land acquisition). Steps are being taken to address the institutional problem, by creating a better framework for PPPs and for infrastructure investment in general. The RBI is making efforts to get banks to recognize their bad loan problems, and address them. But the impact of these initiatives has so far been limited. The stock of stalled projects remains extraordinarily high; firm profitability, especially for firms working in the infrastructure sector, remains low. So, questions on the pace and strength of recovery of private sector investment remain open.

If the weakness of private investment offers one negative or indirect rationale for increased public investment, there are also more affirmative rationales. India's recent PPP experience has demonstrated that given weak institutions, the private sector taking on project implementation risks involves costs (delays in land acquisition, environmental clearances, and variability of input supplies, etc.). In some sectors, the public sector may be better placed to absorb some of these risks. Further, there continue to remain areas of infrastructure – rural roads and railways that provide basic physical connectivity- in which private investment will be under-supplied. One irony is that while financial and digital connectivity are surging ahead, basic physical connectivity appears to lag behind.

[20] Suggestions on how capital markets can play a greater role in infrastructure financing are elaborated in last year's Economic Survey.

Figure 1.15: Companies with ICR<1, 2011Q3 to 2014Q2



***Source*: Credit Suisse (sample of 3,700 listed companies).**

Figure 1.16A: Debt to Equity of Non-Financial Corporates (BSE 500), 2009-10 to 2014-15

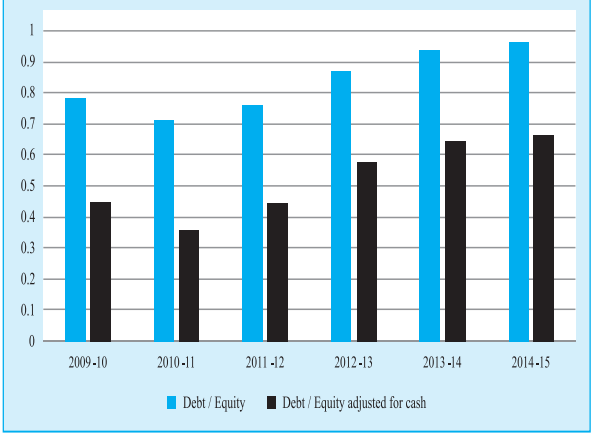
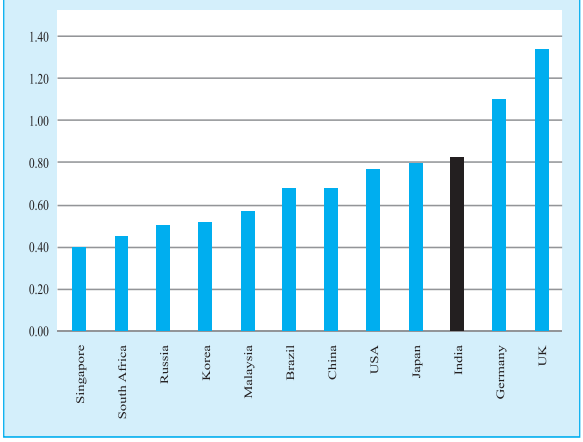


Figure 1.16B: Debt to Equity of Non-Financial Corporates (MSCI Index) as of December 2014

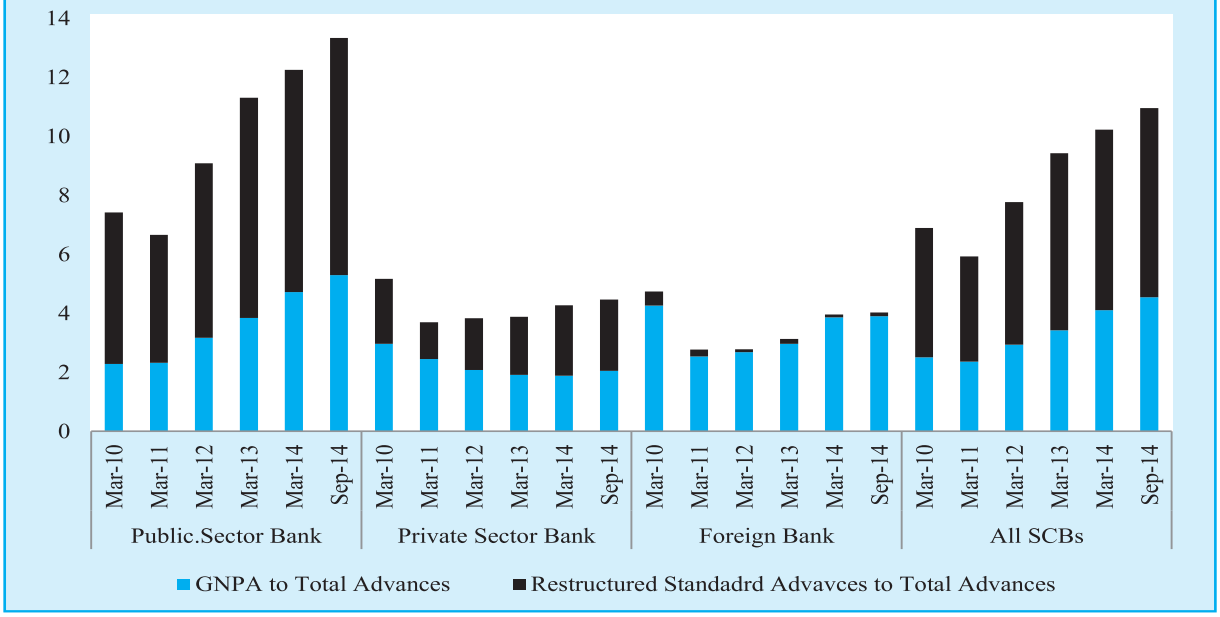


***Source*: Bloomberg and J.P. Morgan.**

Therefore, as emphasized in the *Mid Year Economic Analysis 2*014-15 it seems imperative to consider the case for reviving targeted public investment as an engine of growth in the short run not to substitute for private investment but to complement it and indeed to crowd it in. The two challenges of raising public investment relate to financing and capacity. Financing issues were addressed in section 1.6.

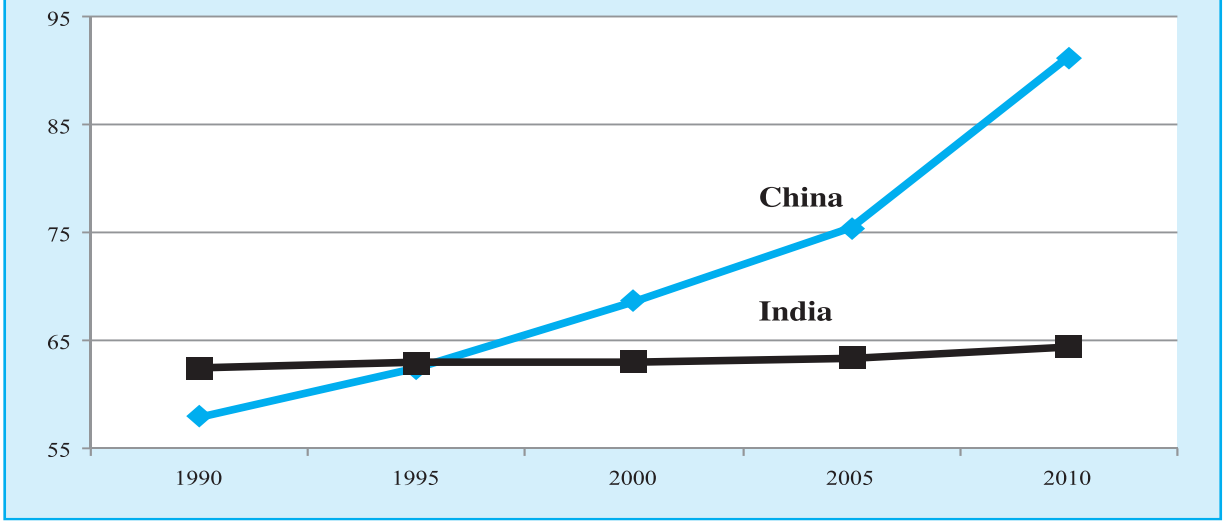
Public sector implementation capacity in India is variable. But the analysis in chapter 6 of this volume suggests that the Indian Railways could be the next locomotive of growth. Greater public investment in the railways would boost aggregate growth and the competitiveness of Indian manufacturing substantially. In part, these large gains derive from the current massive under-investment in the railways. For example, China and India had similar network capacities in until the mid-1990s but because it invested eleven times as much as India in per-capita terms, China's capacity and efficiency have surged (Figure 1.18). In contrast, stagnant investment has led to congestion, strained capacity, poor services, weak financial health, and deteriorating competitiveness of logistics-intensive sectors, typically manufacturing. Congestion has

