IIFL
Institutional Equities

Insights

India chartbook

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Foreword

8 Insights presents a compilation of charts on India. These charts will give you a comprehensive overview of long-term and near-term macro trends on eight key facets of the Indian economy: 1) Economic growth, 2) Demographics, 3) Agriculture, 4) Money and credit, 5) Public finance, 6) External sector, 7) Corporate sector, and 8) Public sector.

It can be seen from these charts that the Indian economy has made significant progress on most parameters, particularly over the past decade. The GDP growth rate increased more than 2ppts, led by: sharp acceleration in savings and investments; improvement in productivity; steady growth in consumption; more than two-fold increase in bank credit as % of nominal GDP; and a steep increase in external trade. Revenues of all listed companies, as tracked by CMIE, increased at 19% Cagr during FY01-11 and average net profit margins increased 3ppts over the previous decade. The consequent 5ppts expansion in ROE was a principal driver for re-rating of Indian equities through the noughties. From a demographic standpoint, rapid improvement in social indicators and better growth rates in some of the most backward states are structural positives.

All seemed well with India until a year ago when there was heady talk about 9-10% growth. However, things seemed to have turned for the worse in recent months. Most certainly, growth has slowed. The key question is whether this is a cyclical blip or a beginning of a longer-term downdraft. High energy prices are no doubt a major irritant for India; the bigger factor responsible for souring of business sentiment and the slowdown in capital formation, though, is the anaemic policy environment and inertia to push through reforms.

We believe that over the next 12 months, current account will improve, inflation would turn relatively benign, and the central bank would cut rates to boost growth. Regardless, a big reforms push and more favourable policy changes would be crucial to determine longer-term trends in growth, savings, and capital formation.

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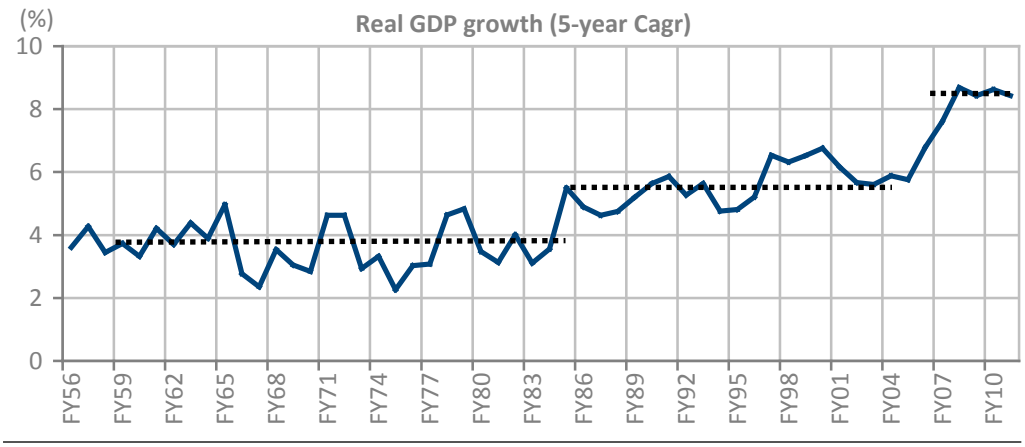
Economic growth

Gloom about India's near-term and even medium-term growth prospects is palpable. Growth estimates have been pruned from 9% a few quarters ago to 6-7%. The headwinds are unmistakably real: the investment cycle, which drove more than 60% of incremental growth over FY03-08, has decelerated and shows no signs of pick-up. Savings show a sharper decline, led by high central government deficit. Low inflation, the hallmark of the pick-up in growth in the last decade, has given way to persistently high inflation. However, one should not lose sight of the context. The 6-7% growth in India is being realised in an environment of near-zero growth in most of the developed world. Further, even on downgraded estimates, growth would be much higher than the average growth rate a decade ago.

On a positive note, India's growth is rebalancing with former laggard states such as Bihar, Chhattisgarh, and Orissa growing at 9%, much above the overall growth rate. Growth accelerated 3ppt during FY05-10 even in states such as Uttar Pradesh and Madhya Pradesh. However, one indicator that has not improved is capital productivity. India's capital productivity ratio (ICOR) has been unchanged at around 4x for the past couple of decades although it compares well with other emerging markets. India's ICOR is similar to China and better than other EM peers. Labour productivity, on the other hand, has improved significantly in the past few years.

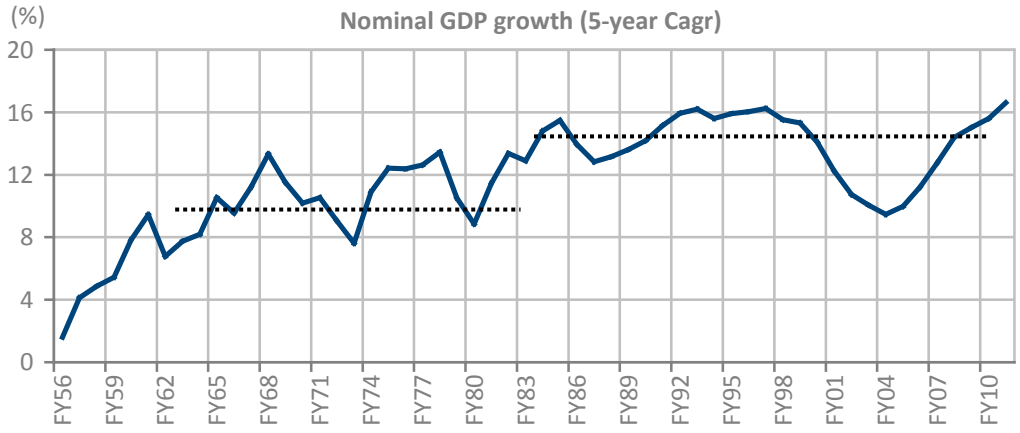
GDP growth

Chart 1.1: India's growth can be seen in three distinct phases



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

Chart 1.2: Growth accelerated in the 1980s and again in the 2000s



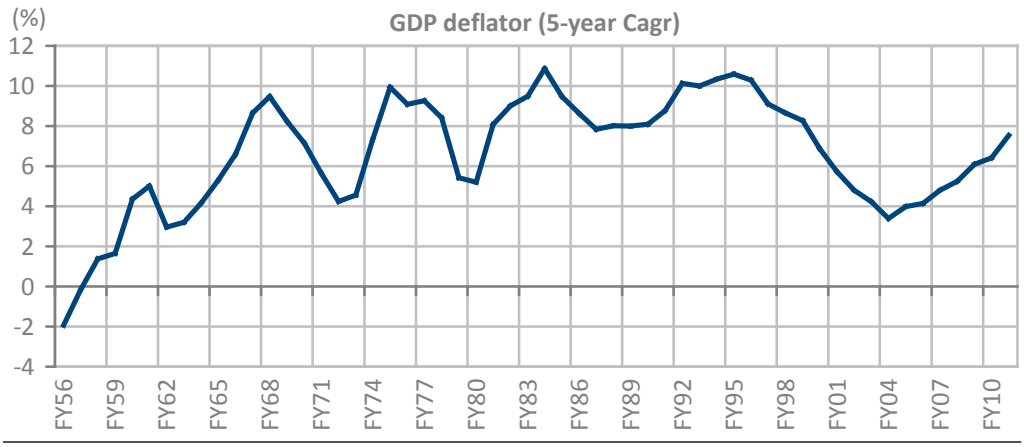
Source: CMIE, NSSO, World Bank, RBI, IIFL Research

- Real GDP growth in India can be divided in three distinct phases. In the first phase between 1950s until the early 1980s, the trend growth was 3-4%. In the second phase, from early 1980s until early 2000s, the trend growth accelerated to 5-6%. In the third phase since mid-2000s, the trend growth was at around 8%.
- A key feature of the sharp acceleration in the real growth rate during the 2000s is that it has not been accompanied by significantly faster nominal growth rate. GDP has continued to grow at its trend rate of 14-15% since the 1980s .

Note: In this section, data from FY05 is based on 2004-05 base year national accounts data; prior data is based on 1999-2000 base year data.

GDP growth

Chart 1.3: India's growth story is its 'disinflation' story



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

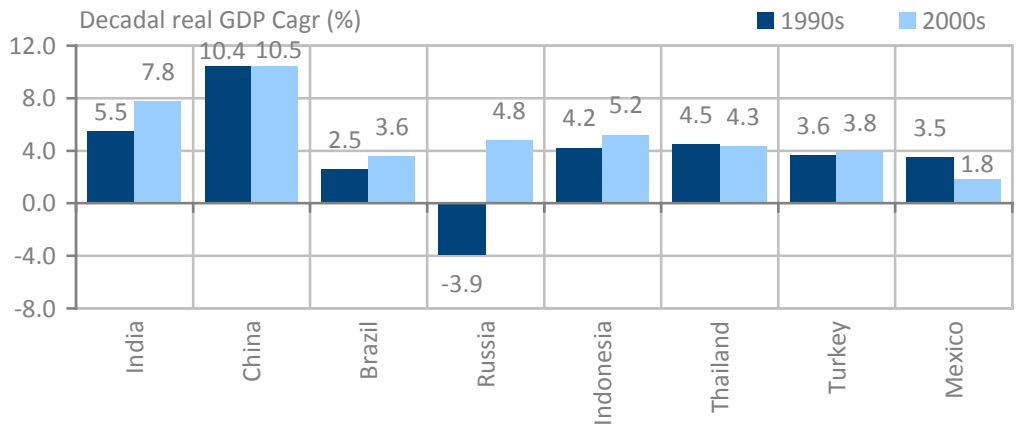
Chart 1.4: Volatility in GDP growth has declined sharply

Source: CMIE, NSSO, World Bank, RBI, IIFL Research. Note: Volatility calculated as standard deviation of GDP growth on a rolling 10-year basis.

- The first feature of growth acceleration in the 2000s has been a sharp decline in inflation from 8-10% over the 1970s-1990s, to 4-6% during the last decade. Thus, India's growth story, in a way, is a disinflation story. However, worryingly, this trend of low inflation appears to be reversing with sustained high inflation over the past 2-3 years.
- Another noticeable feature of growth acceleration in the last decade has been the significant decline in volatility of growth. The standard deviation of growth has declined sharply from 3-4ppt in 1950s-1980s to just above 1ppt currently.

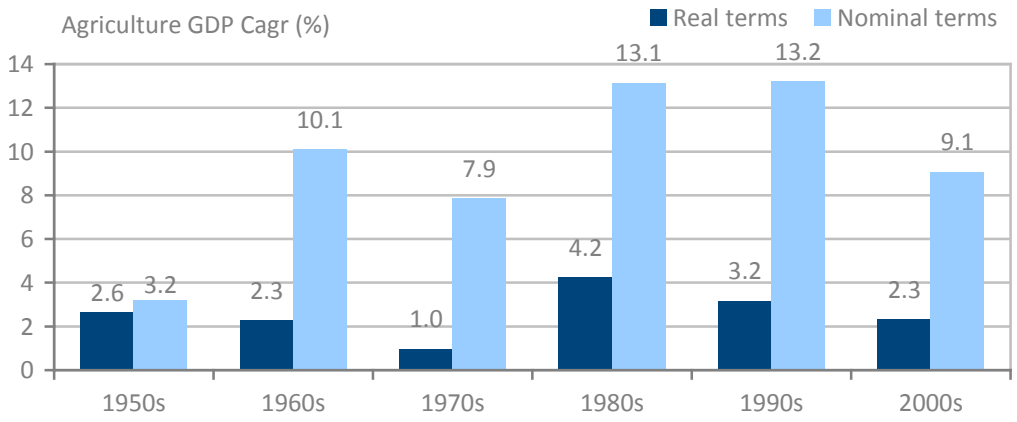
Regional and sectoral comparison

Chart 1.5: India is the second-fastest growing major economy



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

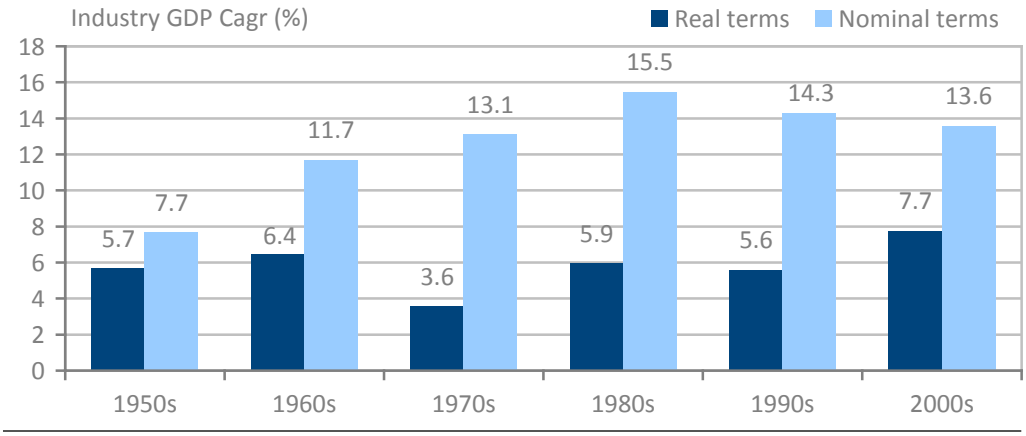
Chart 1.6: Agriculture GDP growth has decelerated



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

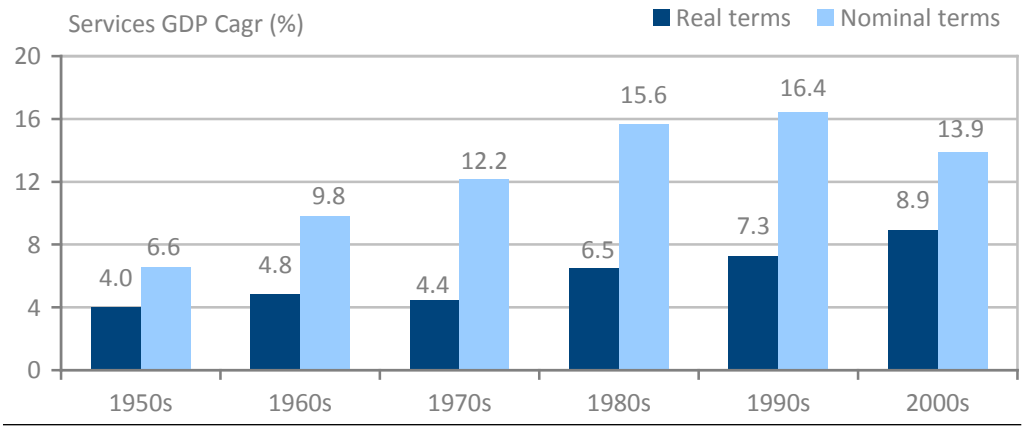
- Unlike in many other emerging market countries, real growth accelerated in India (250bps) during the 2000s. At ~8% Cagr, India's growth rate was 3-4ppt higher than most emerging market countries barring China. However the 'growth gap' to China has narrowed sharply from 5ppt in the 1990s to just 2ppt in the last decade.
- At a sectoral level, although the overall growth rate picked up, agriculture GDP growth decelerated for the second consecutive decade despite minimum support prices and investment in agriculture increasing sharply.

Chart 1.7: Industrial growth accelerated sharply in the last decade



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

Chart 1.8: Services growth has accelerated for three decades

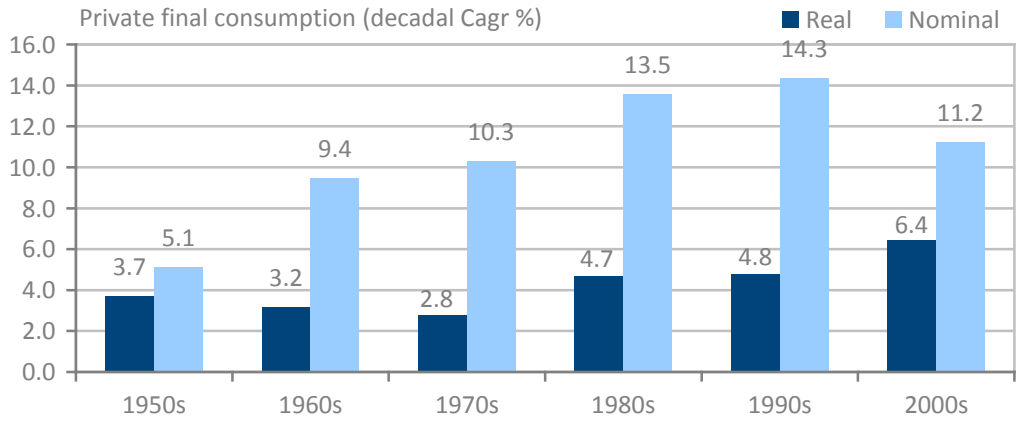


Source: CMIE, NSSO, World Bank, RBI, IIFL Research

- With growth in agriculture declining, the acceleration in growth in the 2000s has been driven by the industrial and services sectors. During the 2000s, the industrial and services sectors saw the fastest decadal growth since independence.
- Acceleration in the industrial sector was driven largely by a strong capex cycle, which resulted in investment rate in the economy rising more than 10ppt during FY03-08. Since then, the investment cycle has faltered and this is reflected in the sluggish industrial production growth in recent months. We believe this trend is unlikely to reverse in the near term.