Figure 1.17: Gross NPA and Restructured Assets as per cent of total advances



Source: **RBI.**

Figure 1.18: Capacity Addition-Indian and China Railways, 1990 to 2010 (route km '000)



Source: **World Bank.**

effectively led to the railways ceding a significant share in freight traffic to the roads sector. This is not a welcome development since rail transport is typically more cost and energy efficient. The profits generated by freight services have cross-subsidised passengers services and Indian freight rates (PPP adjusted) remain among the highest in the world.

What the previous NDA government did for roads, the present government could do for the railways, strengthening the physical connectivity of the Indian population, with enormous benefits in terms of higher standards of living, greater opportunities, and increased potential for human fulfillment.

1.9 The Banking Challenge

Banking is hobbled by policy, which creates double financial repression, and by structural factors, which impede competition. The

solution lies in the 4 Ds of deregulation (addressing the statutory liquidity ratio (SLR) and priority sector lending (PSL)), differentiation (within the public sector banks in relation to recapitalisation, shrinking balance sheets, and ownership), diversification (of source of funding within and outside banking), and disinterring (by improving exit mechanisms).

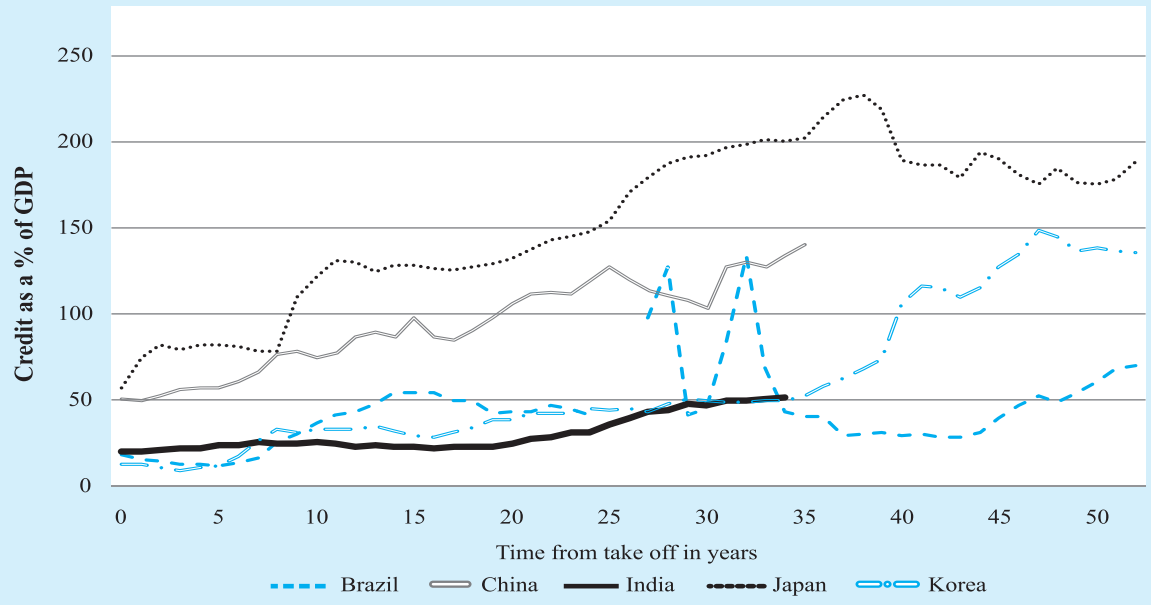
Discussions of banking in India have recently focused on the problem of stressed and restructured assets, the challenges in acquiring the resources to meet the looming Basel III requirements on capital adequacy, including the respective contributions of the government and markets, and the need for governance reform reflected in the 2013 Nayak Committee Report. 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.

A first question that arises is whether India is credit-addled and overbanked.

One way to assess this is to see whether Indian banks were unusually imprudent in the boom phase.[21] Figure 1.19 plots the domestic credit to GDP of a number of countries, as defined by the World Bank, during their period of rapid growth (these periods vary across countries) since the year of "takeoff". It shows that 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. Indian credit grew no more rapidly than elsewhere. For example, the Japanese and Chinese financial systems lent much more during their take-off years.

On the question of India being over-banked, we assess the share of banks in total credit for a cross-section of countries (Figure 1.20). The figure plots the ratio of banking credit to total credit in the economy less the government, which includes firms and household[22], against the level of development, as measured by the log of GDP per capita in PPP

Figure 1.19: Domestic Credit to GDP since Takeoff (Per cent)



***Source*: World Bank. Notes: Years of takeoff- Brazil, Japan and Korea: 1961, China: 1978, India: 1979.**

[21] In Chapter 5 of this volume, we also test for how credit-addled India is based on other cross-sectional and time-series comparisons.

[22] As defined by the Bank for International Settlements, this includes 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.

terms. The chart shows that India is not an outlier: that is for its level of development, the share of bank credit is neither unusually high nor low. Of course, 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 may be necessary and desirable.

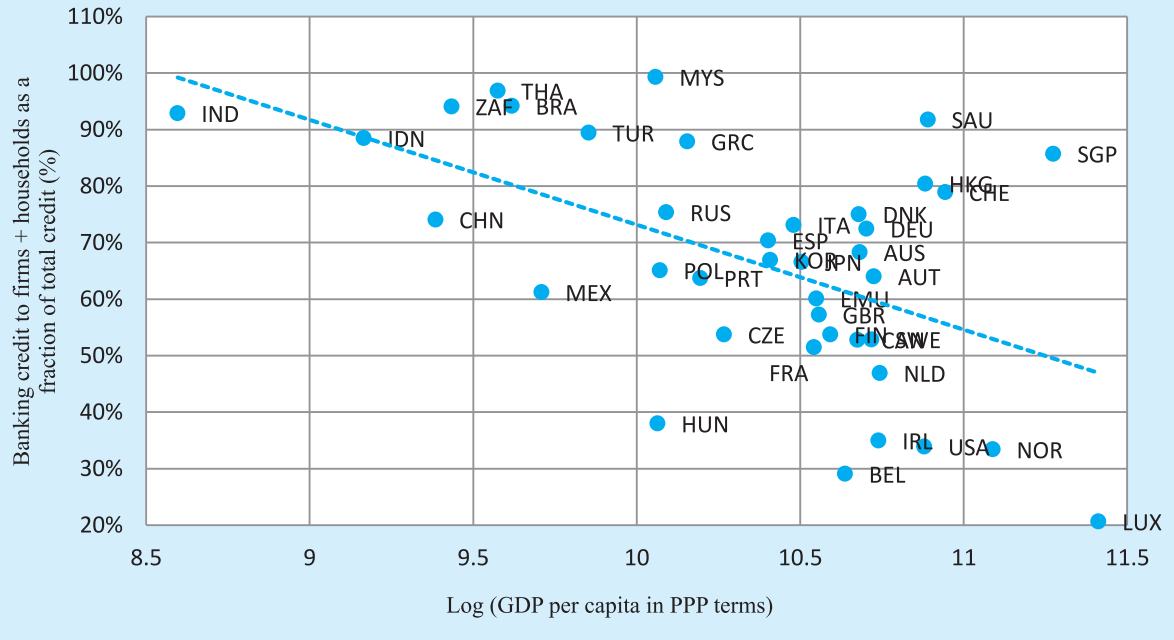
Where then does the problem lie? The problems in the Indian banking system lie elsewhere and fall into two categories: policy and structure.

The policy challenge relates to financial repression. The Indian banking system is afflicted by what might be called "double financial repression" which reduces returns to savers and banks, and mis-allocates capital to investors. 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[23]. Financial repression on the liability side has arisen from high inflation since 2007, leading to negative real interest rates, and a sharp reduction in household 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 over- exuberance of the PSBs that financed this investment-led growth phase, the reticence of the private sector was striking (see Figure 1.21).

Second, there is wide variation in the performance of the public sector banks measured in terms of prudence and profitability. Figure 1.22 plots the

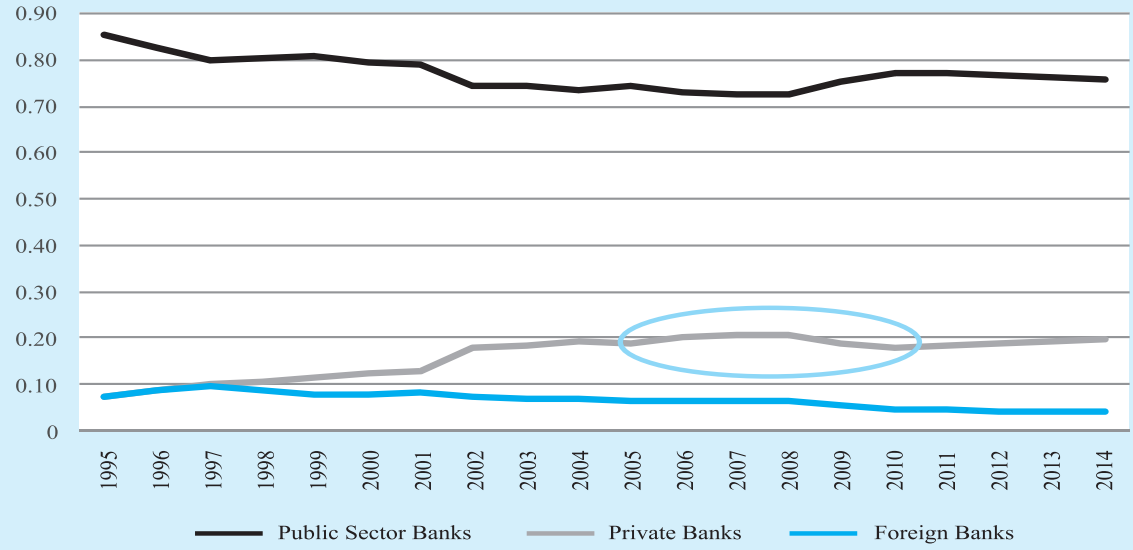
Figure 1.20: Banking Credit as a Fraction of Total Credit for 2014



***Source*: Bank for International Settlements.**

[23] More details can be found in Chapter 5 of this volume.

Figure 1.21: Ratio to total advances (fraction), 1995-2014



***Source*: RBI.**

Leverage Ratio and Return on Assets of public sector and private sector banks[24]. In addition it plots (as dotted lines) the variation within the public sector banks. In terms of actual numbers of leverage ratios, taking a three year average, the most prudent PSB was 1.7 times more capitalised than the most imprudent one.

Despite the significant variation in public sector banks, it is also striking that on these measures, the best public sector banks perform well below private sector banks on average, recognising of course that PSBs may be burdened with greater social obligations that places them at a competitive disadvantage relative to the private banks. The subtler problem with public sector ownership is that exit from debt difficulties is proving very difficult. If that is so, there is extra reason to worry about public sector ownership *ex-ante*.

The diagnosis above (and in chapter 5) leads to a four-fold policy response captured in 4 Ds: *deregulate, differentiate, diversify,* and *disinter.* As the banking sector exits the financial repression on the liability side, aided by the fall in inflation, this is a good opportunity to consider relaxing the asset side repression. Easing SLR requirements will provide liquidity to the banks, depth to the government bond market, and encourage the development of the corporate bond market. Second, PSL norms too can be re-assessed. There are two options: one is indirect reform bringing more sectors into the ambit of PSL, until in the limit every sector is a priority sector; and the other is to redefine the norms to slowly make PSL more targeted, smaller, and need-driven.

There must be differentiation between the PSBs and the recent approach to recapitalization adopted by the government is a step in the right direction. One size fits all approaches such as governance reform cannot be the most appropriate. Differentiation will allow a full menu of options such as selective recapitalization, diluted government ownership, and exit.

[24] *Leverage ratio* is defined by the RBI as ratio of total assets to total capital (Tier 1 + Tier 2), the international definition, for example as laid out by the Bank for International Settlements, is typically the inverse. For the purpose of this volume we will use the international definition. *Return on Assets* (ROA) is a profitability ratio which indicates the net profit (net income) generated on total assets. It is computed by dividing net income by average total assets.

Figure 1.22A: Banking Indicators: Leverage Ratio and Return on Assets, 2001 to 2014.

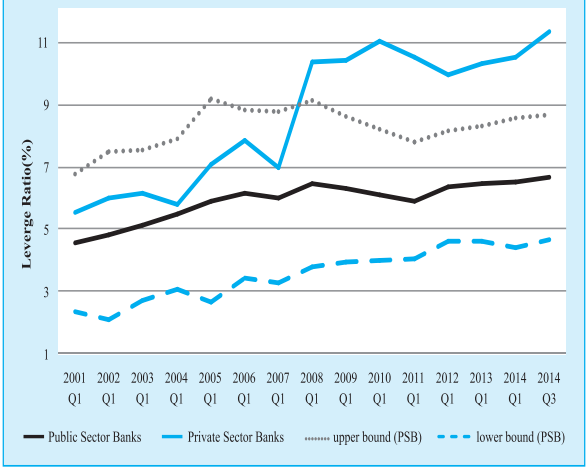
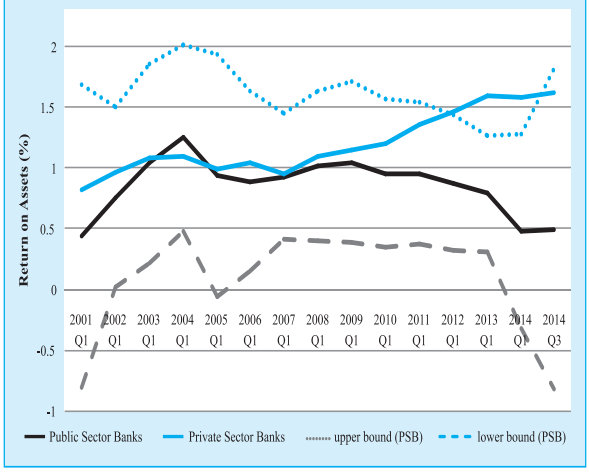


Figure 1.22B: Banking Indicators: Leverage Ratio and Return on Assets, 2001 to 2014.



***Source*: RBI.**

"Diversify" implies that there must be greater competition within the banking system, including liberal licensing of more banks and different types of banks. There must also be greater competition from capital, especially bond, markets. Facilitating that will require exiting from asset side repression, namely the phasing down of the SLRs which would also help develop bond markets.

"Disinter" implies that exit procedures must become more efficient. Debt Recovery Tribunals are over-burdened and under-resourced, leading to tardy resolution. The ownership structure and efficacy of Asset Restructuring Companies, in which banks themselves have significant stakes of banks, creates misaligned incentives. The Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act seems to be implemented most vigorously against the smallest borrowers and MSEs. Mechanisms for distributing pain efficiently amongst promoters, creditors, consumers, and taxpayers without creating moral hazard incentives for imprudent lending by banks are necessary. One important lesson is that the clean-up is as important as the run-up.