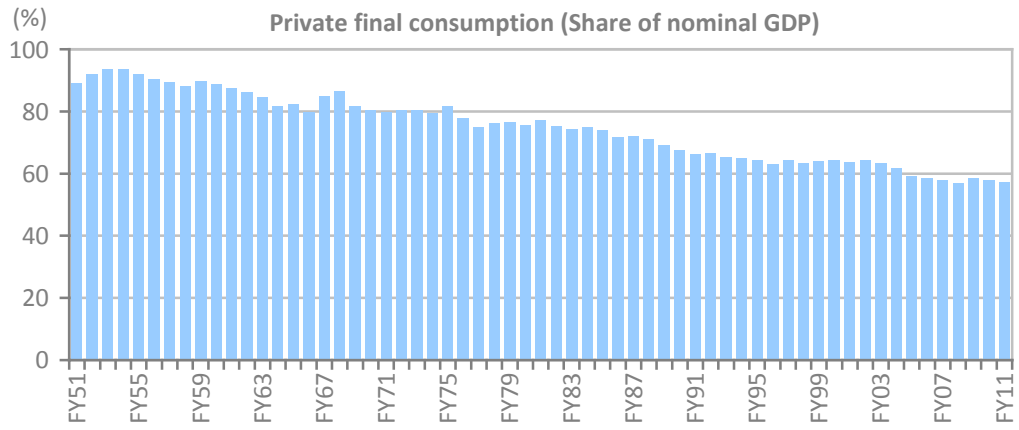
Private consumption

Chart 1.9: Private consumption has accelerated further in the 2000s



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

Chart 1.10: However, its share in GDP has declined steadily

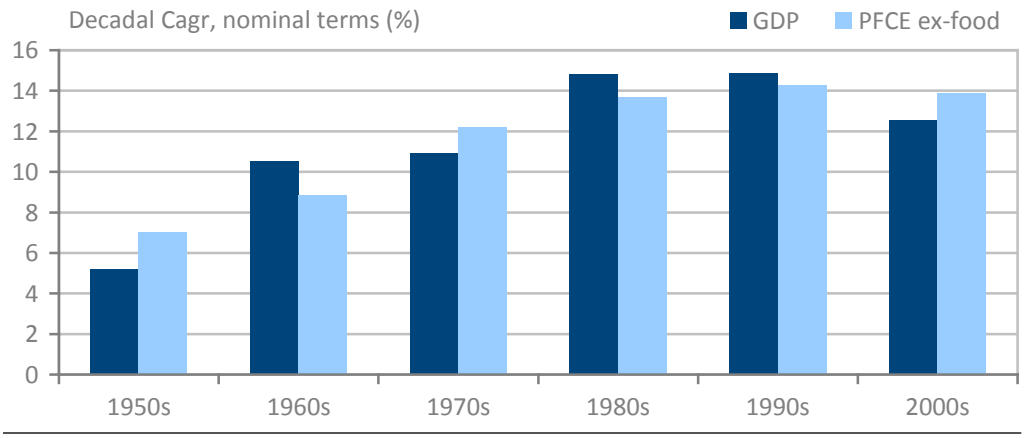


Source: CMIE, NSSO, World Bank, RBI, IIFL Research

- Private consumption growth accelerated to 6.4% during the 2000s, ~160bps higher than the growth in the 1980s and 1990s.
- However, despite this acceleration and the much-touted Indian consumption story, private consumption continues to grow at a slower rate than overall GDP, and its share in GDP has steadily declined to 58% in FY11 from 90% in FY51.

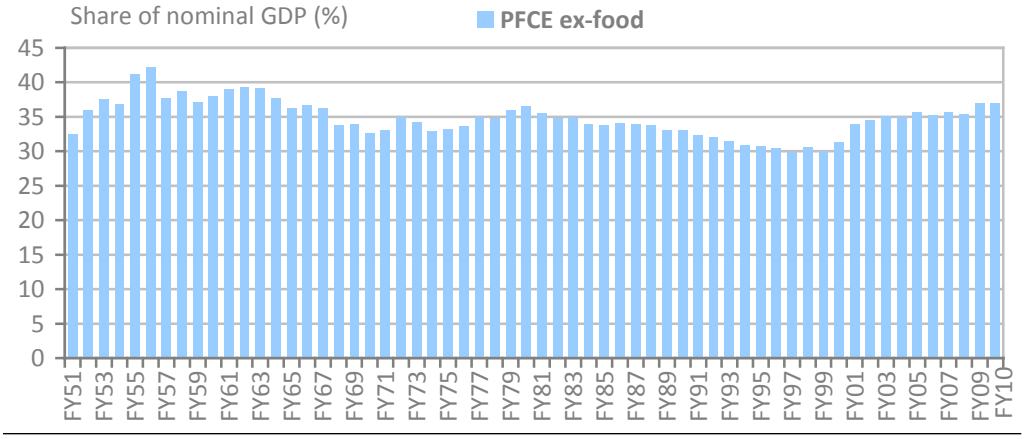
Private consumption

Chart 1.11: Pvt consumption, ex-food, is growing faster than GDP



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

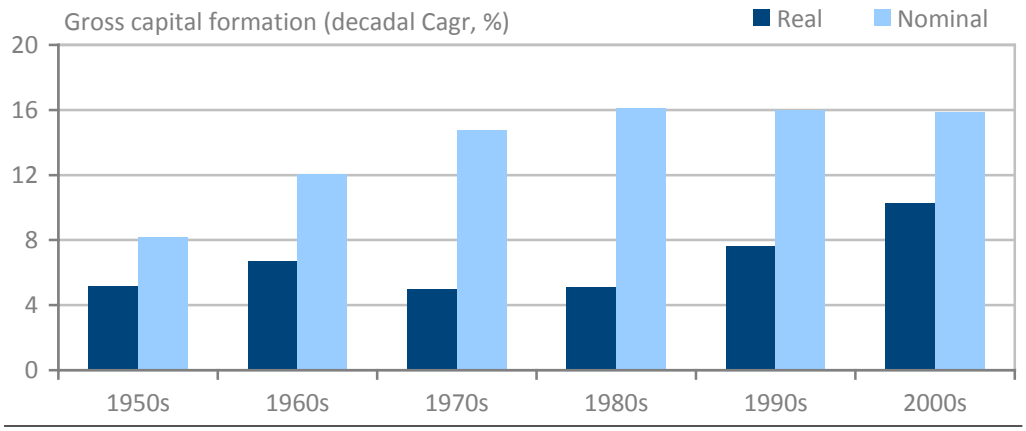
Chart 1.12: Share of private consumption in GDP, ex-food, has risen



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

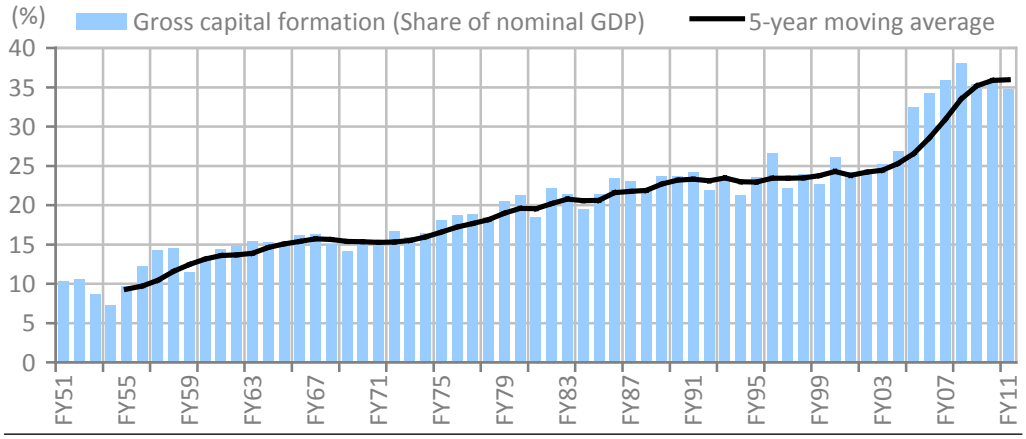
- We believe India's consumption story is best reflected in the fact that for the first time in three decades, in the 2000s, ex-food private consumption growth was actually faster than overall GDP.
- This is not surprising because marginal propensity to consume food tends to decline as income levels increase. Consequently, share of non-food private consumption in overall GDP increased to ~37%, the highest in more than four decades.

Chart 1.13: Gross capital formation took off sharply in the 2000s



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

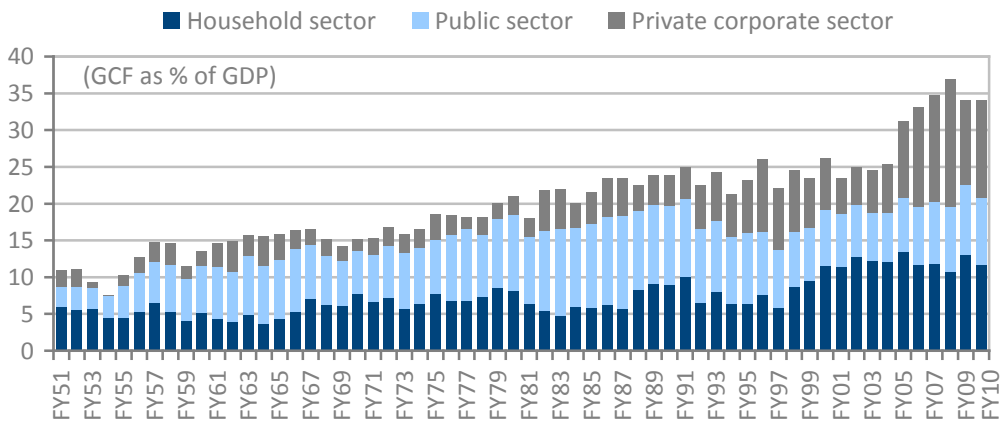
Chart 1.14: As a result, investment rate increased sharply in 2000s



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

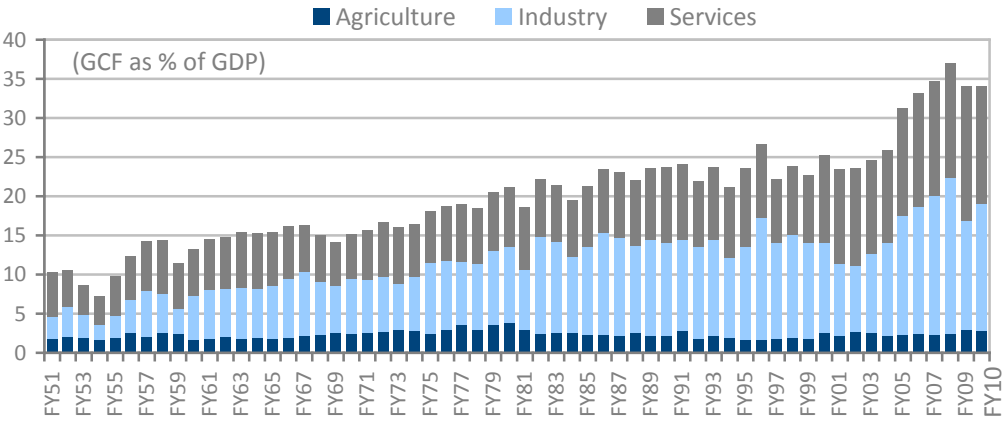
- The investment rate in the economy had been gradually trending up until the 1990s. However, after FY03, the investment cycle took off vertically with the investment rate rising more than 10ppt in just five years.
- The pick-up in investment reflected a confluence of favourable factors: firstly, the economy was exiting a period of severe under-investment between FY98-03; secondly, global growth momentum and external capital flows were robust; thirdly, domestically, cost of capital was low; and finally, domestic demand recovered sharply and this had a favourable effect on corporate profitability.

Chart 1.15: Pvt corporate sector drove the uptick in investments



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

Chart 1.16: Industry, services saw sharp increase in investments

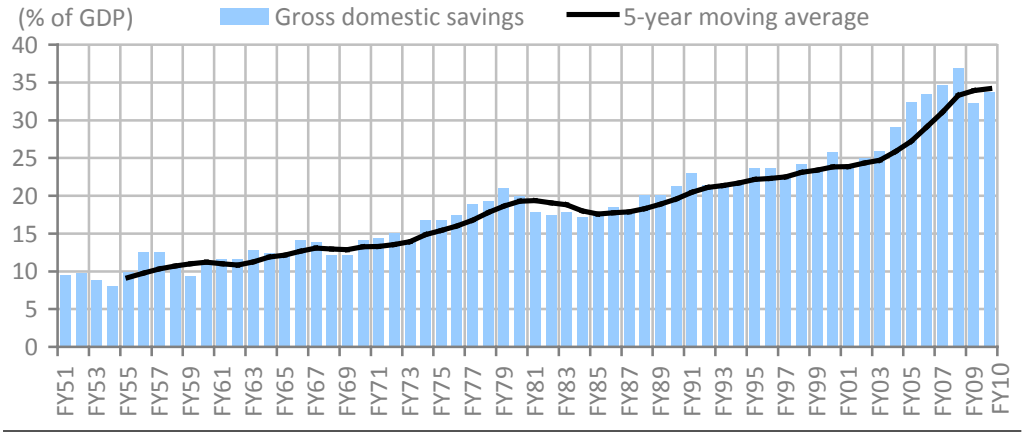


Source: CMIE, NSSO, World Bank, RBI, IIFL Research

- Uptick in investments in the last decade was driven largely by the private corporate sector, which increased from 5% in FY2000 to 17% in FY08 before declining to 13% in the aftermath of the global financial crisis. Public sector GCF increased modestly in the 2000s but it remains below the level seen in the 1980s.
- Infrastructure investments are a modest part of overall GCF in the economy. The bigger drag on the capex cycle currently is from a slowdown in corporate capex due to slower growth, strained balance sheets and profitability, rising interest rates, and an uncertain economic and policy environment.

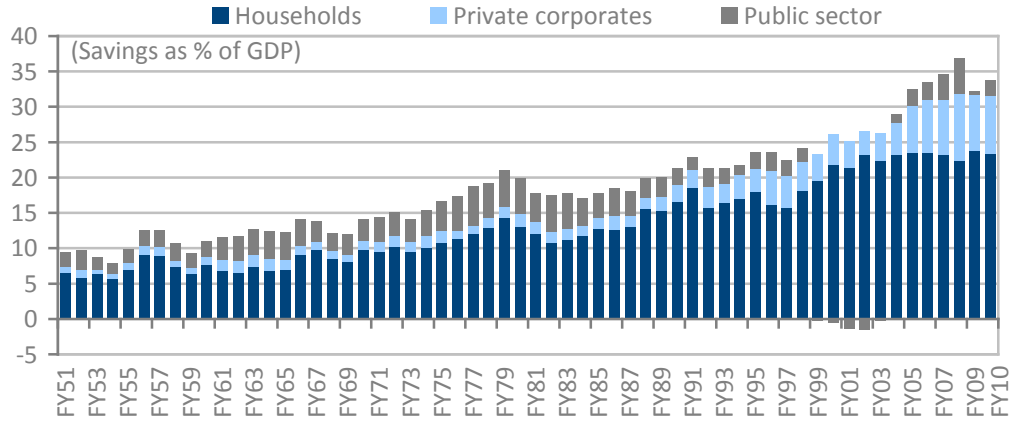
Domestic savings

Chart 1.17: Uptick in investments was matched by rise in savings



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

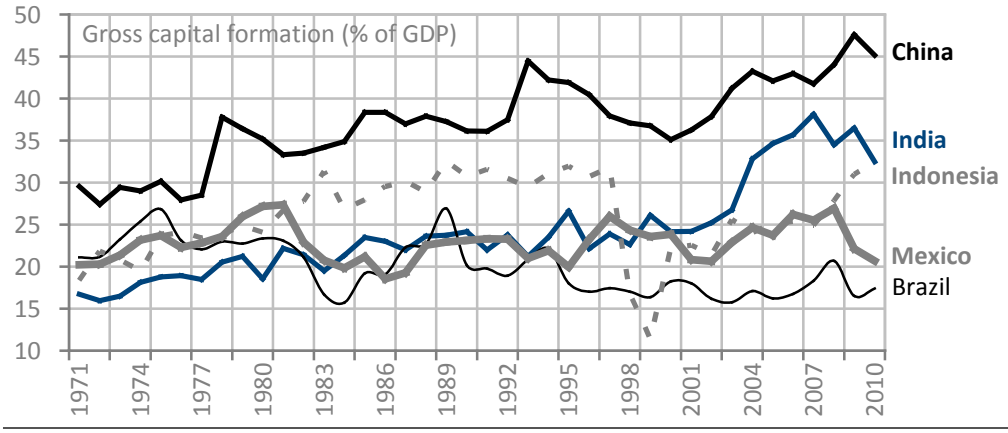
Chart 1.18: Rise in savings came largely from the pvt corporate sector



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

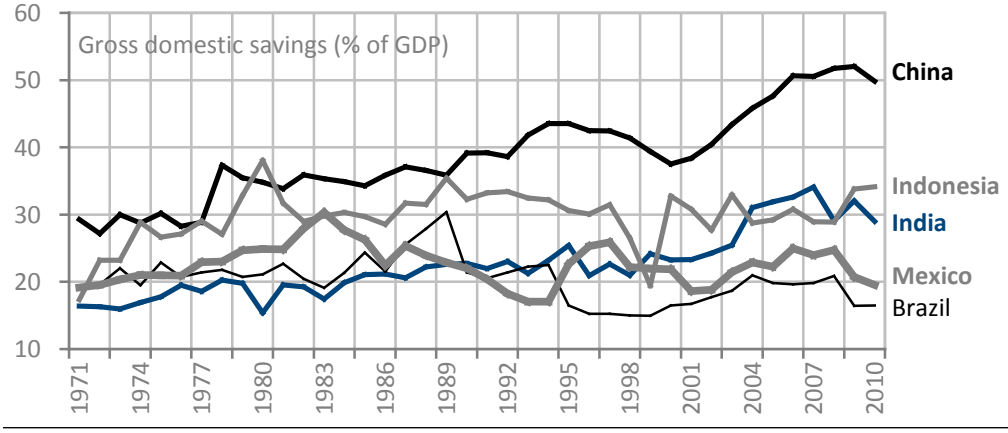
- The uptick in investments in the 2000s was largely matched by rise in domestic savings, which kept the current account deficit under check. Thus, despite more than 10ppt increase in the investment rate, India's current account deficit remained under 1.5% of GDP in FY08.
- Aggregate savings in India have declined sharply from the peak of FY08 due to the drag from public sector savings. Central government has not rolled back the fiscal stimulus and subsidies are mounting. Further, public sector companies are also sharing the burden of subsidies, which is also a drag on public sector savings.

Chart 1.19: India's investment rate is 2nd-highest among key EMs



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

Chart 1.20: India's savings rate has declined sharply in recent years

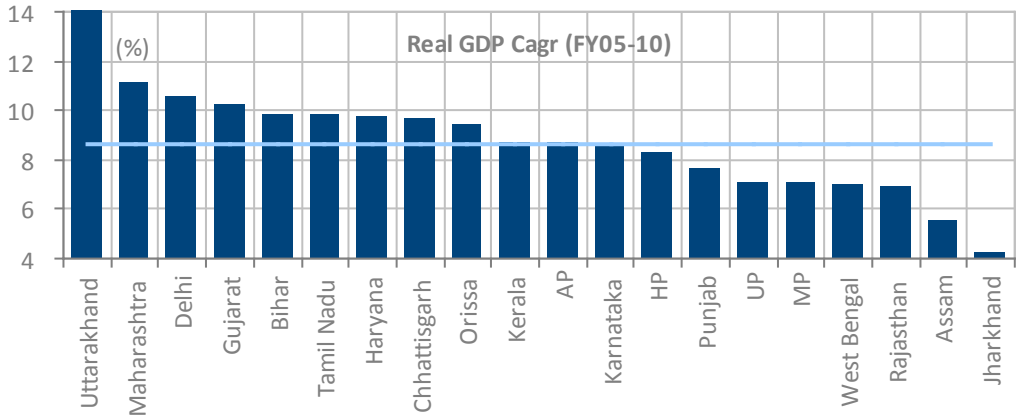


Source: CMIE, NSSO, World Bank, RBI, IIFL Research

- India's investment rate took off from 2003 onwards and is now the highest among EMs, barring China. However, India's investment rate is declining due to a combination of adverse political environment, high inflation and interest rates, declining margins, and recently, deceleration in growth.
- India's savings rate too is relatively high among EMs currently, but has declined sharply in recent years due to worsening central government finances. India's savings rate is unlikely to recover to its FY08 peak in the near future.