1.10 Manufacturing, Services and the Challenges of "Make in India"

Transformational sectors could be in registered manufacturing or services. Raising economy-wide skills must complement efforts to improve the conditions for manufacturing.

The Prime Minister has made the revival of Indian manufacturing a top priority, reflected in his "Make in India" campaign and slogan. The objective is as laudable as the challenges it faces are daunting because Indian manufacturing has been stagnant at low levels, especially when compared with the East Asian successes[25].

Two questions arise. Is manufacturing the sector that *Make in India* focus on? What instruments should be deployed to realize the objective? Consider each in turn.

New academic work suggests that there is a complementary way of thinking about transformational sectors in and for development. Growth theory suggests that transformational sectors should be assessed in light of their underlying characteristics and not just in terms of

[25] The recent upward revisions to the level of manufacturing share in GDP are to some extent statistical rather than "real". Moreover, even the revised data do not change the pattern of trend decline in this share. What has happened is the statistical opposite of the technological change which Jagdish Bhagwati ["*Splintering and Disembodiment of Services and Developing Nations",* 1984, The World Economy, 7(2)] referred to as 'splintering' services from goods.

the traditional manufacturing-services distinction (Table 1.3). Five such important characteristics can be identified.

- High *levels* of productivity, so that incomes can increase;
- Rapid rate of *growth* of productivity in relation to the world frontier (international convergence) as well as rapid growth toward the national frontier (domestic convergence);
- A strong ability of the dynamic sector to attract resources, thereby spreading the benefits to the rest of the economy;
- Alignment of the dynamic sector with a country's underlying resources, which typically tends to be unskilled labor; and
- Tradability of the sector, because that determines whether the sector can expand without running into demand constraints, a feature that is important for a large country like India.

In India, it is important to remember that when thinking about manufacturing as a transformational sector it is registered or formal manufacturing that possesses some of the critical prerequisites such as high productivity and rapid growth in productivity. Unregistered manufacturing cannot be a transformational sector. Thus, efforts to encourage formalization will be critical.

The Indian evidence is that some sub-sectors in services such as telecommunications and finance are like registered manufacturing in being highly productive and dynamic. However, these sectors, like registered manufacturing, have not been able to attract large amounts of unskilled labour, limiting the benefits of the underlying dynamism. In other words, the dynamic sectors have tended to be skill-intensive sectors in which India does not necessarily have comparative advantage. An exception is construction which is unskilled labour-intensive and which has been fairly dynamic. Construction, however, is not a tradable sector, which also limits its potential as a transformational sector.

One policy conclusion that follows is that efforts to improve the conditions for labor-intensive manufacturing need to be complemented with rapid skill upgradation because skill-intensive sectors are dynamic sectors in India and sustaining their dynamism will require that the supply of skills keeps

Table 1.3: Transformational Properties of Different Sectors

Feature	Registered Manufacturing	Trade, Hotels, and Restaurants	Transport, Storage and Communications	Financial Services and Insurance	Real Estate and Business Services, etc.	Construction
1. High productivity	Yes	No	Not really	Yes	Yes	No
2A. Unconditional domestic convergence	Yes	Yes	Yes	Yes	Yes	Yes
2B. Unconditional international convergence	Yes, but not for India	No	No	Yes	Yes	Yes
3. Converging sector absorbs resources	No	Somewhat	Somewhat	No	Somewhat	Yes
4. Skill profile matches underlying endowments	Not really	Somewhat	Somewhat	No	No	Yes
5. Tradable and/ or replicable	Yes	No	Somewhat	Yes	Somewhat	No

pace with the rising demand for these skills; otherwise even these sectors could become uncompetitive. In other words, the Prime Minister's Skill India objective should be accorded high priority along with, and indeed in order to realize, "Make in India".

We turn next to the means. What policy interventions can help realize "Make in India" They can be placed in three categories in decreasing order of effectiveness and increasing order of controversy.

The uncontroversial responses consist of improving the business environment by making regulations and taxes less onerous, building infrastructure, reforming labour laws, and enabling connectivity– all these would reduce the cost of doing business, increase profitability, and hence encourage the private sector, both domestic and foreign, to increase investments. Indeed, these measures would not just benefit manufacturing, they would benefit all sectors.

The next set of responses—what might loosely be called "industrial policy"— would target the promotion of manufacturing in particular: providing subsidies, lowering the cost of capital, and creating special economic zones (SEZs) for some or all manufacturing activity in particular.

The final set of responses—what might be called "protectionist"—would focus on the tradability of manufacturing, and hence consist of actions to: shield domestic manufacturing from foreign competition via tariffs and local content requirements; and provide export-related incentives. The effectiveness of these actions is open to debate given past experience. Moreover, they would run up against India's external obligations under the WTO and other free trade agreements, and also undermine India's openness credentials.

The risk to avoid is undue reliance on the latter two, especially if it leads to detailed micro-intervention, involving sector-specific tariff and tax changes and sector-specific grant of incentives. In this context, an intervention that can be immediately implemented, that can have large impacts, and that is win-win, is to eliminate the current *negative protection* facing Indian manufacturing (Box 1.4)

1.11 The Trade Challenge

Trade outcomes have been stagnating. The trading environment is becoming more challenging as the buoyancy of Indian exports has declined with respect to world growth, and as the negotiation of mega-regional trading arrangements threatens to exclude India.

Rapid and sustained rates of growth are associated with rapid rates of export growth. Few countries, if any, have grown at 7 plus growth rates on the basis of the domestic market alone. Indeed, as Ostry et. al. (2006)[26] show, sustained growth spurts are almost always associated with an average rise in manufacturing exports to GDP ratios over their growth episodes of about 36 percentage points. India should not expect to be any different.

If that is so, what is the prognosis for India? During India's rapid growth phase between 2002-03 and 2008-09, the ratio of exports of services to GDP increased dramatically, from 4.0 percent to nearly 9.0 percent. In contrast, manufacturing exports were less buoyant (Figure 1.23). After the global financial crisis, however, the roles seem to have been reversed; manufacturing exports seem to have done better than services exports. More worrisome, however, both have slowed down in the last five years which does not augur well.

A similar pattern emerges when we compute the buoyancy of Indian export growth (of goods and services) with respect to GDP growth of the world (Figure 1.24). In the early 2000s, this buoyancy was high and rising, particularly for services. Every 1 percent growth in world GDP was associated with a 3 percent growth in Indian exports of services in 2001, which rose to over 8 percent a few years

[26] Johnson, Simon, Jonathan D. Ostry, and Arvind Subramanian, *"The Prospects for Sustained Growth in Africa; Benchmarking the Constraints,"* 2007, IMF Working Papers 07/52, International Monetary Fund.

Box 1.4: "Make in India" Not by Protecting but by Eliminating Negative Protectionism

Eliminating all the exemptions for the countervailing duty (CVD) will eliminate the negative protection facing Indian manufacturers, and help the "Make in India" initiative, without violating India's international obligations.

There is one response that would help manufacturing and the "Make in India" initiative without being as difficult as improving the business environment, and as controversial and expensive as the industrial policy or protectionist response: eliminating the exemptions in the countervailing duties (CVD) and special additional duties (SAD) levied on imports. Why will this help?

It is a well-accepted proposition in tax theory that achieving neutrality of incentives between domestic production and imports requires that all domestic indirect taxes also be levied on imports. So, if a country levies a sales tax, value added tax (VAT), or excise or GST on domestic sales/production, it should also be levied on imports.

India's current indirect tax system, however, acts sometimes to favour foreign production over domestically produced goods.

The CVD, which is levied to offset the excise duty imposed on domestic producers, is not applied on a whole range of imports. These exemptions can be quantified. The effective rate of excise on domestically-produced non-oil goods is about 9 percent. The effective collection rate of CVDs should theoretically be the same but is in actual fact only about 6 percent. The difference not only represents the fiscal cost to the government of ₹ 40,000 crore, it also represents the negative protection in favour of foreign produced goods over domestically produced goods.