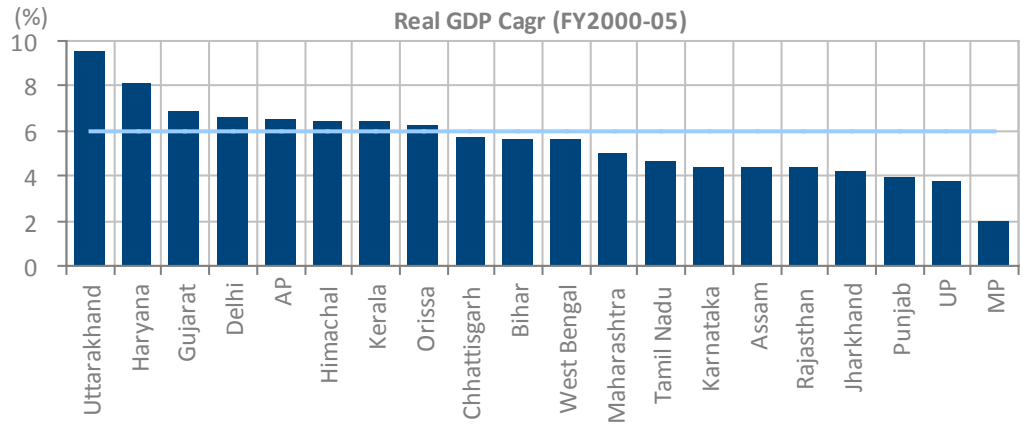
Regional growth dynamics

Chart 1.21: State GDP growth has been broad based during FY05-10



Source: CMIE, NSSO, World Bank, RBI, IIFL Research

Chart 1.22: Growth in 1H of the last decade was relatively narrower

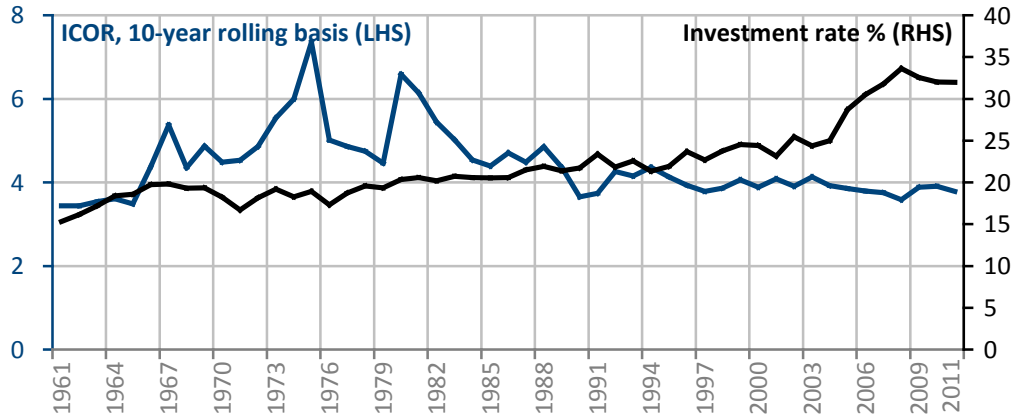


Source: CMIE, NSSO, World Bank, RBI, IIFL Research

- The sharp pick-up in growth in 2H of last decade has been fairly broad based. Former laggard states such as Bihar, Chhattisgarh, and Orissa have seen real GDP Cagr of more than 9% during FY05-10; even states such as Uttar Pradesh and Rajasthan have seen acceleration in growth of ~3ppt relative to the preceding five-year period.
- Quantitatively, 11 states grew faster than all-India GDP during FY05-10 period as against eight states in the previous five-year period.

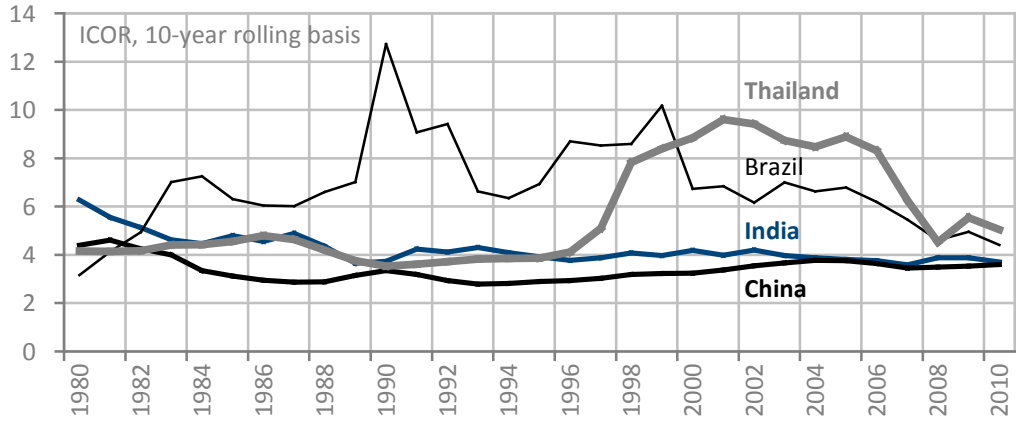
Capital productivity

Chart 1.23: India's ICOR has remained at around 4 for 2-3 decades



Source: FAO, IIFL Research

Chart 1.24: India's ICOR is similar to that of China

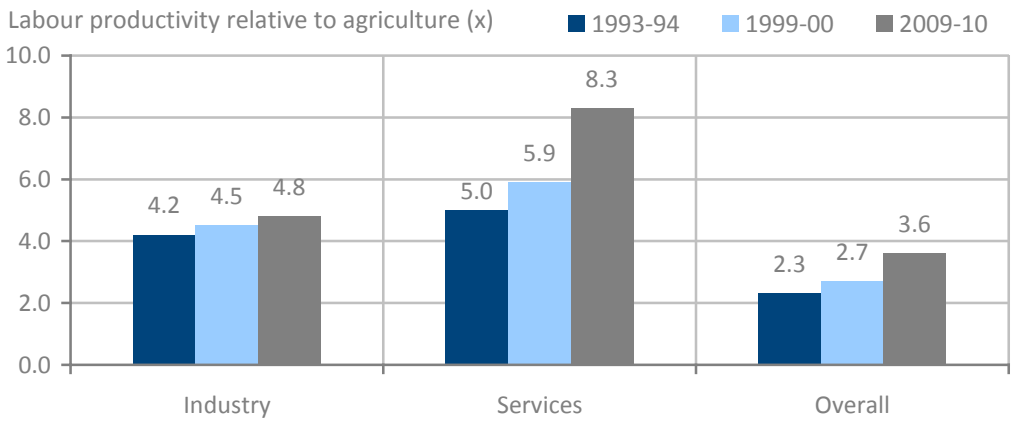


Source: CMIE, NSSO, World Bank, RBI, IIFL Research

- India's Incremental Capital Output Ratio (ICOR) has remained steady at around 4x since the late 1980s, implying that acceleration in growth in the last decade was entirely due to higher capital investment in the economy and not due to higher capital productivity.
- The almost similar ICOR for India and China implies that the primary difference in GDP growth rates of the countries is largely explained by the difference in investment rates: just more than 30% for India and more than 40% for China. But India is less capital-intensive vis-à-vis China due to higher share of services.

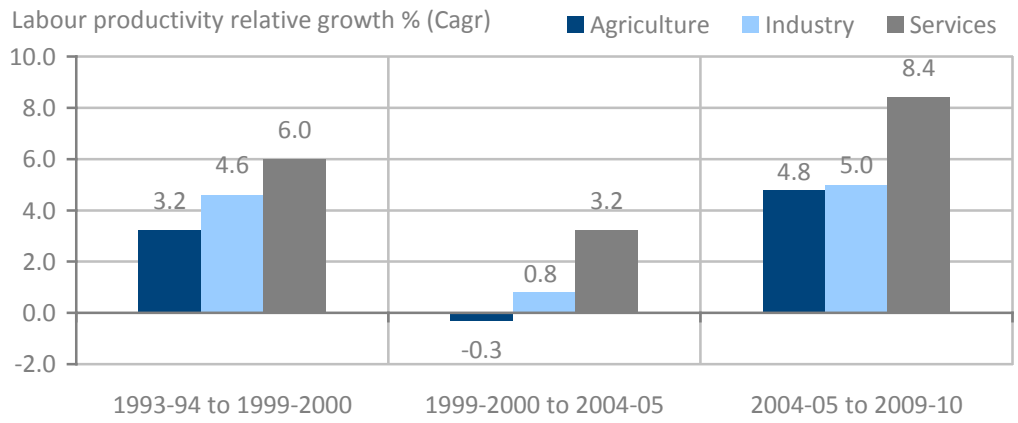
Labour productivity

Chart 1.25: Agri productivity is significantly below other sectors



Source: Census India, IIFL Research. Note: Labour productivity calculated as change in per capita sectoral output.

Chart 1.26: Labour productivity growth was strong during FY05-10



Source: CMIE, NSSO, World Bank, RBI, IIFL Research. Note: Labour productivity calculated as change in per capita sectoral output.

- Productivity in industry and services is many times larger than that of agriculture and the gradual shift of people away from agriculture will aid productivity growth in the medium-to-long-term.
- Overall labour productivity growth was strong in the recent five-year period due to stagnant employment as the labour participation rate fell, because younger people are investing in education. This again bodes well for labour productivity in the medium-to-long-term.

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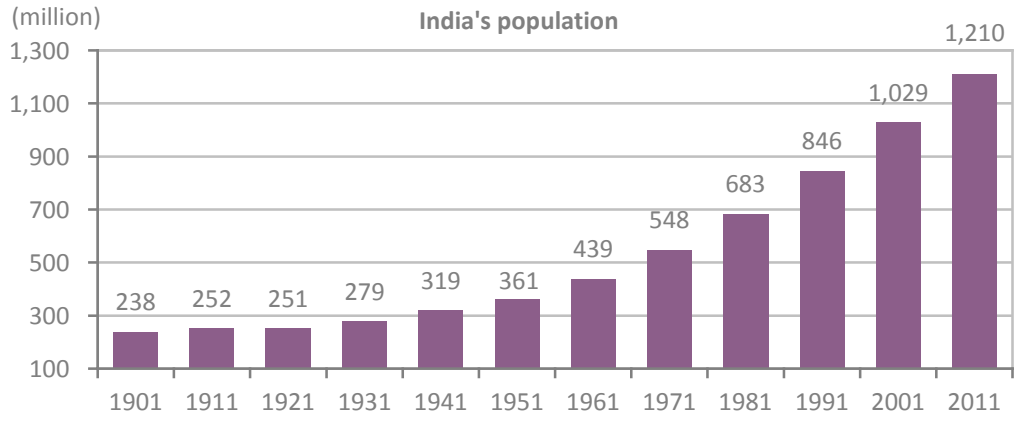
Demographics

Favourable demographics are one of India's key, sustainable, long-term advantages. However, there is much more to the favourable demographics than just a young population. India's population growth is slowing significantly; it has already slowed to a six-decade low in the last decade. When higher growth coincides with slower population growth, it presents a potent combination for real income growth, and thus for domestic consumption and savings. Further, literacy is rising. Today, the literacy rate of the lowest literate state Bihar is at a stage where the all-India rate was a decade ago. In addition, younger people are spending more time in education rather than engaging in less skilled labour and thus skilled labour is gradually replacing unskilled labour.

No doubt India is a young country and it will remain so even after two decades with the proportion of working age population peaking in 2035. However, the peak of addition to working-age population is behind us. Last decade saw the largest absolute addition to working age population, which will decline 15% this decade. The signs of aging are visible. This decade, increase in number of people over 60 years will comprise 1/3rd of the increase in working-age population and in two decades, it will exceed the addition to the working-age population. By 2030, India's older population (over 60 years) will double in absolute terms, rising to 12% of the total population. India's urbanisation rate is low but it is already home to a large urban population. Further India's urban population will increase faster than most EMs, presenting a challenge to the already-strained urban infrastructure.

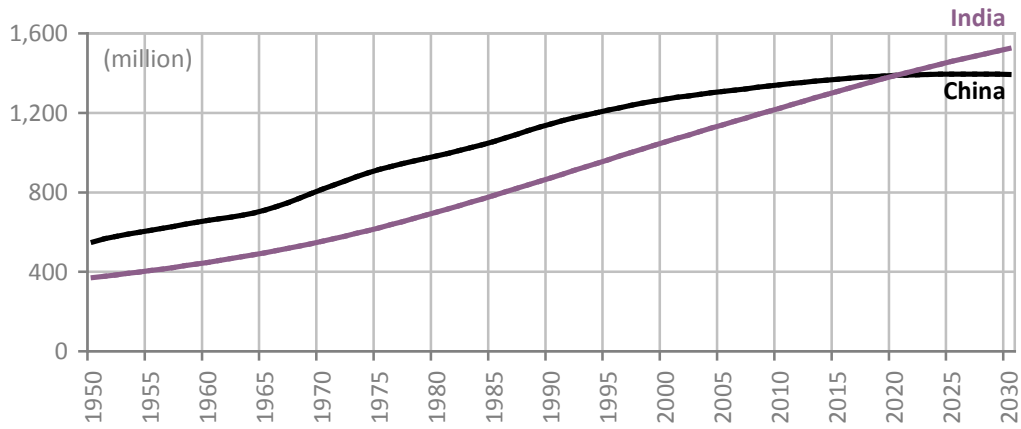
Population growth

Chart 2.1: India's population has risen over 3x since independence



Source: CMIE, Census India, UN Population database, IIFL Research

Chart 2.2: India's population will cross that of China by 2020

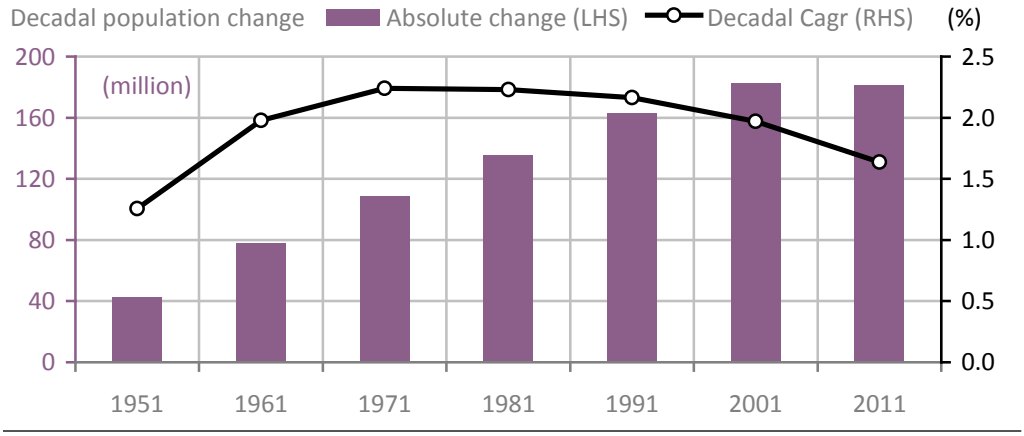


Source: CMIE, Census India, UN Population database, IIFL Research

- India is the second-most populous country in the world, next only to China. With China's population growth rate slowing dramatically, India will surpass China to become the world's most populous nation by the end of this decade.
- China's landmass is 3x that of India, which implies that India's population density would be 3x that of China by the end of this decade. In absolute terms, however, countries like Korea, Taiwan, Bangladesh, the Netherlands, and Israel have higher population density than that of India currently.

Population growth

Chart 2.3: The population growth rate is decelerating sharply…



Source: CMIE, Census India, UN Population database, IIFL Research

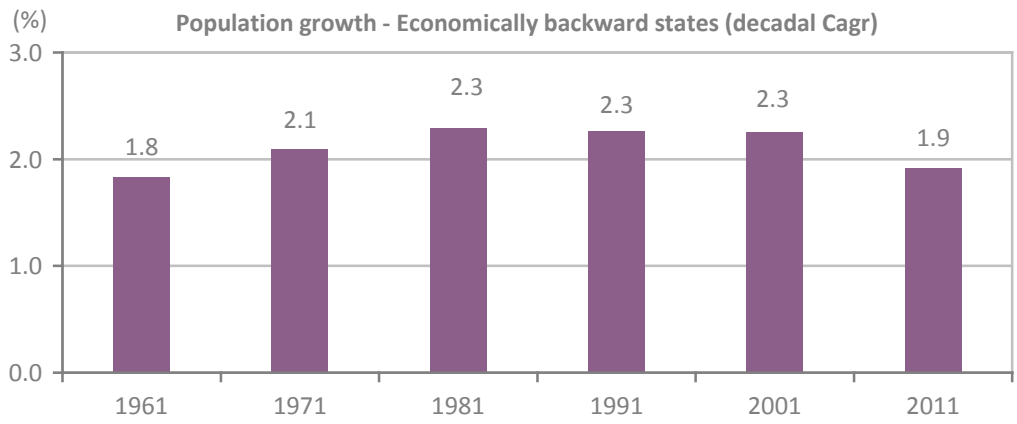
Chart 2.4: …however, it remains above the world average

Source: CMIE, Census India, UN Population database, IIFL Research

- The period 2001-11 was the first block of ten years since independence when India's population increased less than in the previous decade because population growth rate slowed to a six-decade low of 1.6% Cagr vs. 1.9% Cagr in the preceding decade.
- With economic growth (real GDP) accelerating by 2ppt during the past decade, real per capita income grew 230bps faster than the preceding decade or ~6% pa in absolute terms. At this pace, per capita income would double every 12 years in real terms, an impressive achievement.