Three important nuances need to be noted here. First, it might seem that CVD exemptions on inputs help manufacturers by reducing their input costs. But under the current system and in future when the GST is implemented, the CVD on inputs can always be reclaimed as an input tax credit. So, CVD exemptions do not provide additional relief.

The second relates to a situation when both the excise and CVD are both exempted. This may seem apparently neutral between domestic production and imports but it is not. The imported good enters the market without the CVD imposed on it; and, because it is zero-rated in the source country, is not burdened by any embedded input taxes on it. The corresponding domestic good does not face the excise duty, but since it has been exempted, the input tax credit cannot be claimed. The domestic good is thus less competitive relative to the foreign good because it bears input taxes which the foreign good does not.

Third, the rationale advanced for exempting many imported goods from CVD is that there is no competing domestic production. This argument is faulty because the absence of competing domestic production may itself be the result of not having the neutrality of incentives that the CVD creates. Domestic producers may have chosen not to enter because the playing field is not level.

Indian tax policy is therefore effectively penalising domestic manufacturing. How can this anomaly be remedied? Simply by enacting a well-designed GST preferably with one, internationally competitive rate and with narrowly defined exemptions. In one stroke the penalties on domestic manufacturing would be eliminated because the GST (central and state) would automatically be levied on imports to ensure neutrality of incentives. In effect, India would be promoting domestic manufacturing without becoming protectionist and without violating any of its international trade obligations under the World Trade Organisation (WTO) or under Free Trade Agreements (FTAs).

In the meantime, the effect of the GST can be partially simulated by eliminating the exemptions applied to CVD. The default situation should be an exemptions-free regime. If particular sectors seek relief from the CVD, they should be required to make their case at the highest political level.

In a sense, India finds itself in a de-facto state of negative protection on the one hand, and calls for higher tariffs on the other. It is win-win to resist these calls that would burnish India's openness credentials and instead eliminate unnecessary and costly negative protection.

later, stabilizing at around 5 just prior to the financial crisis. Thereafter, it has been in steady decline and the most recent estimate suggests a buoyancy of one. The pattern is broadly similar for manufactured exports, although it was less buoyant than services in the boom phase.[27]

[27] The declining elasticity of global trade to global growth is documented in Constantinescu, C., A Mattoo and M Ruta (2015) "*The Global Trade Slowdown: Cyclical or Structural?*" World Bank Policy Research Working Paper, WPS-7158.

Figure 1.23: Exports of Manufactured Goods and Services (Per cent of GDP)

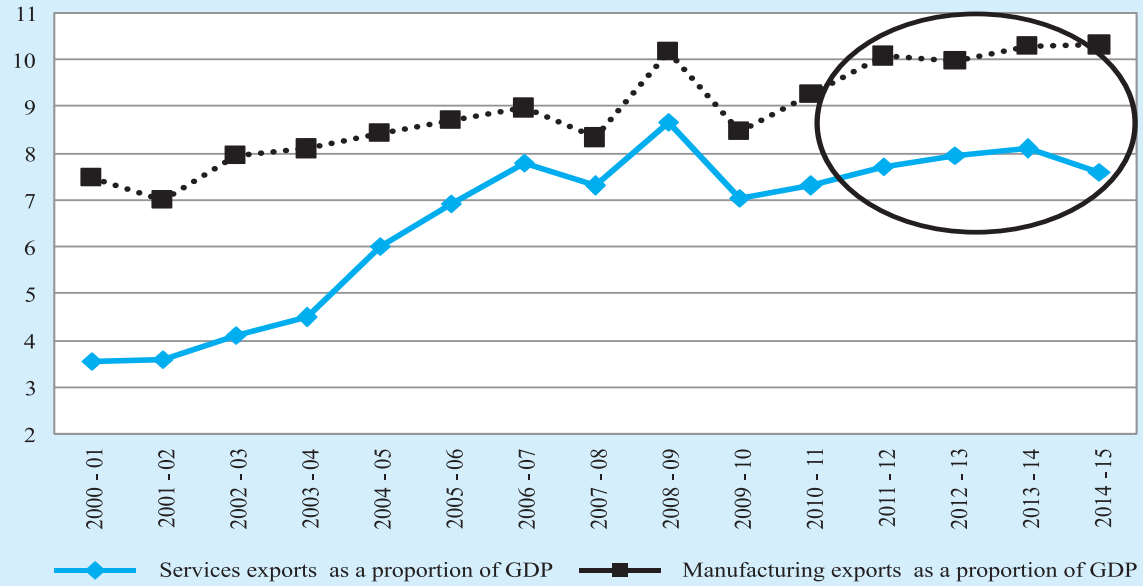
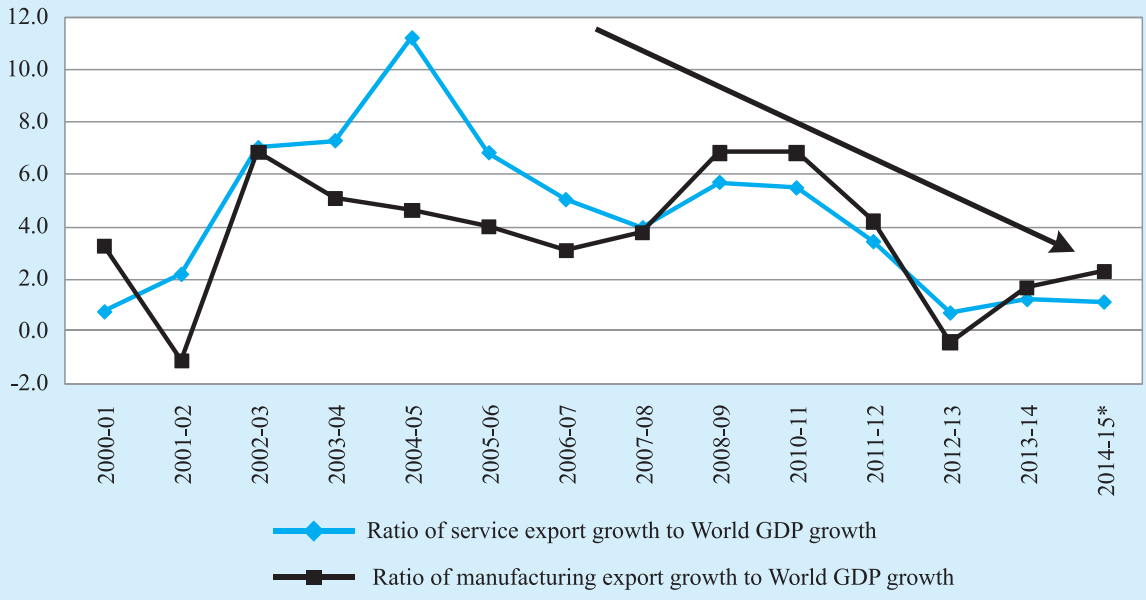


Figure 1.24: Buoyancy of Indian Exports Relative to Foreign Growth, 2000-01 to 2014-15 (Excluding 2009-10)



Source: IMF, WEO, DGCI&S and RBI.

Note: The buoyancy calculations are based on a three-year moving average. It excludes the year 2009-10 because a dramatic decline in exports renders the buoyancy calculation difficult to interpret.

Combining the two charts, the message for India seems to be that the external trading environment is encountering two sets of headwinds: first, a slowdown in world growth which will reduce Indian exports; and second, for any given world growth, export growth will be even lower because of trade's declining responsiveness.

And, India must be especially watchful about services exports—an engine of growth—which have slowed markedly. These headwinds are, of

course, in addition to the domestic factors that are contributing to the slowdown of export growth: weak infrastructure and challenging labour laws in the case of manufacturing, and rising wages and scarcity of skilled labour in the case of services.

In addition to the deteriorating external environment for trade, India has to contend with a rapidly changing policy environment. As the new government prepares to re-invigorate the Indian economy, it will encounter that the international trade landscape is substantially changing in three significant ways.

First, the phenomenon of global value-added chains based on fragmenting/unbundling successive stages of production and locating them at lowest cost destinations have become a defining, even if declining, feature of trade, especially in Asia. India has been slowly integrating into these chains, but at lower levels than most other dynamic Asian economies.

Second, negotiations on mega-regional agreements have been seriously initiated. Trade integration within Asia and between Asia and the United States will advance significantly if and when the Trans-Pacific Partnership (TPP) is negotiated and ratified. Similarly, the markets of North American and Europe will be brought together if and when the Trans-Atlantic Trade and Investment Partnership (TTIP) are concluded. Together, these two agreements will cover about half of world trade.

And third, China, which until recently has been comfortable with the status quo, may be on the verge of changing from passive bystander to active participant, wanting to engage in, and possibly shape, the formation of the next round of trade rules. This change is a reaction to the domestic imperatives of re-balancing the economy, which will require major liberalization of the Chinese economy; and to the fear of being excluded by American trade initiatives, including TPP and TTIP. China is also at the center of the Regional Comprehensive Economic Partnership (RCEP) which includes India, the Association of South East Asian Nations (ASEAN) countries, as well as Japan, Korea, Australia and New Zealand.

How should India react to this global shift in trade realities? It has two choices: measured integration (the status quo and/or RCEP) or ambitious integration (via the TPP). Measured integration would involve a slow but steady pace of domestic reform dictated by India's political constraints and capacity which could only sustain regional agreements of the kind India has negotiated with Asian partners: relatively few obligations, generous exemptions and exceptions, and lenient timetables for implementation.

The risk in the status quo scenario is one of India being excluded from large integrated markets with reduced trading possibilities, and because of the nature of global value chains in which trade, investment, and intellectual property are enmeshed, also reduced investment possibilities. (Joining RCEP might help but not fully since the expectation is that the overall standards in RCEP will be weaker than under the TPP and TTIP). There will not only be the standard diversion emanating from Indian exporters having to face higher tariffs in large, growing markets, but increasingly they will have to contend with different and higher product and sustainable development standards, placing them at an even greater disadvantage. In the context of the slowdown in both world growth and India's export buoyancy, any possible exclusion from the mega-regionals would be additionally worrisome.

Ambitious integration would essentially mean India joining, or rather seeking to join, at some future date the TPP. There is considerable uncertainty surrounding this option because the timing and terms of the TPP are still unclear. What is clear, however, is that the substantive liberalization obligations under any future TPP will be greater than those under India's current FTAs and probably ahead of India's planned pace of domestic reform. A significant upgrading of Indian trade capability will be necessary for India to be able to join these mega-regionals should it chose to do so.

1.12 Climate change

India has taken a number of green actions, including imposing significantly higher taxation of petroleum products and re-energizing the renewable energy sector. It can make a positive contribution to the forthcoming Paris negotiations on climate change.

Later this year, Heads of States from around the world will meet in Paris to conclude negotiations on a new agreement under the United Nations Framework Convention on Climate Change (UNFCCC) by December 2015. The expectation is one of action by all countries on climate change from 2020 onwards in accordance with the principle of common but differentiated responsibilities.

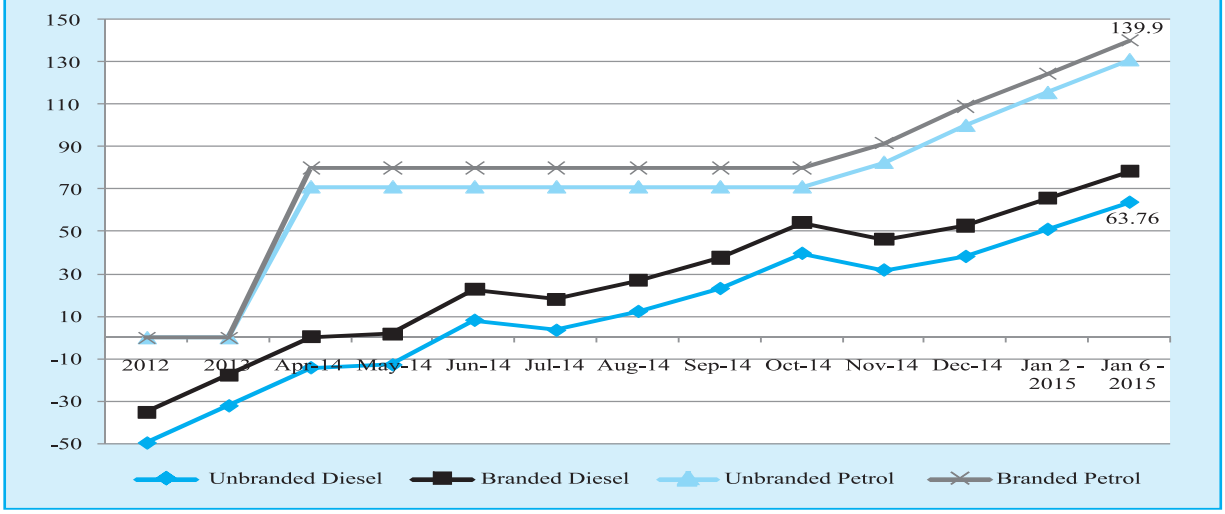
The Intergovernmental Panel on Climate Change (IPCC) in its recent report – the Fifth Assessment Report (AR5), published in 2014 — has observed that, there has been an increasing trend in the anthropogenic emissions of greenhouse gases (GHG) since the advent of the industrial revolution, with about half of the anthropogenic carbon dioxide (CO2) emissions during this period occurring in the last 40 years. The period 1983-2012 is likely to have been the warmest 30 year period of the last 1400 years. CO_2 emissions from fossil fuel combustion and industrial processes contributed a major portion of total GHG emissions during the period 1970 - 2010.

The change in the climate system is likely to have adverse impacts on livelihoods, cropping pattern and food security. Extreme heat events are likely to be longer and more intense in addition to changes in the precipitation patterns. Adverse impacts are likely to be felt more acutely in tropical zone countries such as India, and within India, the poor will be more exposed.

India can make a significant contribution in addressing climate change. Unlike some countries, it has taken substantial actions to eliminate petroleum subsidies and gone beyond to impose substantial taxes on these products.

These actions have taken India from a carbon subsidization regime to one of significant carbon taxation regime—from a negative price to an implicit positive price on carbon emissions. And the shift has been large. For example, the effect of the recent actions since October 2014 has been a de facto carbon tax equivalent to US$ 60 per ton of CO_2 in the case of (unbranded) petrol and nearly US$ 42 per ton in the case of (unbranded) diesel. In absolute terms, the implicit carbon tax (US$ 140 for petrol and US$ 64 for diesel) is substantially above what is now considered a reasonable initial tax on CO_2 emissions of US$ 25 per ton (Figure 1.25). India now ranks quite

Figure 1.25: Implicit Carbon Tax from Increasing Excise Duty on Petrol and Diesel, 2012-January, 2015. (US$/tCO2)



Source: **World Bank estimates.**

high in terms of taxation of petroleum products. The recent actions alone have significantly burnished India's green and climate change credentials.

In addition India has increased the coal cess from Rs. 50 per ton to Rs.100 per ton, which is equivalent to a carbon tax of about US$ 1 per ton. The health cost of coal for power generation in India is estimated to range from US$ 3.41 per ton to US$ 51.11 per ton depending on the value of statistical life. The average number is US$ 27.26 per ton. The health costs of emissions from coal fired power plants include costs associated with premature cardiopulmonary deaths and illnesses from the chronic effects of long-term exposure and the acute effects of short-term exposure. Higher taxes on coal to offset these purely domestic externalities would need to be balanced against their implications for power pricing and hence access to energy for the 300 million households still without electricity.