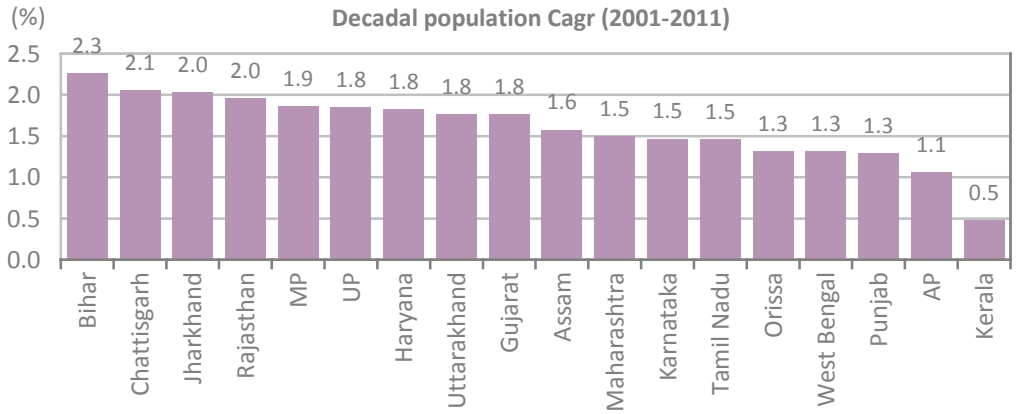
Population growth

Chart 2.5: Population growth is slowing even in backward states



Source: CMIE, Census India, UN Population database, IIFL Research. Note: Economically backward states include Bihar, Jharkhand, MP, Chhattisgarh, Rajasthan, UP, Uttarakhand and Orissa.

Chart 2.6: Wide inter-state gap exists in population growth rates

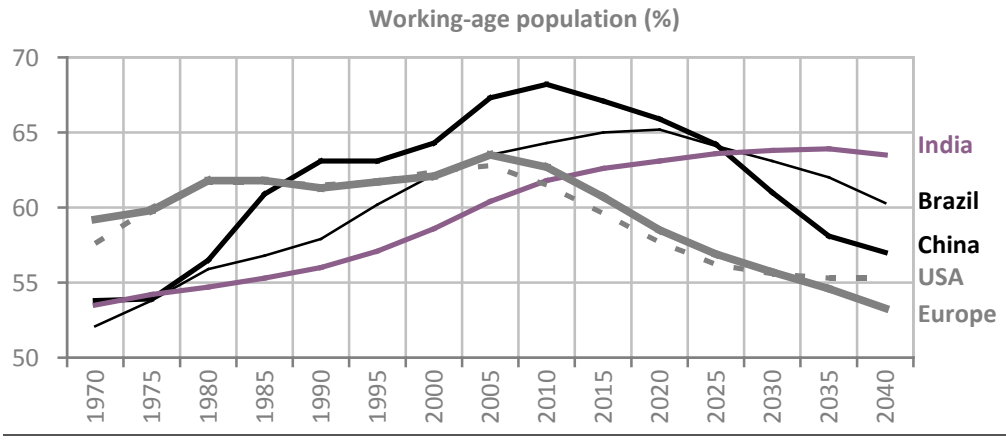


Source: CMIE, Census India, UN Population database, IIFL Research

- After three decades of more than 2% Cagr, population growth in economically backward states such as Bihar, Chhattisgarh, and Uttar Pradesh has decelerated sharply (40bps). This is also the decade in which real GDP growth accelerated 3ppt in these states, implying that real per capita income accelerated ~2ppt over the past decade relative to the earlier decade.
- There is wide divergence in population growth rate across states, with population in a state like Kerala (just 0.5% Cagr) growing in line with most developed nations whereas that of Bihar (2.3% Cagr) growing at rates similar to African countries.

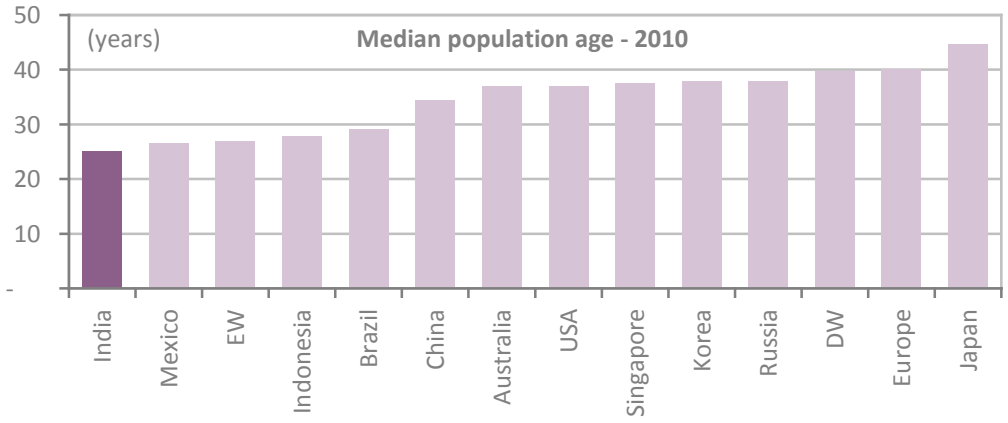
Demographic dividend

Chart 2.7: Share of working-age population will continue to rise



Source: CMIE, Census India, UN Population database, IIFL Research

Chart 2.8: Median age of population is among the lowest globally

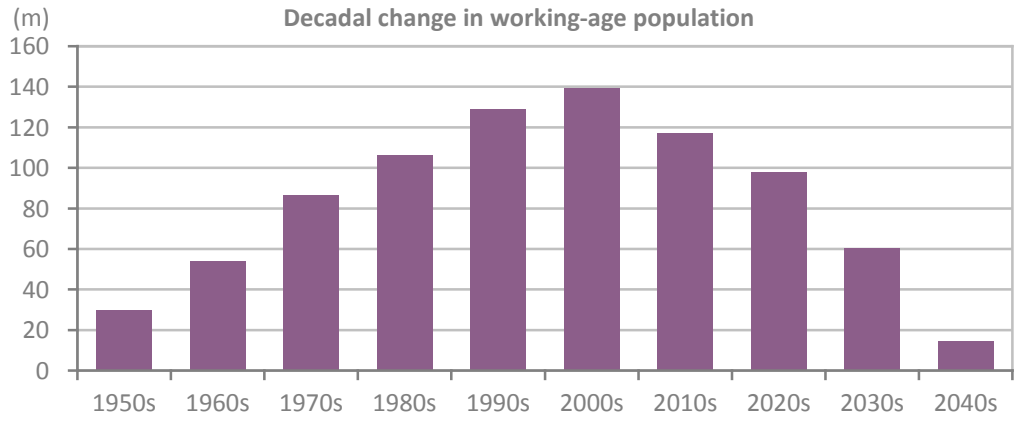


Source: CMIE, Census India, UN Population database, IIFL Research. Note: EW refers to less developed countries while DW refers to developed countries.

- A young population is at the heart of India's so called demographic dividend. Thus, although the share of working-age population in total population has peaked in most developed and many developing countries, for India, it will continue to rise until 2035.
- The rising share of young population will support the uptick in domestic consumption and household savings. Both of these are already large components of the economy and it results in growth being domestically driven. This will be a key driver of India's long-term growth despite the current downturn.

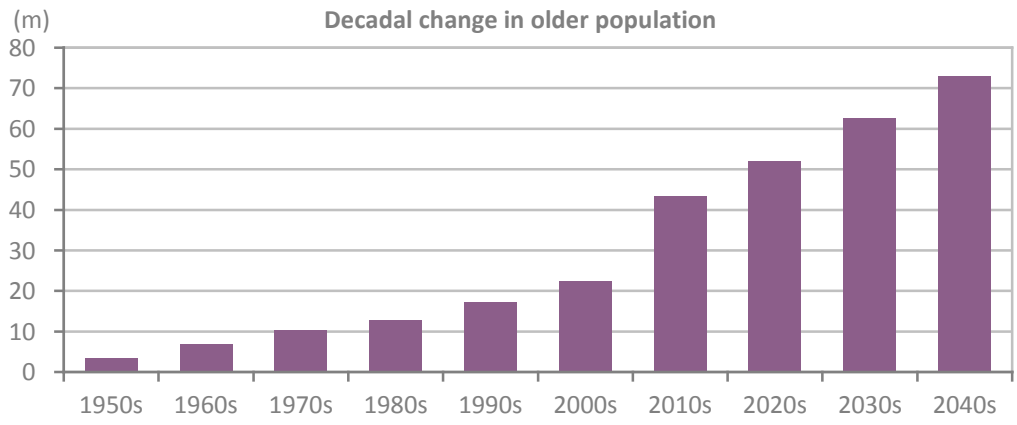
Demographic dividend

Chart 2.9: Demographic dividend has peaked



Source: CMIE, Census India, UN Population database, IIFL Research

Chart 2.10: Older (60+) population will rise sharply from next decade

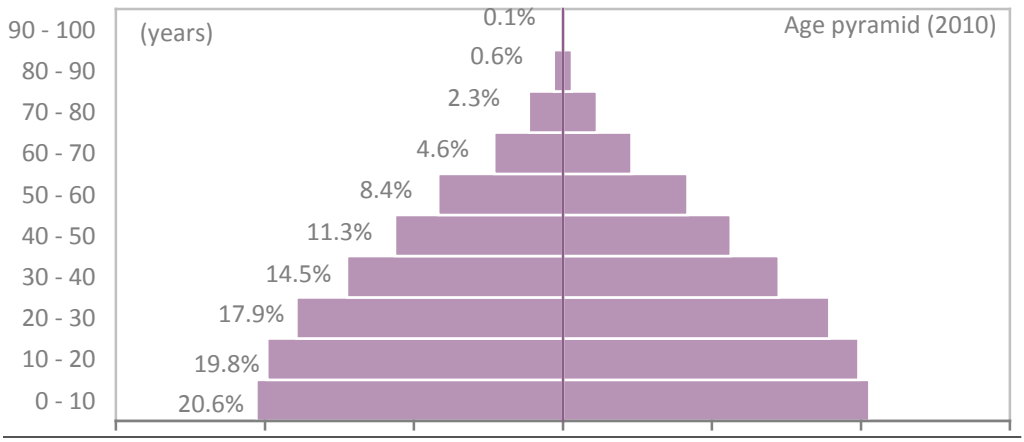


Source: CMIE, Census India, UN Population database, IIFL Research

- India's demographic dividend has peaked; the past decade was the peak year in terms of addition to working-age population. India will add 15% less people to its working-age population this decade.
- Further, it is worth noting that India's older (60+) population will also rise sharply over the next couple of decades, though it would remain low in relative terms. In two decades, India will add more to its older population than to its working-age population. So, while India can enjoy the positive effect of a younger population in the near term, it would need to start preparing and planning for its old!

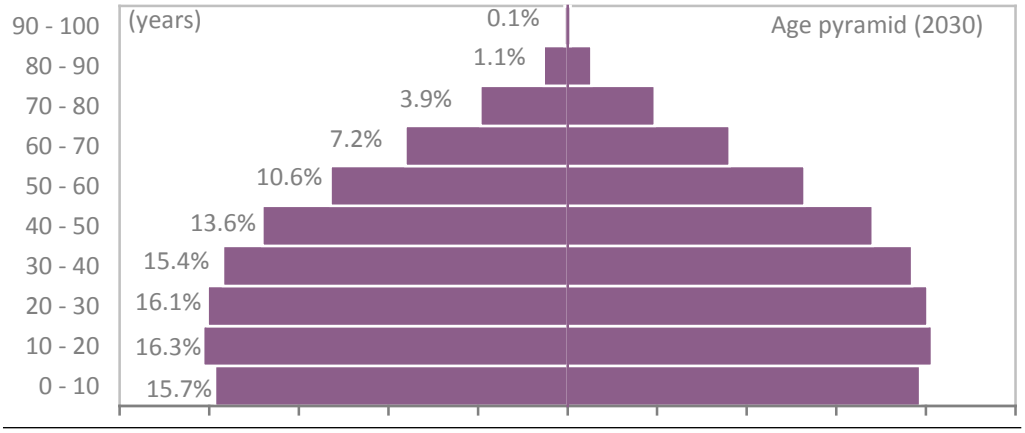
Demographic dividend

Chart 2.11: Largest block of population is in the <10-year category



Source: CMIE, Census India, UN Population database, IIFL Research

Chart 2.12: Age pyramid will bulge slightly by 2030

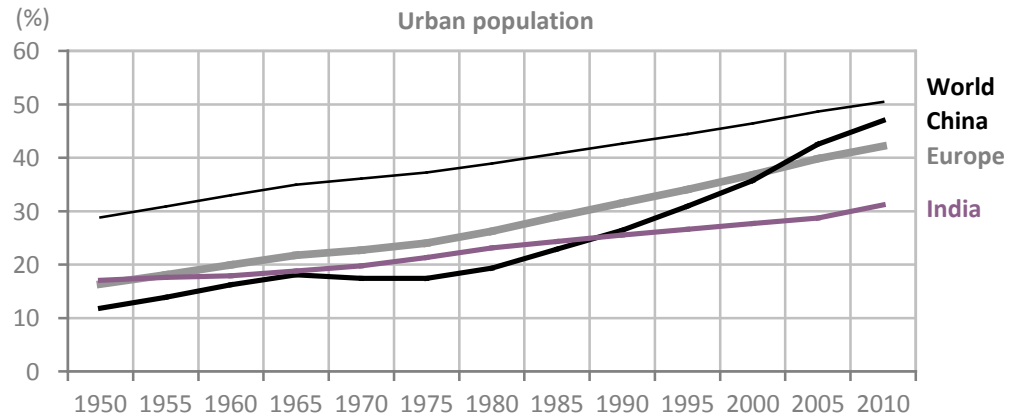


Source: CMIE, Census India, UN Population database, IIFL Research

- India's age pyramid will not change substantially even after two decades, although it will bulge slightly at the centre. Thus, as against one out of five people currently being under the age of ten, two decades later the number would change to one out of six. As against four out of ten people being under the age of 20 now, it would be three out of ten two decades later.
- However, signs of aging would be visible. Thus, as against just 8% of population over 60 now, by 2030, this number will rise to 12%. In absolute terms, this implies a doubling of the number of people over 60 years.

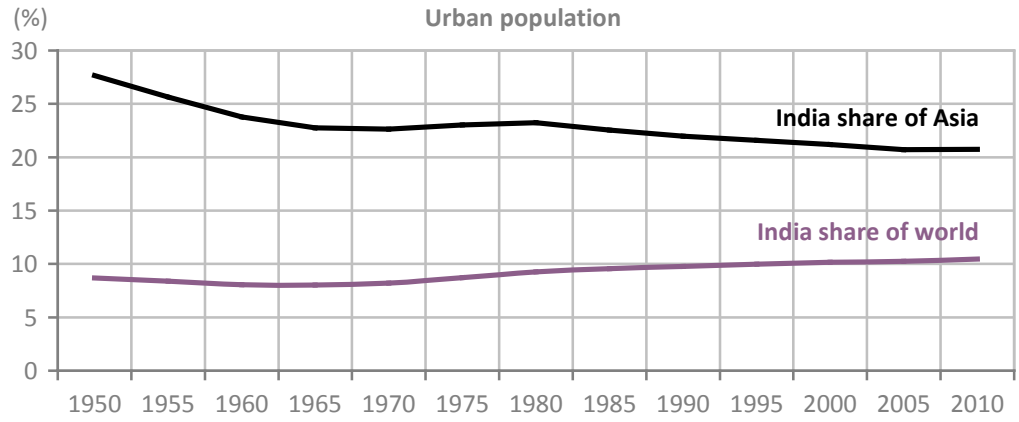
Urbanisation

Chart 2.13: Urbanisation in India is increasing gradually



Source: CMIE, Census India, UN Population database, IIFL Research

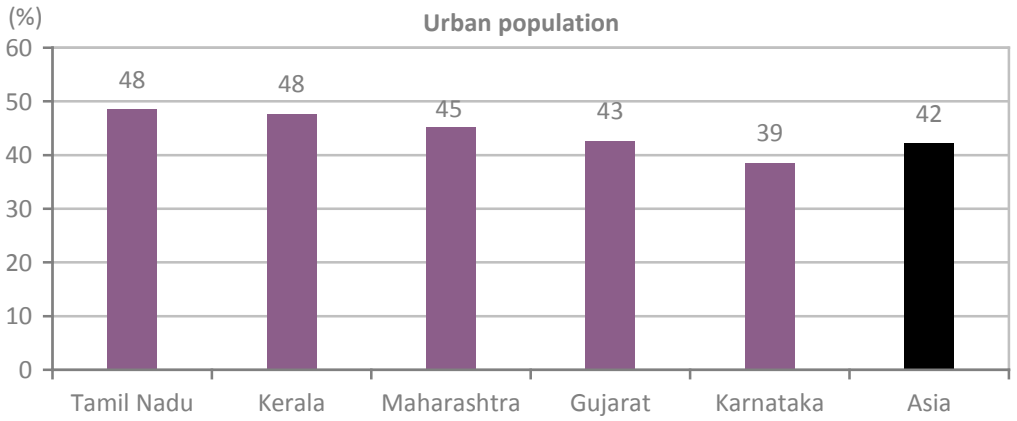
Chart 2.14: India is already home to a large urban population



Source: CMIE, Census India, UN Population database, IIFL Research

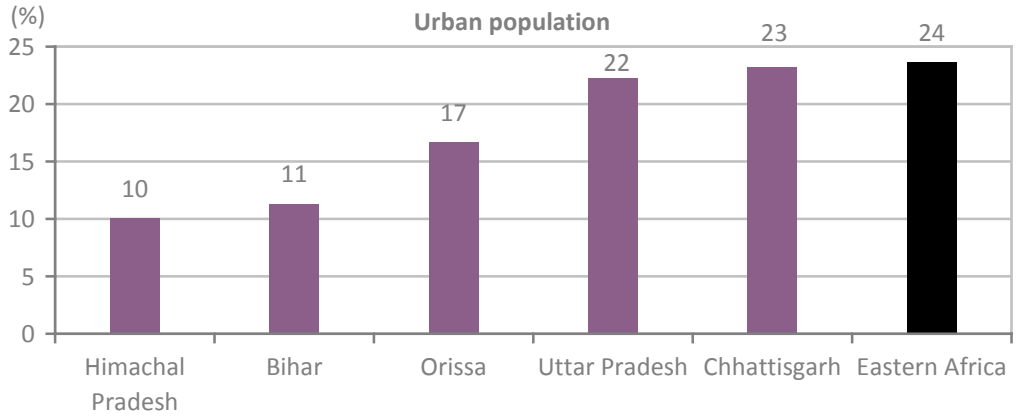
- India has among the lowest urbanisation rates across both developing and developed countries. However, given a large population, India is home to more than 20% of Asia's urban population and more than 10% of the world's urban population.
- India's urban population is rising faster than many peers. During the current decade, India's urban population will increase at 2.4% Cagr, higher than 2.2% for China, 1% for Brazil and 1.7% for Indonesia. In absolute terms this translates to an increase of 100m (~30%), putting pressure on urban infrastructure.

Chart 2.15: Urbanisation trends differ across states



Source: CMIE, Census India, UN Population database, IIFL Research

Chart 2.16: Some states are less urbanised than parts of Africa

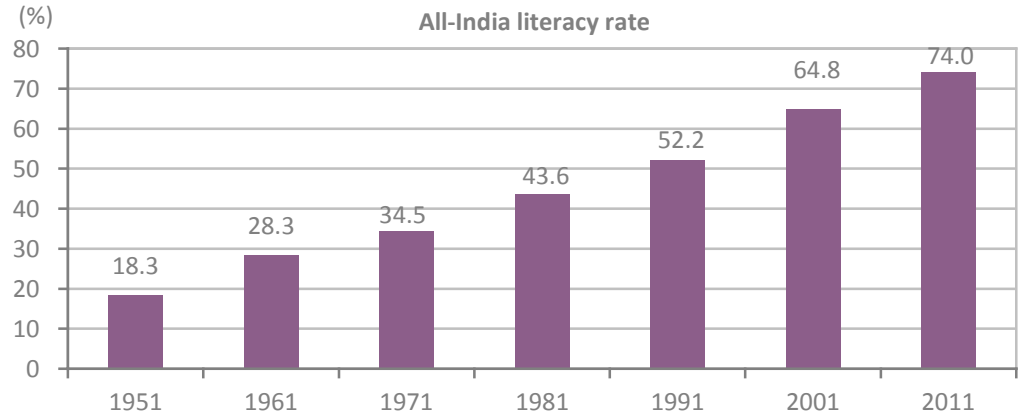


Source: CMIE, Census India, UN Population database, IIFL Research

- Similar to population growth rate, a wide divergence exists in urbanisation trends across states. The economically advanced states from the south and west have urbanisation trends comparable to that of Asia. However, the economically backward central and eastern states have urbanisation rates comparable to that of parts of Africa.
- The divergent trends in urbanisation reflects the disparity in economic growth over the past few decades. However, with economic growth in the backward states accelerating, this disparity should narrow.

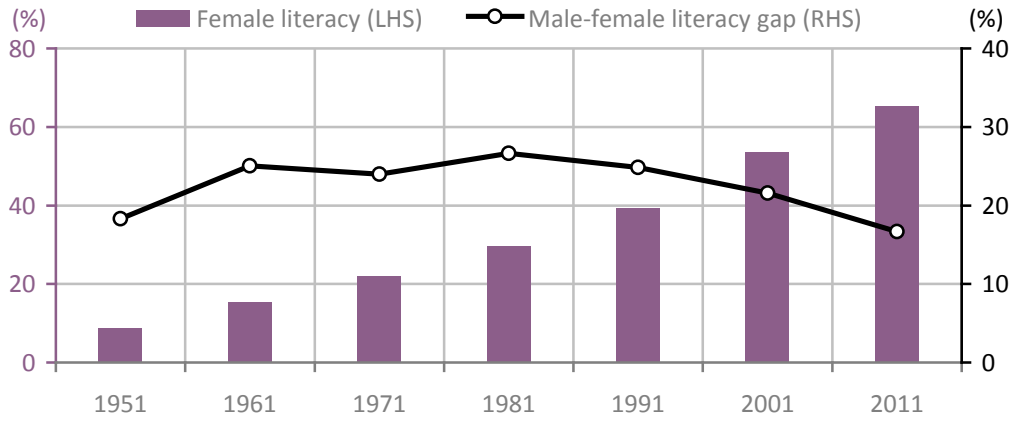
Literacy

Chart 2.17: Nearly 3/4th of the population is literate now



Source: CMIE, Census India, UN Population database, IIFL Research

Chart 2.18: Female literacy has risen sharply in the past 2 decades

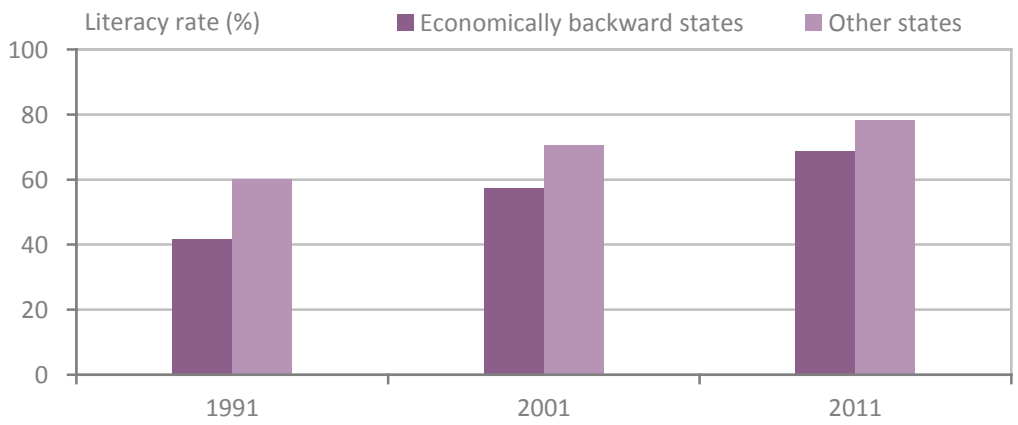


Source: CMIE, Census India, UN Population database, IIFL Research

- Literacy rate in India has increased sharply with nearly 3/4th of the population being literate now. Further, female literacy has risen faster than male literacy for three decades in a row and the gap between male-female literacy is now the narrowest since independence.
- Additionally, a rising proportion of working-age population is staying out of the workforce and spending time in educational institutions. Although this is creating short-term stress in the labour market, this is a positive from a medium-to-long-term perspective as less skilled labour will be replaced by more skilled labour.

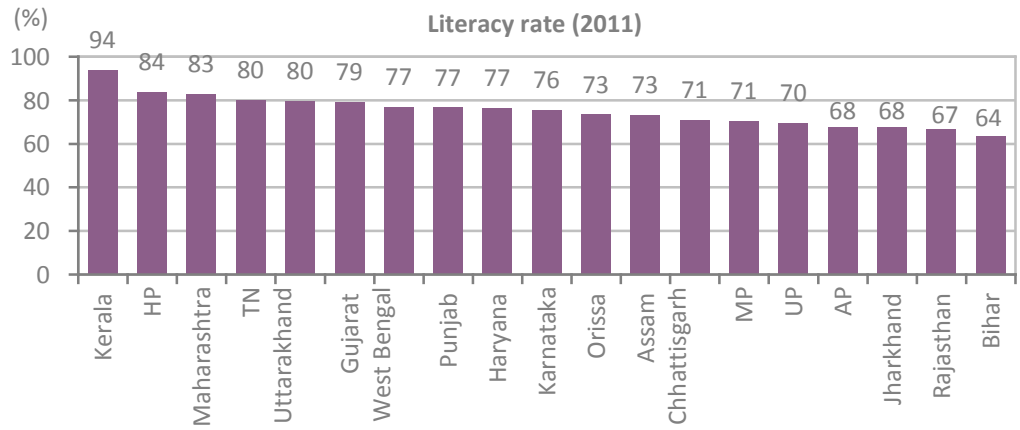
Literacy

Chart 2.19: Literacy rate in the backward states has increased



Source: CMIE, Census India, UN Population database, IIFL Research. Note: Includes Bihar, Jharkhand, MP, Chhattisgarh, Rajasthan, UP, Uttarakhand and Orissa.

Chart 2.20: Southern, north-eastern states have the highest literacy

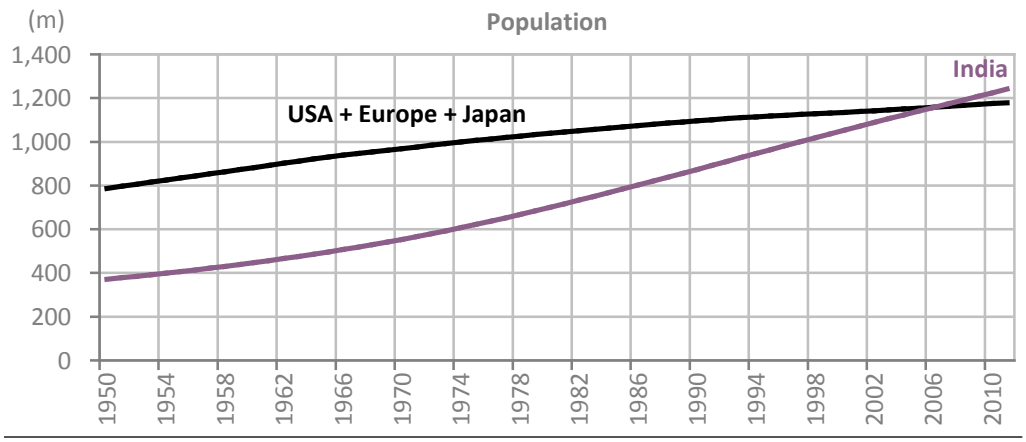


Source: CMIE, Census India, UN Population database, IIFL Research

- Similar to population growth, literacy rate in traditionally backward states is rising. The increase is faster than the overall literacy rate. Bihar, the least literate state, has a literacy rate that was the national average just a decade ago.
- The overall gap in literacy rate between the backward states and other states, which was almost 20ppt two decades ago, has declined to 10ppt by 2011. Rising literacy itself would have positive rub-on implications for population growth, productivity and income levels, gender discrimination, social justice, etc.

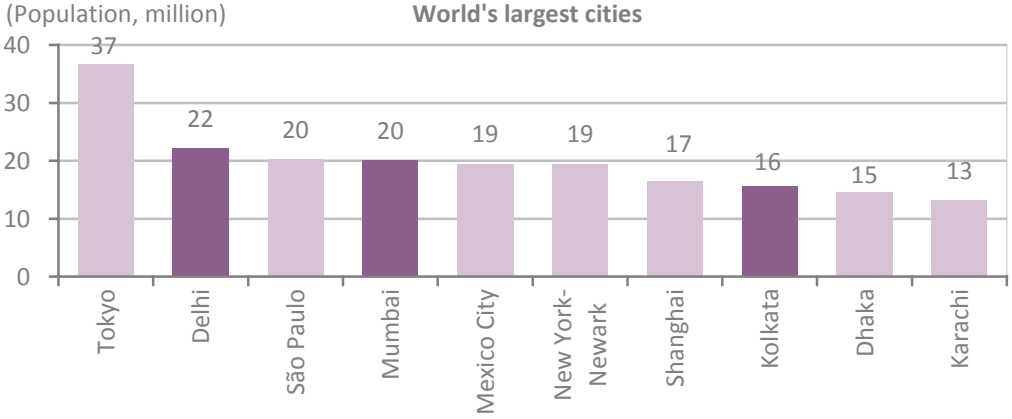
Did you know?

Chart 2.21: India's population is more than US, Europe and Japan



Source: CMIE, Census India, UN Population database, IIFL Research

Chart 2.22: Three Indian cities are among the top 10 globally



Source: CMIE, Census India, UN Population database, IIFL Research

- Most Indian cities are marked by a stark contrast, with the scenario polarised by large slums and plush residential complexes. Further, urban infrastructure is already under pressure due to overcrowding.
- On the positive side, however, population growth rate of major cities has decelerated sharply over the past decade. The population of Mumbai, for example, has actually declined during the past decade.

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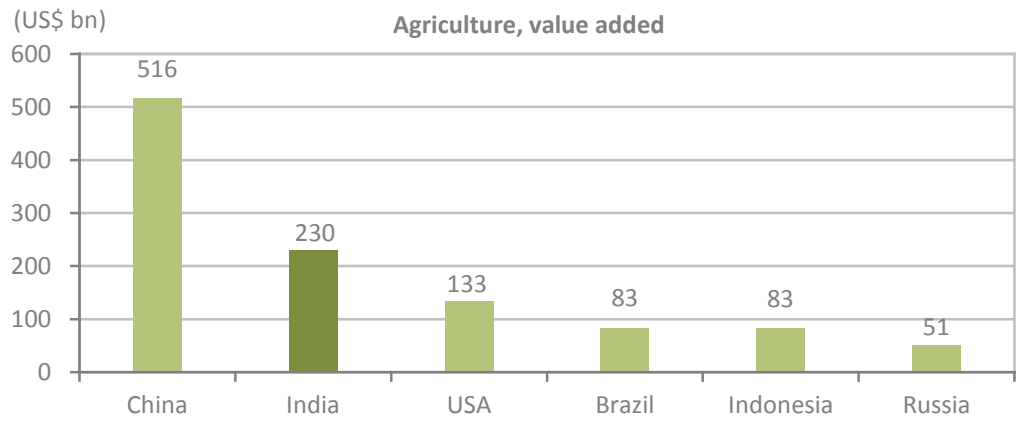
Agriculture

Agriculture is an important sector in India, especially given the backdrop of sustained, double-digit, food inflation of recent years. Although the share of agriculture in national output has declined significantly, the sector still employs more than 50% of India's workforce. Further the sector has a feedback loop into both industry and services. Not surprisingly, buoyant agricultural output sets the stage for strong overall economic growth.

Land under agriculture has not increased. Hence, growth in output is largely contingent on productivity improvements. Recent productivity trends show only a modest improvement. Overall investment in agriculture (relative to Agriculture GDP) has doubled in the past decade. However, overall agriculture growth rate has decelerated in the past decade. Although the overall mix of agricultural growth is changing for the better and thus agriculture is becoming less subsistence-oriented and more commercial, yield growth in important crops such as rice and wheat has declined to below the population growth rate. India's productivity remains low and whereas the wide inter-state productivity gap is narrowing, though modestly, it is not narrowing vis-à-vis the global average. FDI in retail is a medium-term market-based solution to improve farm productivity and the agricultural supply chain. But this initiative has been stonewalled, given the current hostile political climate. Hence, although food inflation might decline in the near term as the base effect catches up, the medium-term prognosis remains grim. Another medium-term worry is the gradual decline in the quantum of annual rainfall.

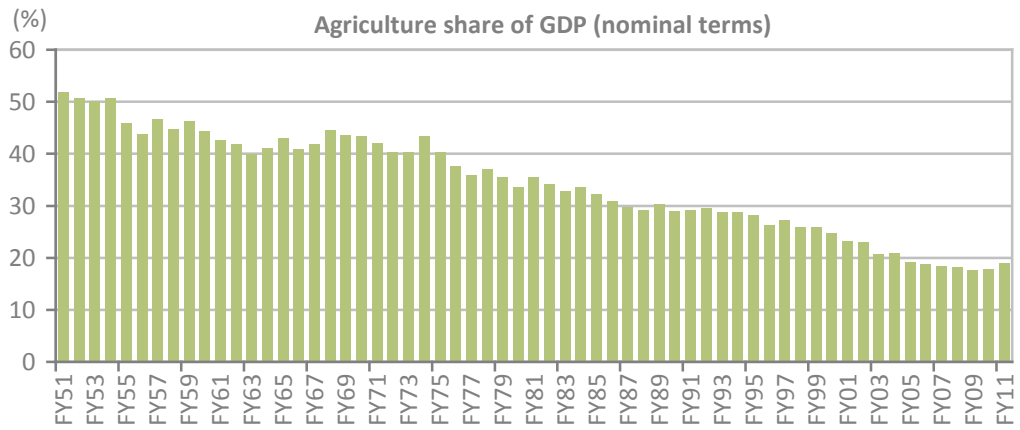
Size and composition

Chart 3.1: India has the second-largest agriculture sector



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

Chart 3.2: Share of agriculture in overall GDP has steadily declined

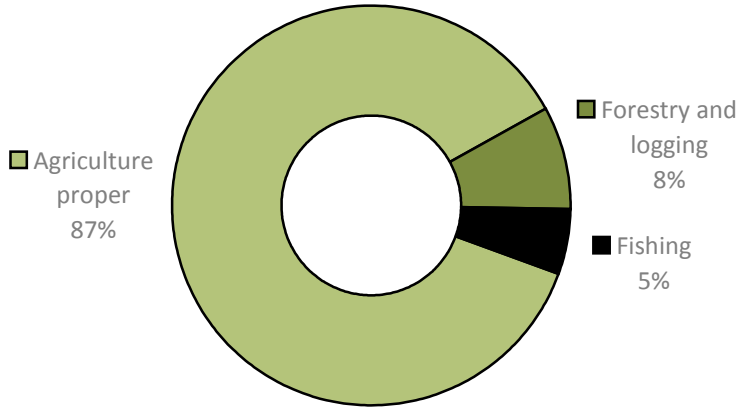


Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research. Note: Data from FY05 is based on 2004-05 base year national accounts data; prior data is based on 1999-2000 base year data.

- India has the second-largest agriculture sector (in terms of value add) in the world, almost twice that of the US but less than half that of China. India is the largest producer of fresh fruit, milk, and millets such as jowar, bajra, and ragi. It is the second-largest producer of rice, wheat, cashew, and cotton seed and the third-largest producer of tobacco, sorghum, and hen's eggs.
- Share of agriculture in the overall economy has been gradually declining (sub 20%), but agriculture continues to be a source of livelihood to a significantly large number of people (over 50%) and thus it remains a critical sector of the economy.