This trade-off suggests that alternative paths to energy access need to be considered, including renewables. The Jawaharlal Nehru National Solar Mission launched in January 2010 seeks to establish India as a global leader in solar energy by creating policy conditions for its diffusion across the country. The Twelfth Plan financial outlay for this scheme is ₹ 8795 crore. The Solar Mission is now being scaled up five-fold from 20,000 megawatts to 100,000 megawatts. This in effect requires an additional investment of 100 billion US dollars. The aim of this initiative is primarily to provide energy access to nearly 300 million households. The collateral benefit would be lower annual emissions of CO_2 by about 165 million tonnes.

Reconciling India's climate change goals and energy imperatives will require a major technological breakthrough to make the burning of coal cleaner and greener. If India is to focus on becoming green, correspondingly the world must devote more resources into coal technology research. That means greater international public investment in R&D for improving coal technologies. And if the private sector is to be incentivized to undertake this research, high and rising carbon pricing by advanced countries must become an immediate priority. (An elaboration of the contours of a new type of global deal and the required contribution from advanced and emerging economies can be found in Aaditya Mattoo and Arvind Subramanian's *Greenprint: A New Approach to Cooperation on Climate Change).*

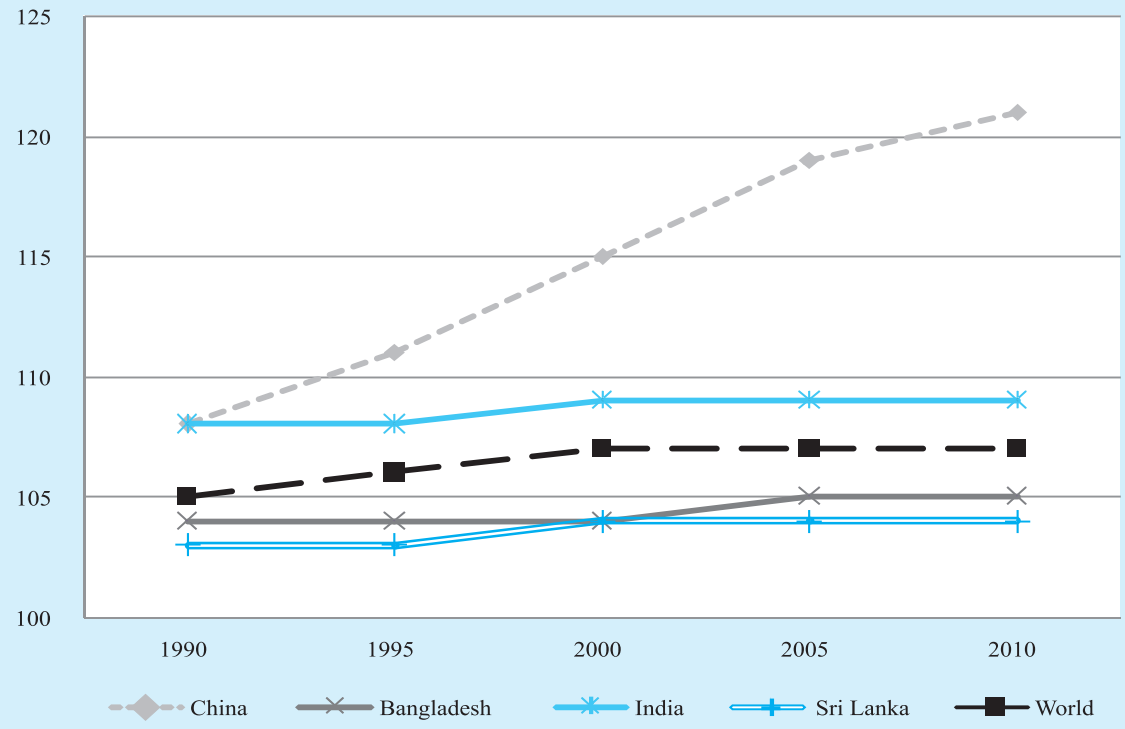
1.13 Empowering Women: Unleashing *Naari Shakti*

Improving the status and treatment of women is a major development challenge. In the short run, family planning targets and the provision of incentives are leading to an undesirable focus on female sterilization.

On January 22nd, 2015, the Prime Minister launched the *Beti Bachao, Beti Padhao* campaign from Panipat in Haryana. The campaign is aimed at increasing the very low value that Indian society puts on a girl child. But India is somewhat of a paradox on gender issues. On the one hand, India has had prominent and visible women leaders such as a female President, a female Prime Minister, several female heads of large political parties at the national and state levels, several Cabinet rank ministers, and several captains of industry (particularly in the banking sector).

And yet, according to the UNDP's latest Human Development Report (2014), India ranks 135 out of 187 countries on the Human Development Index (HDI) and 127 out of 152 countries on the Gender Inequality Index (GII). The GII is a composite measure reflecting inequality in achievement between women and men in three dimensions: reproductive health, empowerment and the labor market. This puts India in the bottom 25 percent of all countries on the HDI and even lower—in the bottom 20 percent on the GII. Furthermore, the child sex ratio—the number of girls to boys at birth—is relatively low in the world, and moreover declined from 927 girls per 1000 boys in 2001 to 918 girls for every 1000 boys in 2011 (Figure 1.26). China is one of the few countries with a more adverse child sex ratio.

Figure 1.26: Boys per 100 Girls,1990 to 2010



Source: **Statistical Yearbook for Asia and the Pacific 2011, UNESCAP.**

But the November 2014 tragedy in Bilaspur, Chhattisgarh in which 13 young women with very young children lost their lives, and forty-five more were taken critically ill, highlights a specific and serious problem that needs urgent attention: female sterilization. The third round of the National Family Health Survey (NFHS-3, 2005-06) reports that even in developed states like Tamil Nadu and Maharashtra female sterilisation accounts for 90 per cent and 76 percent of all contraceptive use, respectively; the median age at sterilisation for women was reported at 24.9 years in both Tamil Nadu and Maharashtra.

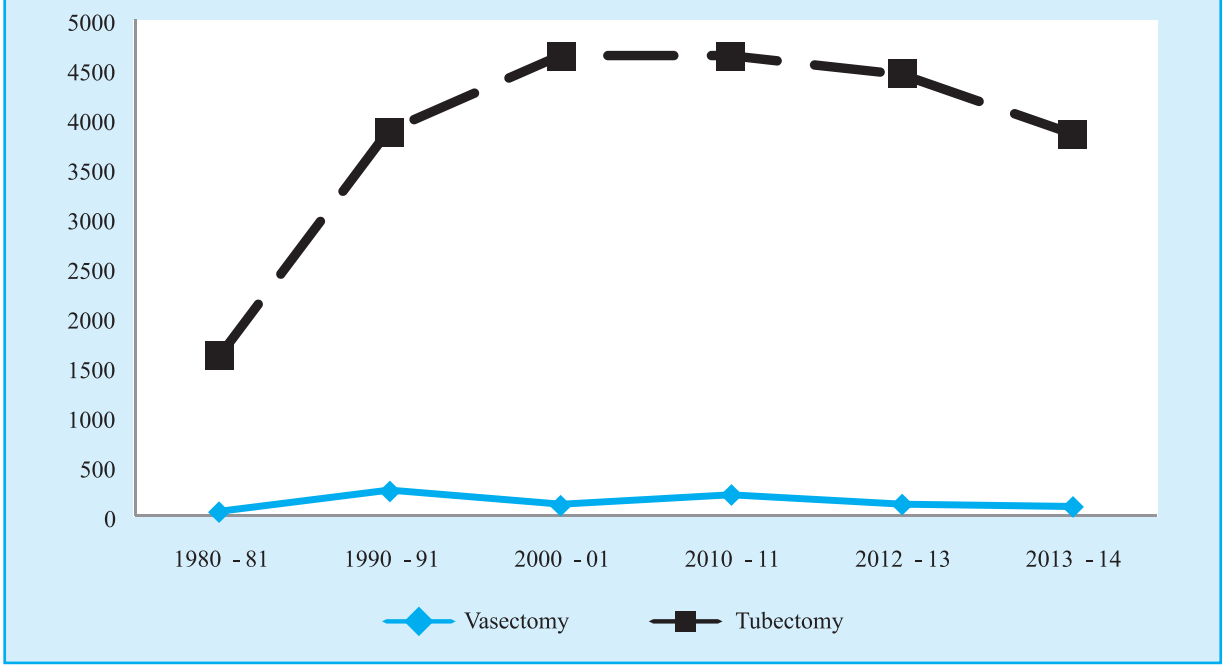
There appears to be renewed focus on controlling the rise in population, directed in particular at women, and through means that blur the lines between persuasion and coercion. Persuasion takes the form of incentives offered not just to poor couples for sterilisation but rewards to local bodies for their performance, euphemistically described as "promotional and motivational" measures, resulting in the organization of mass camps for female sterilization. India's population policy seems focused on extending family planning measures, mainly contraceptives for women, leaving them with little reproductive choice or autonomy.

Of the total sterilisation operations performed in 2012-13, tubectomy/laproscopic sterilisations account for 97.4 percent, while male vasectomy operations, considered less complicated risky, account for only 2.5 percent (Figure 1.27). Government expenditures are also skewed toward female sterilization. Out of the budget of Rs 397 crores for family planning for 2013-14, 85 percent (₹ 338 crore) is spent on female sterilization. By contrast 1.5 percent of the total budget is spent on spacing methods and 13 percent on infrastructure and communications.

The negative fallouts of pursuing a population policy that largely focuses on birth control also contributes to declining child sex ratios: if every family is to have fewer children, there is a greater anxiety that at least one of them should be male.

In this instance, there may be a case for the government to undo as much as to do for example,

Figure 1.27: Number of Vasectomies and Tubectomies, 1980-81 to 2012-13. (Number in '000)



Source: **Ministry of Health & Family Welfare, Government of India.**

by not setting targets (ELAs or expected levels of achievement), withdrawing incentives for female sterilization and for mass camps. In addition, the government could:

(i) *Review the family planning program in India and reorient it such that it is aligned with reproductive health rights of women, and needs of India's population.*

(ii) *Increase budgets for quality services, static family planning clinics and quality monitoring and supervision.*

(iii) *Address youth needs, induct more counsellors for sexual health, more youth-friendly services, and adequate supply of spacing methods.*

1.14 Cooperative Federalism and the Recommendations of the Fourteenth Finance Commission (FFC)

Far-reaching changes for sharing of revenues between the Center and the States, on the one hand, and between the States, on the other, have been recommended by the FFC. Successful implementation will advance the cause of cooperative federalism that the new government has enthusiastically embraced.

The Fourteenth Finance Commission (FFC) has recently submitted its recommendations for devolution of taxes and other transfers from the center to the states, and between the states, for the period 2015-16 to 2020-21. They are likely to have major implications for Center-State relations, for budgeting by, and the fiscal situation of, the Center and the States. Some of the recommendations are as follows.

The FFC has radically enhanced the share of the states in the central divisible pool of taxes from the current 32 percent to 42 per cent which is the biggest ever increase in vertical tax devolution. The last two Finance Commissions viz. Twelfth (2005-10) and Thirteenth (2010-15) had recommended a state share of 30.5 per cent (increase of 1 percent) and 32 per cent (increase of 1.5 percent), respectively in the central divisible pool.

The FFC has also proposed a new horizontal formula for the distribution of the divisible pool among the States. There are changes both in the variables included/excluded as well as the weights assigned to them. Relative to the Thirteenth Finance

Commission, the FFC has incorporated two new variables: 2011 population and forest cover; and excluded the variable relating to fiscal discipline (see Chapter 10 for greater details.)

Implementing these recommendations will move the country toward greater fiscal federalism, conferring more fiscal autonomy on the States. For example, based on assumptions about nominal GDP growth and tax buoyancy and the policy measures that are contemplated for 2015-16, it is estimated that the additional revenue for the states could be as much as ₹ 2 lakh crores relative to 2014-15. Of this, a substantial portion represents the difference that is purely due to the change in the States' share in the divisible pool.

Preliminary estimates shown in Table 1.4 suggest that *all States stand to gain* from FFC transfers in absolute terms. However, to assess the distributional effects, the increases should be scaled by population, Net State Domestic Product (NSDP) at current market price, or by States' own tax revenue receipts. These are shown in columns 4-6 of Table 1.4. The biggest gainers when scaled by any of these indicators tend to be the Special Category States (SCS, mostly those in the North-East) and by orders of magnitude. The major gainers in per capita terms turn out to be Arunachal Pradesh, Mizoram and Sikkim for the SCS states and Kerala, Chhattisgarh and Madhya Pradesh for other states (GCS or General Category States).

Table 1.4 : Additional FFC Transfers (in 2015-16 over 2014-15)

State	Category	Benefits from FFC (in crore)	Benefits Per capita (₹)	Benefits as percent of OTR	Benefits as percent of NSDP
1	2	3	4	5	6
Andhra Pradesh (united)	GCS	14620	1728	27.4	2.2
Arunachal Pradesh	SCS	5585	40359	1758.1	51.0
Assam	SCS	7295	2338	95.5	5.8
Bihar	GCS	13279	1276	105.3	4.9
Chhattisgarh	GCS	7227	2829	67.5	5.2
Goa	GCS	1107	7591	44.1	3.0
Gujarat	GCS	4551	753	10.3	0.8
Haryana	GCS	1592	628	7.8	0.5
Himachal Pradesh	SCS	8533	12430	207.7	14.6
Jammu & Kashmir	SCS	13970	11140	294.4	22.4
Jharkhand	GCS	6196	1878	89.1	4.8
Karnataka	GCS	8401	1375	18.1	1.8
Kerala	GCS	9508	2846	37.0	3.1
Madhya Pradesh	GCS	15072	2075	55.9	4.5
Maharashtra	GCS	10682	951	12.2	0.9
Manipur	SCS	2130	8286	578.7	19.5
Meghalaya	SCS	1381	4655	198.0	8.6
Mizoram	SCS	2519	22962	1410.1	33.3
Nagaland	SCS	2694	13616	886.5	18.7
Odisha	GCS	6752	1609	50.2	3.2
Punjab	GCS	3457	1246	18.3	1.4
Rajasthan	GCS	6479	945	25.5	1.6
Sikkim	SCS	1010	16543	343.7	10.7
Tamil Nadu	GCS	5973	828	10.0	0.9
Tripura	SCS	1560	4247	181.8	6.9
Uttar Pradesh	GCS	24608	1232	46.8	3.5
Uttarakhand	SCS	1303	1292	23.2	1.4
West Bengal	GCS	16714	1831	67.0	3.0
Total		204198	1715		

Source **: Ministry of Finance.**

GCS : General Category States. SCS : Special Category States.

Clearly, this increase in taxes to the States is sustainable for the center, only if there is a reduction in the central ("Plan") assistance to the states (CAS). In other words, States will now have greater autonomy both on the revenue and expenditure fronts.

It is also possible to tentatively estimate what the FFC recommendations would do to net spending capacity of the States, where net refers to the difference between the extra FFC transfers and the reduced CAS that will be required by the FFC recommendations.Broadly, the Special Category States will be the biggest gainers. In addition, there are nine States among the GCS which are expected to get more than 25 per cent of their own tax revenue (for details, see Chapter 10).

A collateral benefit of moving from CAS to FFC transfers is that overall progressivity will improve; that is, on average, States with lower per capita NSDP will receive more than those with a higher per capita NSDP. This results from the fact that CAS transfers, which tended to be discretionary, were less progressive than Finance Commission transfers.

To be sure, there will be transitional costs entailed by the reduction in CAS transfers. But the scope for dislocation has been minimized because the extra FFC resources will flow broadly to the states that have the largest CAS-financed schemes.

In sum, the far-reaching recommendations of the FFC, along with the creation of the NITI Aayog, will further the government's vision of cooperative and competitive federalism. The necessary, indeed vital, encompassing of cities and other local bodies within the embrace of cooperative and competitive federalism is the next policy challenge.