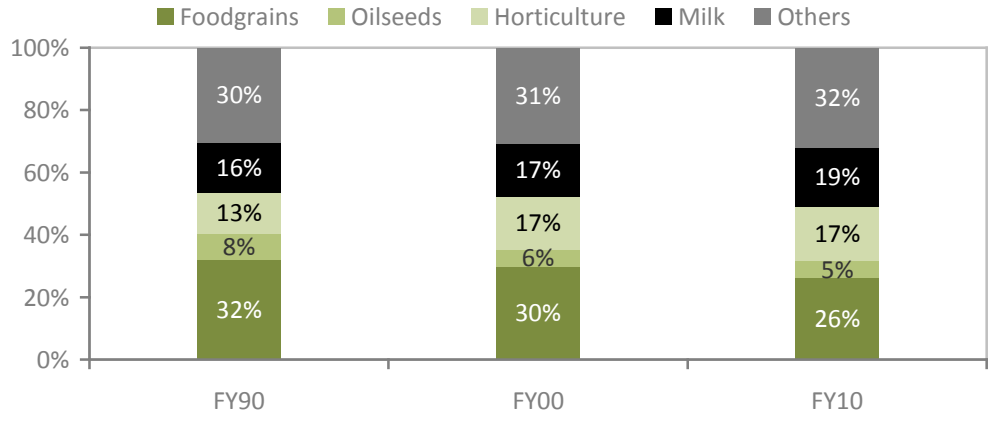
Size and composition

Chart 3.3: Proper agriculture dominates agricultural GDP



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

Chart 3.4: Composition of agricultural output is gradually changing

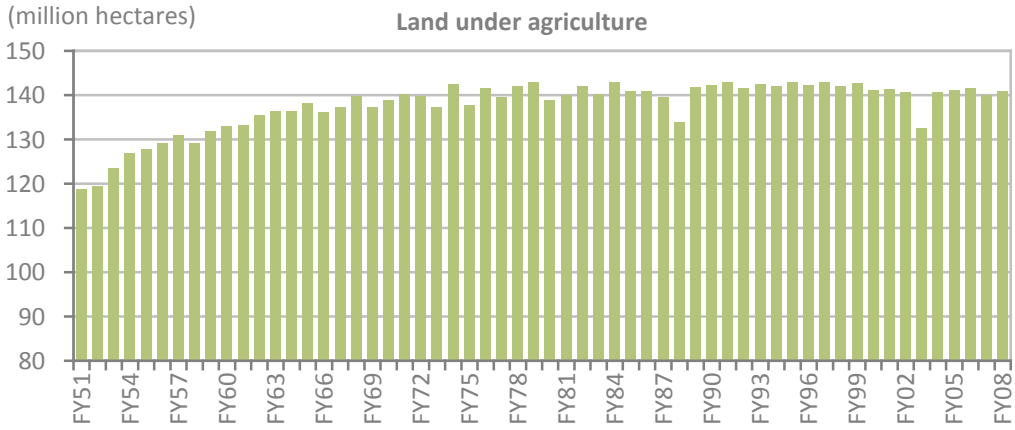


Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

- Agriculture, which was largely subsistence-driven historically, is gradually becoming more commercial. The share of 'subsistence' crops such as food grains has declined over the past two decades from around 1/3rd to around 1/4th, with a concomitant rise in higher value-added activities such as horticulture and dairy.
- Given changing dietary patterns due to rising income levels, especially for people at the bottom end of the pyramid, price response (inflation) is also favouring this shift, which would continue in the medium term.

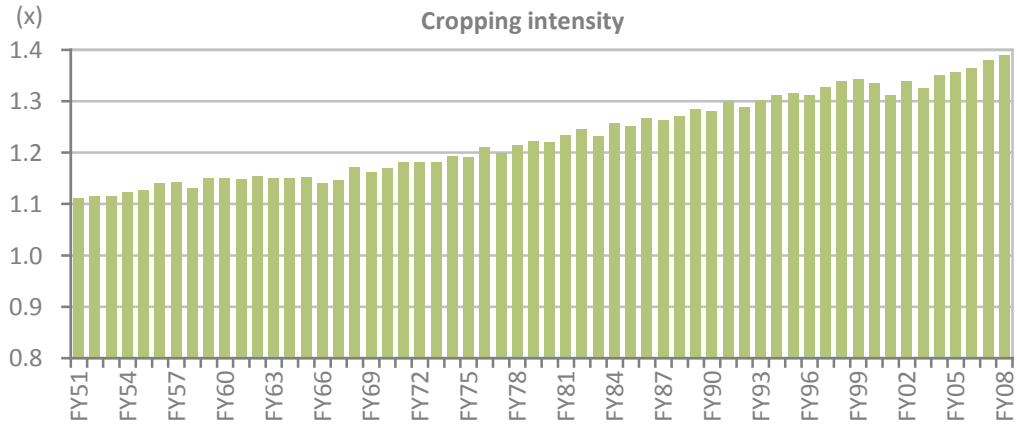
Acreage

Chart 3.5: Land under agriculture has remained constant



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

Chart 3.6: Cropping intensity has gradually increased

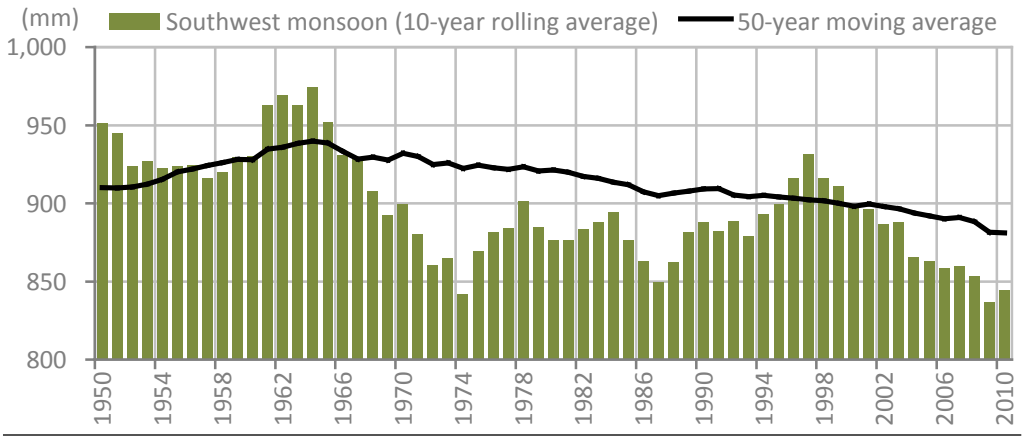


Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

- A key feature of agriculture has been the near-stagnant land area being cultivated, at around 140m hectares. However, cropping intensity has gradually increased from 1.1x just after independence to 1.4x currently, resulting in effective land under agriculture increasing from 130m hectares just after independence to 200m hectares now, an increase of about 50%.
- As against an effective increase of about 50% in land under agriculture, agriculture value added in real terms has increased by almost 4.5x, implying strong productivity gains in the past six decades.

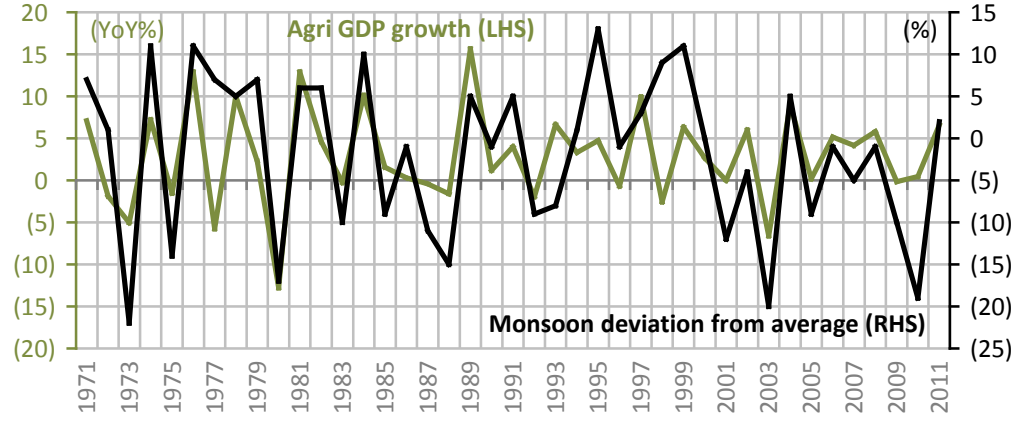
Monsoon

Chart 3.7: Rainfall has been gradually trending lower



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

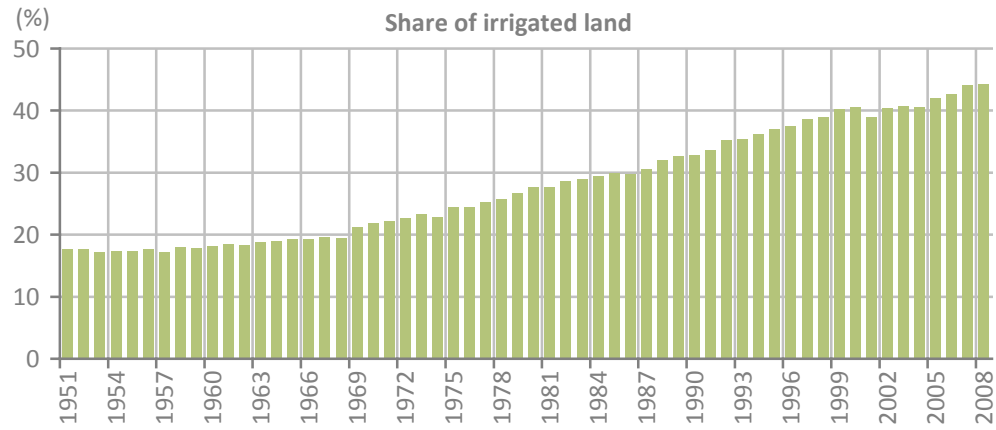
Chart 3.8: Monsoon is the key driver of near-term growth



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

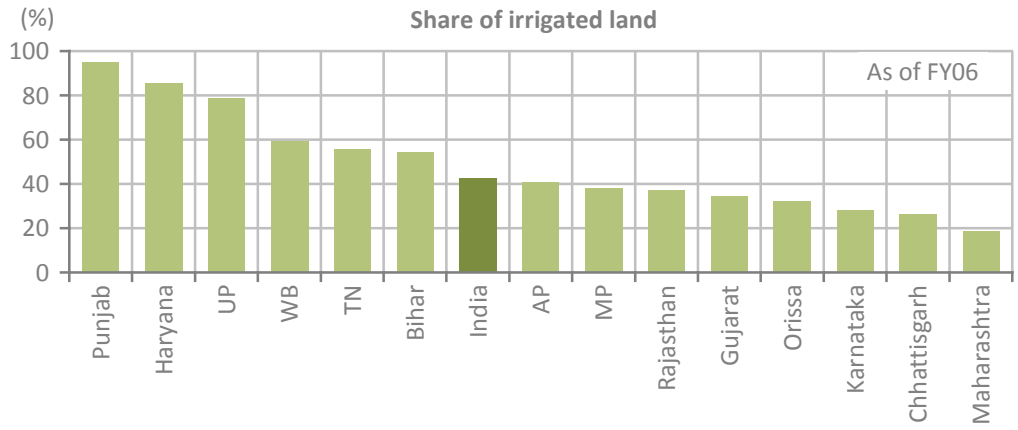
- Monsoon is the single-largest driver of short-term growth in agriculture as majority of the agricultural land is still rain-fed. A worrying sign is that the south-west monsoon, the key seasonal rainfall, has steadily declined over the past few decades.
- However, agricultural output seems to be becoming resilient to rainfall shocks. Thus, of the four years in which rainfall was deficient by 10% or more in the 2000s, agricultural output was flat during three of those years as against an average 4% decline historically.

Chart 3.9: Irrigation has gradually improved but remains <50%



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

Chart 3.10: Inter-state divergence in irrigation is significant

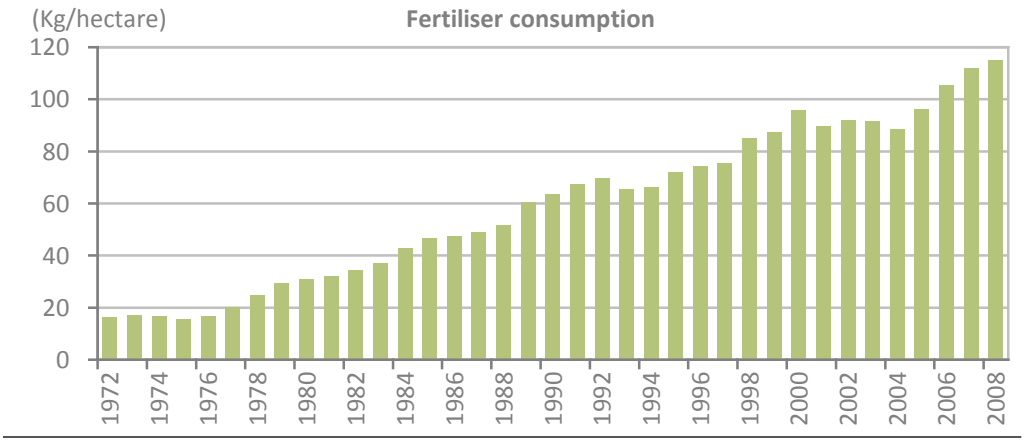


Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

- Even today less than half of the total land is irrigated. Further within the low overall irrigation coverage, there is significant inter-state divergence. Thus, for states such as Punjab and Haryana, 80-90% of land is irrigated whereas states such as Maharashtra and Karnataka, only 20-30% of land is irrigated.
- The north-western states bore the brunt of the 2009 drought, which was the worst in three decades. However, given their high irrigation coverage, the adverse impact on agriculture was limited. Thus, agriculture GDP growth did not decline in FY10 despite rainfall being 20% below average.

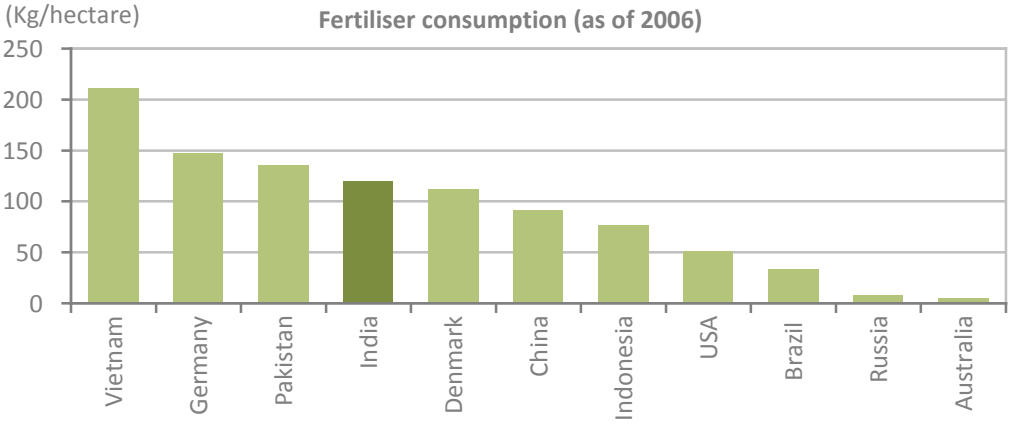
Fertiliser usage

Chart 3.11: Fertiliser consumption has increased 6x in four decades



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

Chart 3.12: Fertiliser consumption in India is quite high

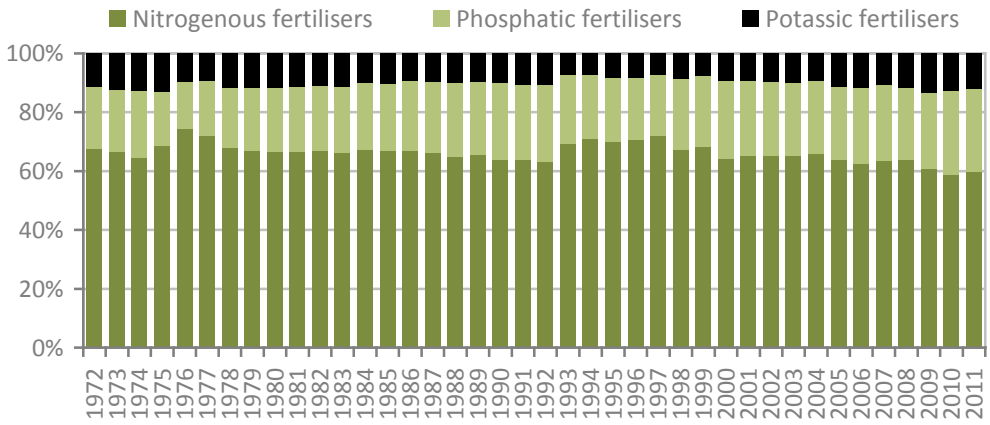


Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

- Strong growth in use of fertilisers has been a major source of productivity improvement since independence. Per hectare use of fertiliser has risen almost 6x in the past four decades.
- India's overall fertiliser consumption (per unit of land) is on the higher side globally and is about 30% higher than China.

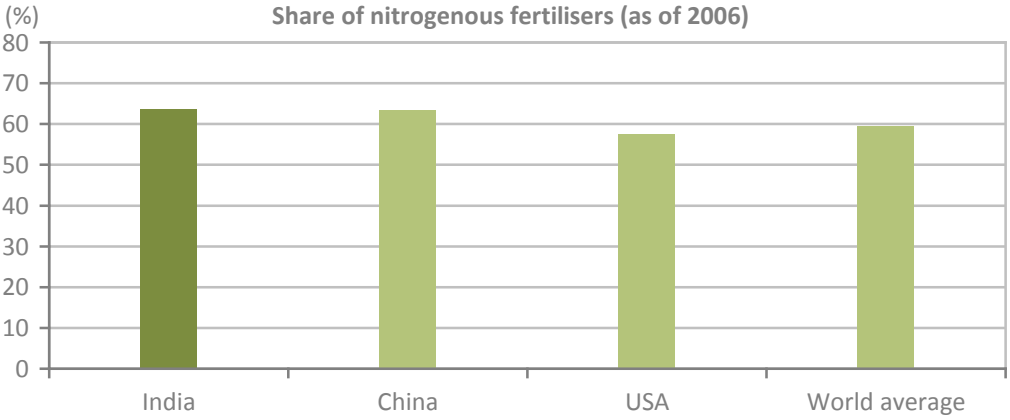
Fertiliser usage

Chart 3.13: Imbalance in India's fertiliser consumption has reduced



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

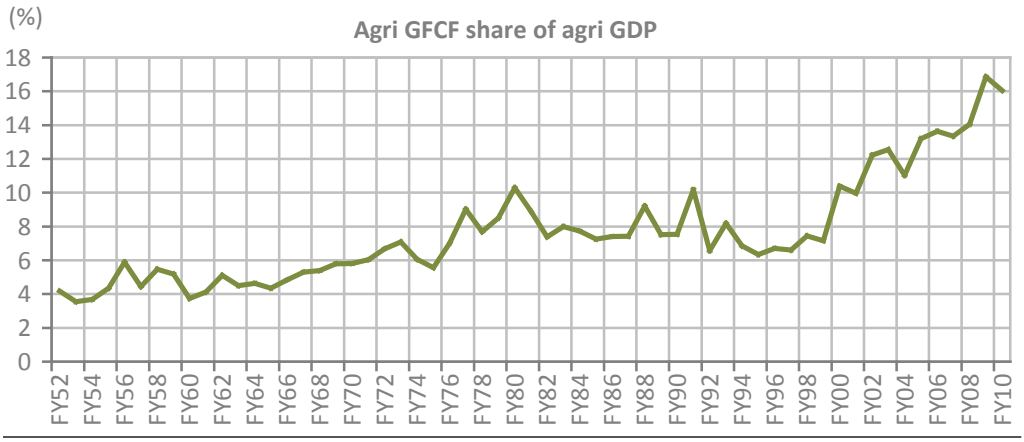
Chart 3.14: Mix of fertiliser use is now similar to global average



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

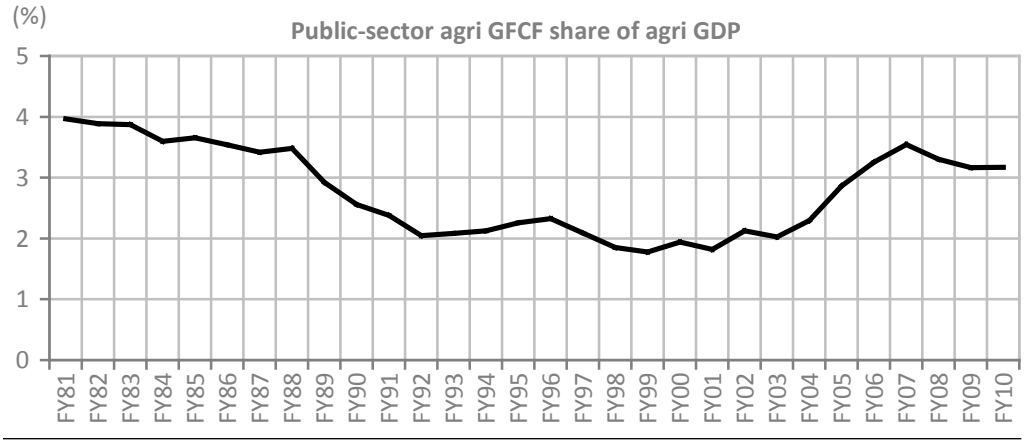
- For decades, fertiliser use in India had been heavily skewed towards highly subsidised nitrogenous fertilisers such as urea. In the mid-1990s, the share of nitrogenous fertilisers was 70% as against an 'optimal' ratio of just under 60%. However, the consumption pattern has gradually changed with the share of nitrogenous fertilisers declining to 60% by FY11.
- Nevertheless, this will likely change again in FY12, as the price differential between nitrogenous and other fertilisers has widened sharply because the government has changed the pricing mechanism for other fertilisers.

Chart 3.15: Investments in agriculture have increased



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

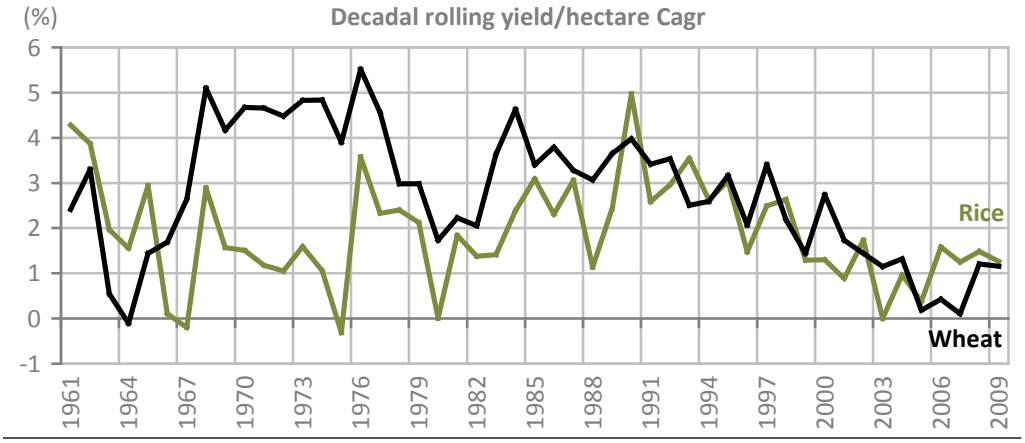
Chart 3.16: Public sector investment, however, remains below peak



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

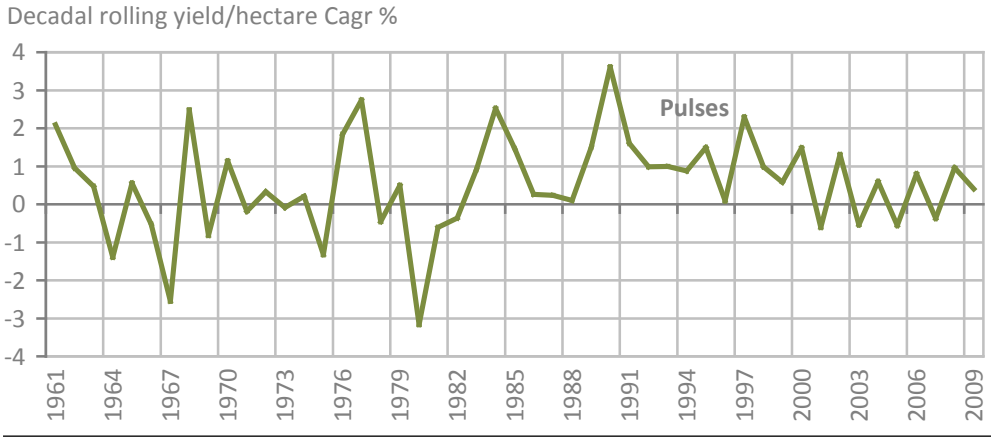
- Investment in agriculture had plateaued at about 8% of agriculture GDP since the mid-1970s until the end-1990s. However, since then, it has almost doubled to 16% of agriculture GDP, though it is still at just half of overall investment rate.
- Although the central government's rural spending has increased significantly in recent years, the increased expenditure has been skewed towards 'revenue' expenditure (like higher fertiliser subsidy, NREGA, and higher MSPs) than towards increasing investments. Thus, public sector investment in agriculture remains low at more than 3% of Agri GDP or about 15-20% of overall agricultural investments.

Chart 3.17: Yield growth has been steadily declining



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

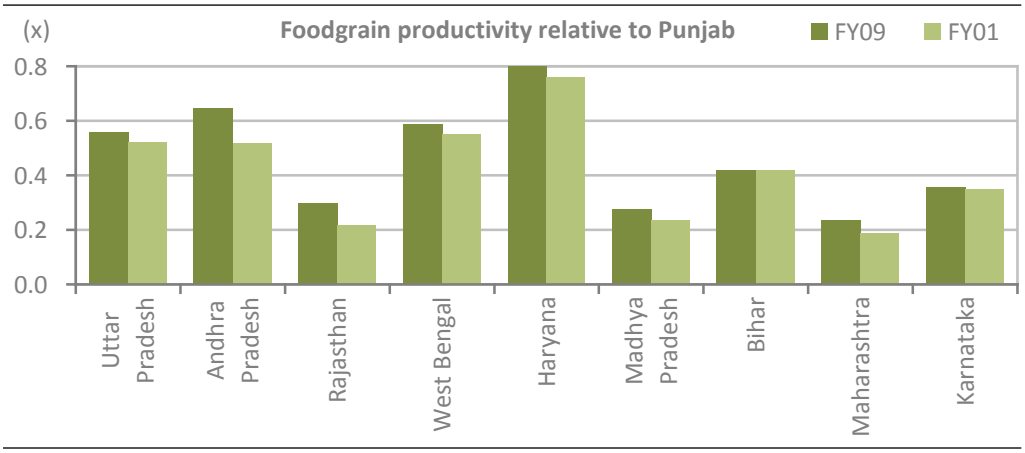
Chart 3.18: Yield growth for pulses has been under 1%



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

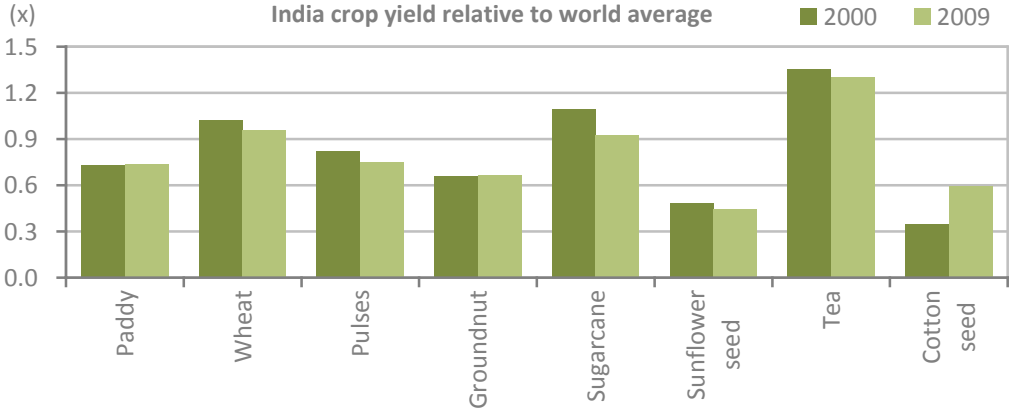
- Yield of rice as well as wheat has increased at just above 1% Cagr over the past decade whereas for pulses, it has increased at less than 1% Cagr. Yield increase has thus lagged population growth (~1.6% Cagr over the past decade) for all three major categories of food grains.
- In pulses, India has now become a major importer. The country imports 15-20% of its annual production to meet domestic demand.

Chart 3.19: Inter-state productivity gap is high



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

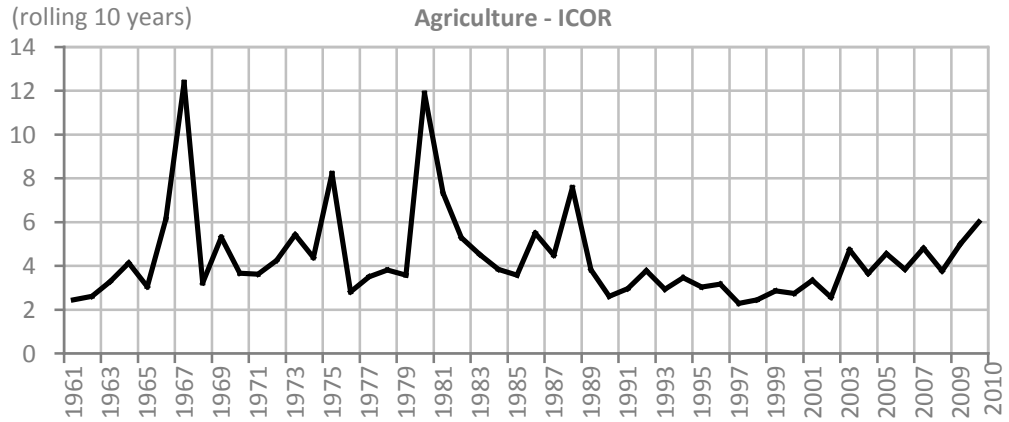
Chart 3.20: India's productivity gap to the world is not narrowing



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

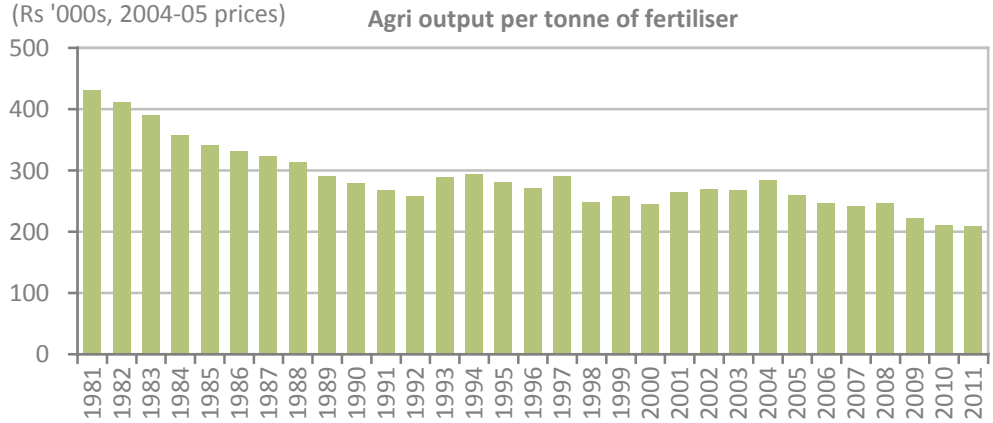
- There is wide inter-state divergence in productivity and this gap is narrowing gradually. Thus, over the past decade (FY01-09), only Andhra Pradesh and Rajasthan have seen a large improvement in food grain productivity relative to Punjab (India's most productive state).
- Globally, India's productivity is comparable to the world average in crops such as wheat, sugarcane and tea. But in other crops, there is a significant productivity gap. Further, barring cotton, relative to the world average, India's productivity has declined in most other crops over the past decade.

Chart 3.21: ICOR for agriculture has been steadily rising



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research. Note: Data from FY05 is based on 2004-05 base year natl accounts data; prior data is based on 1999-2000 base year data.

Chart 3.22: Fertiliser productivity has declined steadily

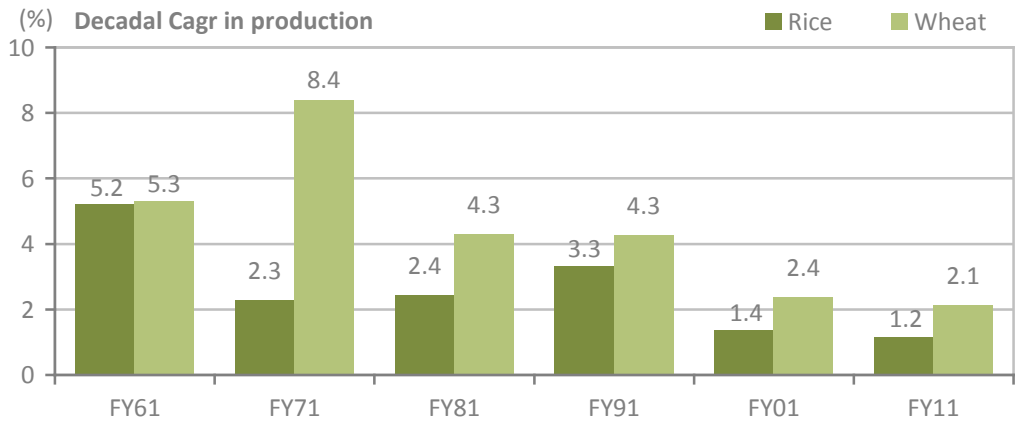


Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

- Capital productivity in agriculture has declined significantly over the past decade with ICOR rising to 6 in the 1990s from 2-4 in the 1970s. This is not surprising since overall agriculture GDP growth has decelerated in the 1990s and 2000s despite significant increase in investments in the agriculture sector.
- This suggests that agriculture has entered a phase of diminishing factor productivity where higher investments are needed just to maintain current growth rates. For instance, this is clearly evident at least in fertiliser, as output per unit of fertiliser has declined ~50% since the early 1980s.

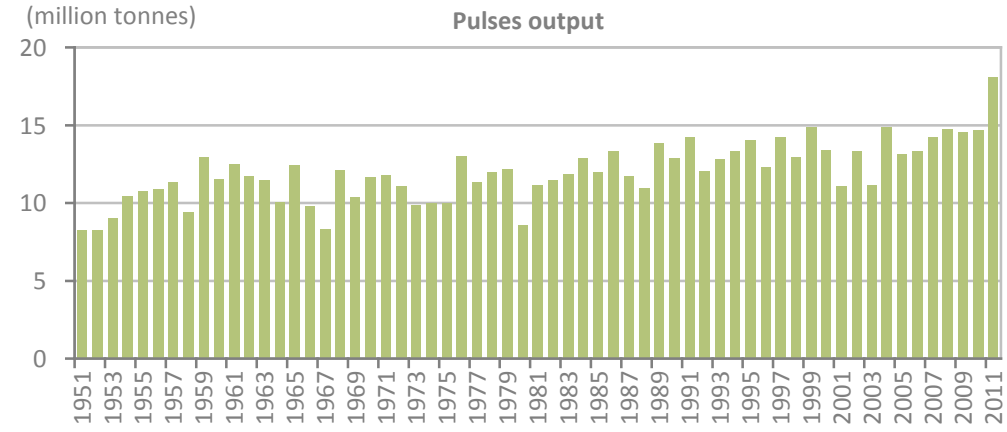
Food inflation

Chart 3.23: Production growth in food grains has been declining



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

Chart 3.24: Output of pulses has been nearly stagnant

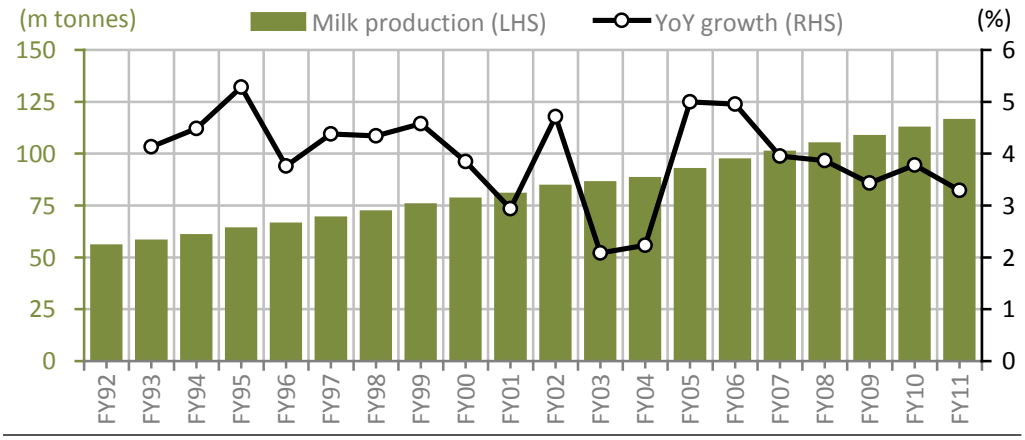


Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

- Low productivity gains during the past decade has led to a sharp deceleration in growth of food grains. In fact, rice output registered 1.2% Cagr during the last decade, which was lower than population growth rate of 1.6% over the same period.
- Output of pulses has increased sharply in FY11 on the back of 25-30% increase in support prices (after remaining constant for two decades). However, indications are that FY12 output may decline despite further double-digit increase in support prices.

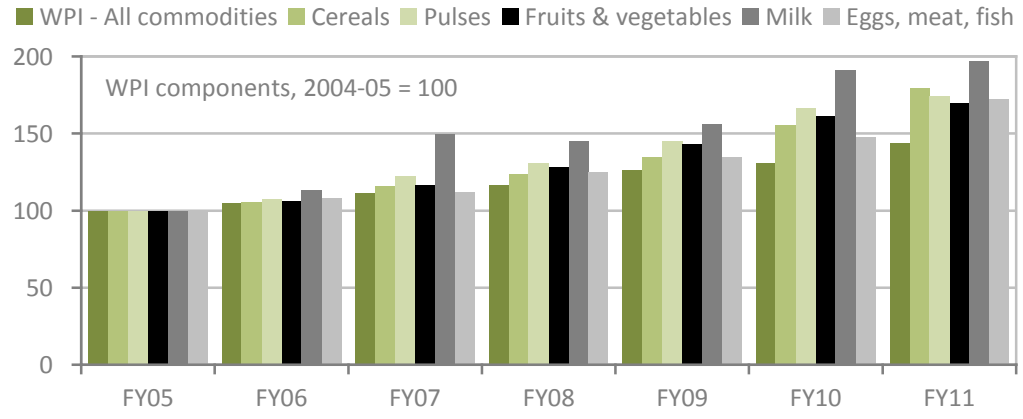
Food inflation

Chart 3.25: Growth in milk production is decelerating



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

Chart 3.26: Food prices have almost doubled in the past five years



Source: CMIE, FAO, Govt of India, NDDB, IMD, IIFL Research

- Low productivity engendered slower growth in output in a robust demand environment, leading to sharp price inflation. Prices of most farm products, from cereals to fruits and milk, have risen at 10-12% Cagr over the past six years as against overall WPI inflation of 6%.
- Unless productivity improves sharply over the next few years, food inflation will remain elevated in the medium term, pushing up overall inflation in the economy.

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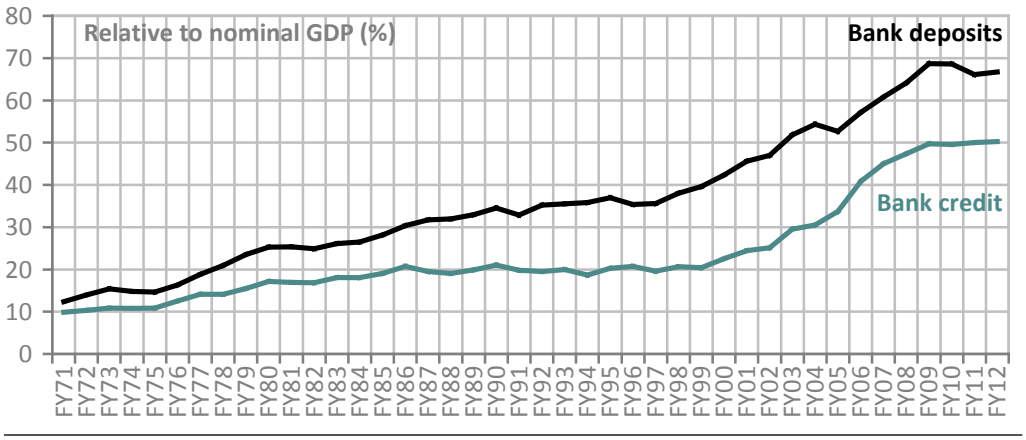
Money and credit

Banking penetration has steadily increased since independence and credit and deposits have risen considerably faster than the overall GDP. However, rural India continues to be under-banked with credit-to-GDP ratio of under 20% as against 80% for urban India. Public sector banks, which consistently lost market share in both credit and deposits, have seen market share gains following the financial crisis. India's credit market continues to be dominated by banks since the non-banking credit sector (fixed income AUM of mutual funds and insurance companies) has seen only a modest increase relative to banking assets over the past few years.

Interest rates in India have structurally come down from double-digit rates of the 1990s, reflecting the decline in inflation. Despite the recent pick-up, inflation has been about 2ppt lower in the 2000s relative to the 1990s. Increased holding of currency by households, despite an increase in banking penetration and lower inflation, is an interesting trend observed in the last decade. This perhaps reflects the sharper decline in nominal interest rates relative to inflation and sharper acceleration in the rural economy that is still relatively under-banked. Another interesting trend following the financial crisis is the changing composition of RBI's balance sheet: domestic assets, which had a negligible share in RBI's balance sheet, as recently as in FY08, have risen to 20% currently. This is an indication of the tight monetary conditions due to inflation, sharply higher government borrowings, and limited FX intervention due to modest BoP surpluses.

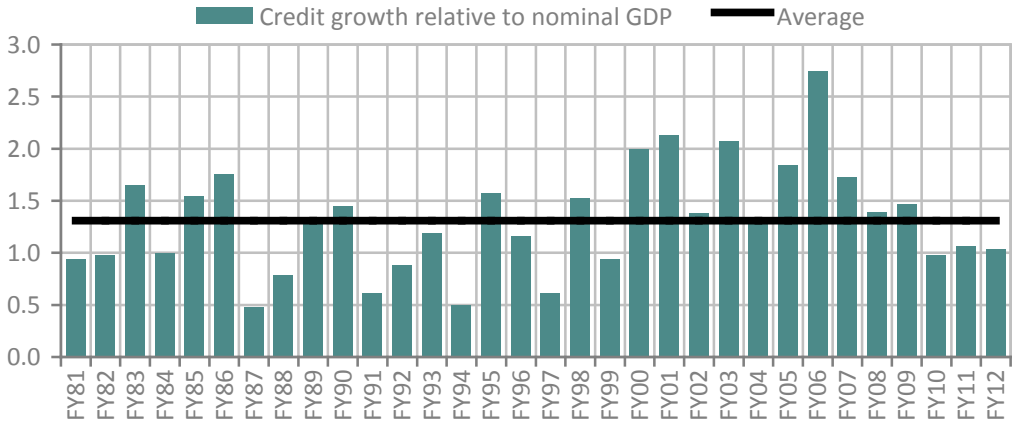
Banking penetration

Chart 4.1: Banking sector has consistently grown faster than GDP



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.2: Historically, credit has grown at 1.3x nominal GDP

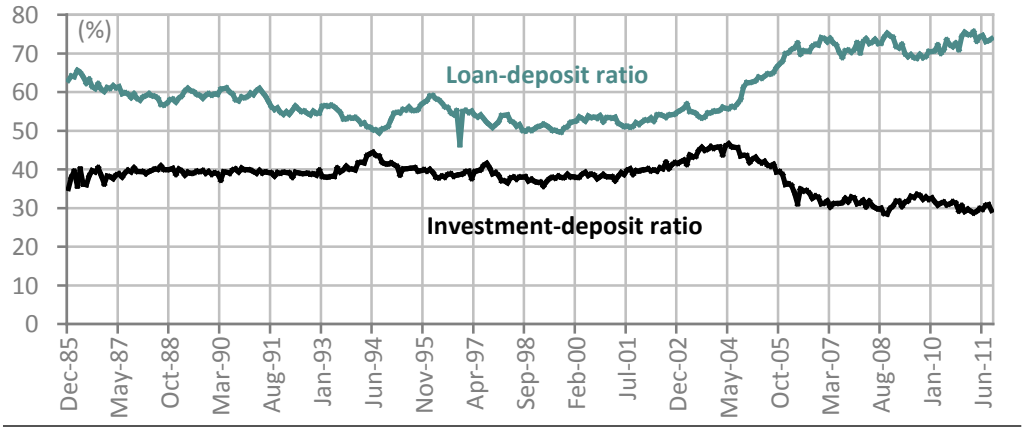


Source: CMIE, RBI, World Bank, IIFL Research

- Penetration of the banking industry has increased significantly with credit-to-GDP ratio rising 5x and deposit penetration rising almost 7x over the past four decades.
- However, over the past three years, credit growth relative to nominal GDP growth has been relatively sluggish. Thus, as against historical credit growth multiplier of 1.3x nominal GDP growth, credit growth has increased around 1x nominal GDP growth, the slowest pace since the late 1990s. This reflects the absence of the biggest cyclical driver of credit demand — the capex cycle.

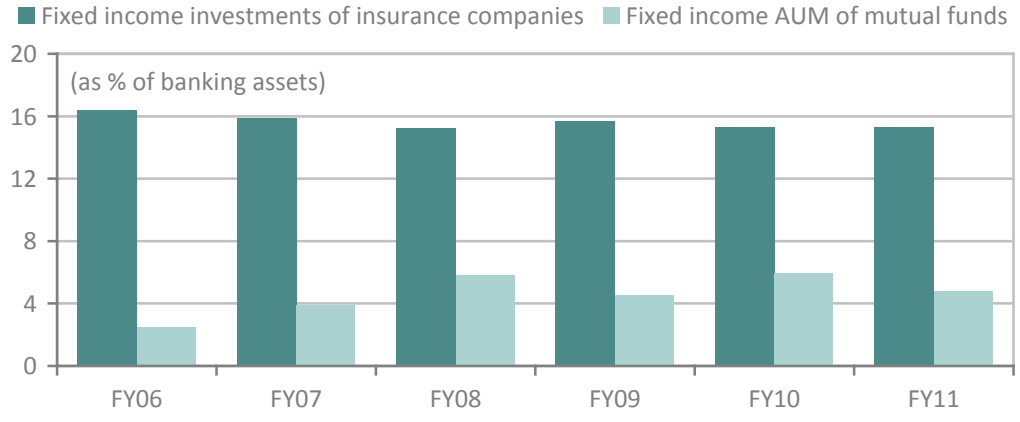
Banking penetration

Chart 4.3: Loan-deposit ratio has structurally moved up



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.4: Non-banking system has increased modestly

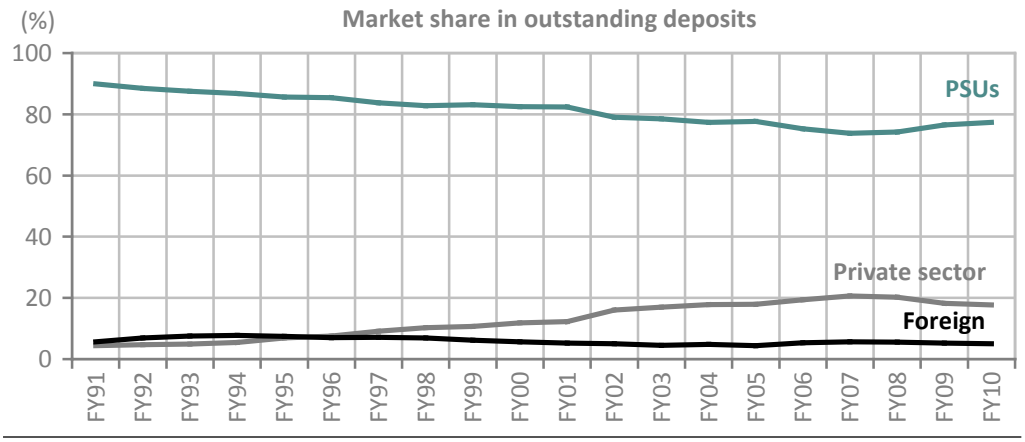


Source: CMIE, RBI, World Bank, IIFL Research

- Loan-deposit ratio of the banking system increased significantly in the 2000s to more than 70% as government finances improved significantly, accommodating private sector credit growth without unsustainable growth in money supply.
- India's non-banking system has grown only modestly over the past few years. Although fixed income AUM of domestic mutual funds almost doubled relative to banking assets, it was largely offset by the decline in the share of insurance companies. The share of insurance companies declined despite their robust growth as their business mix was heavily skewed towards equity-linked products.

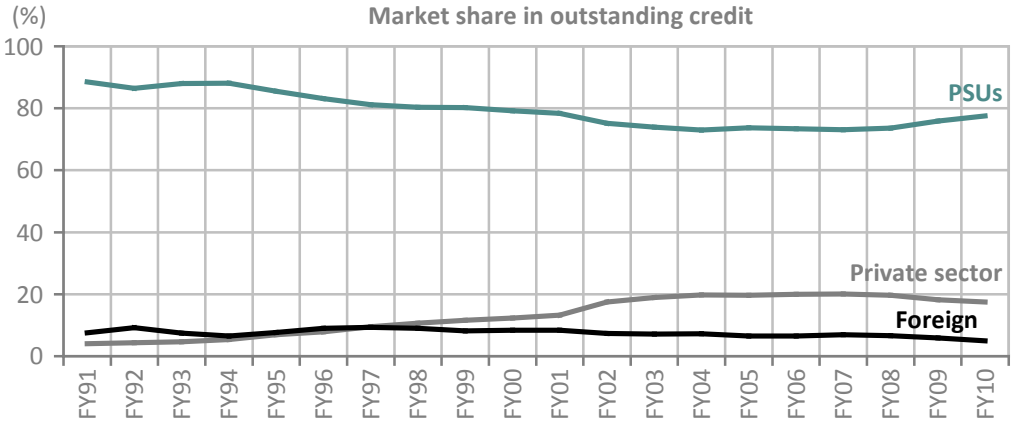
Market share

Chart 4.5: PSU banks have steadily lost market share in deposits…



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.6: …as well as in the credit market

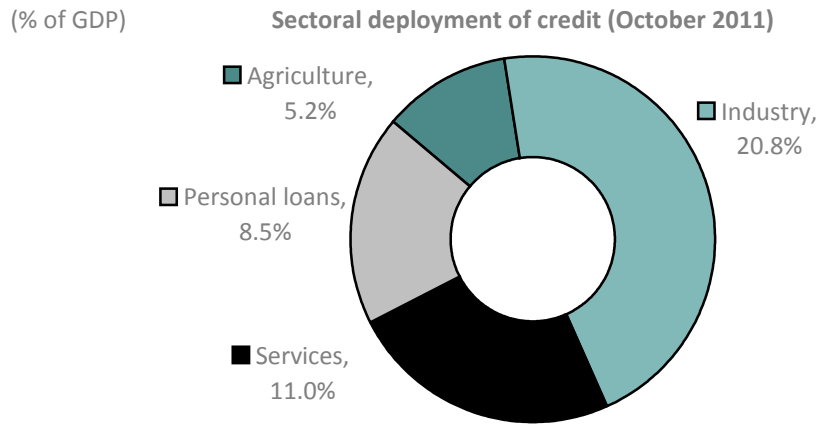


Source: CMIE, RBI, World Bank, IIFL Research

- Despite losing market share over the past two decades, PSU banks still command ~80% share in both deposits and credit. Further, over the past three years, market share of PSU banks has actually increased, in part reflecting the stronger deposit growth as well as consolidation by a large private sector bank following the financial crisis.
- Foreign banks have seen a steady decline in their market share, especially in credit, from ~9% in mid-1990s to ~5% in FY10. The decline was especially sharp after the financial crisis, as foreign banks saw a YoY decline in credit.

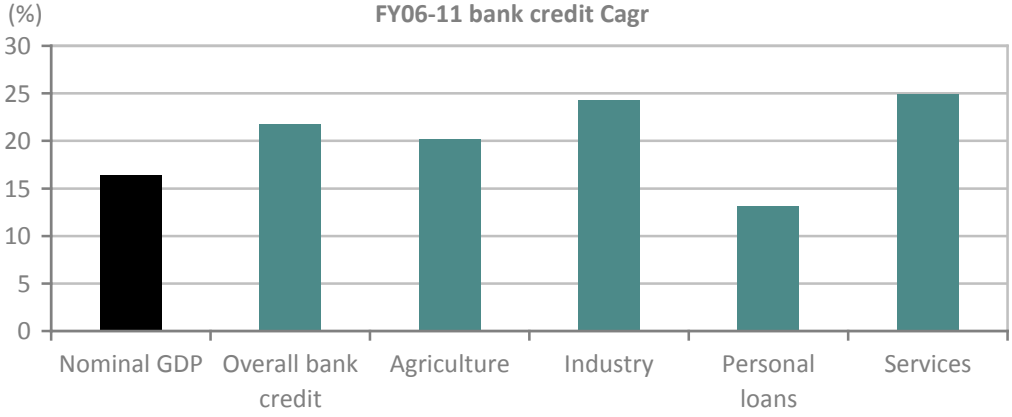
Sectoral distribution of credit

Chart 4.7: Industrial sector is the biggest recipient of credit



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.8: Personal loans have seen sluggish growth in recent times

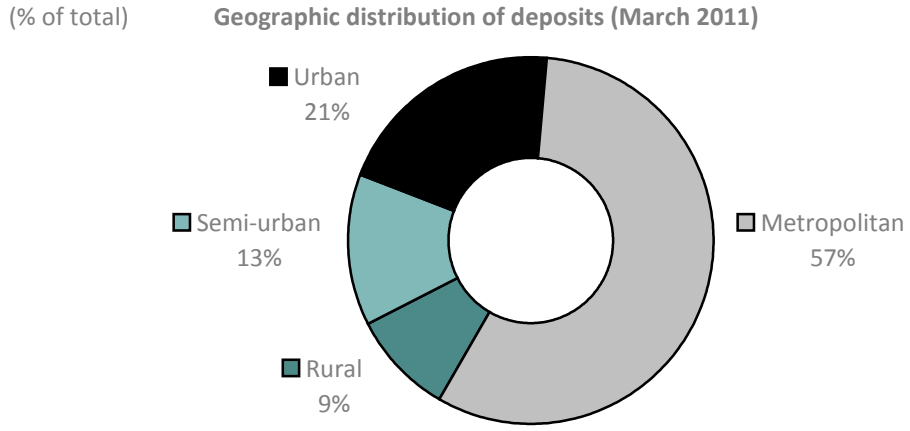


Source: CMIE, RBI, World Bank, IIFL Research

- Highlighting the low sensitivity of credit in India's consumption story, personal loans registered just 13% Cagr over the past five years, slower than even nominal GDP growth; worth noting is that this period has seen robust growth in private consumption.
- In contrast, services growth, which is relatively less credit-intensive, has seen the fastest credit growth at ~25% Cagr, driven by NBFC and commercial real estate loans.

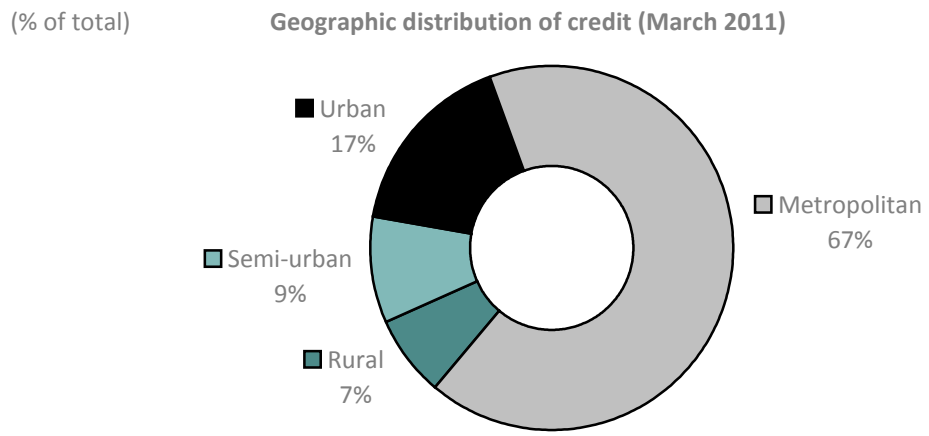
Geographic distribution of credit

Chart 4.9: Urban areas (incl metropolitan) have ~80% of deposits



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.10: Banking credit is even more skewed towards urban areas

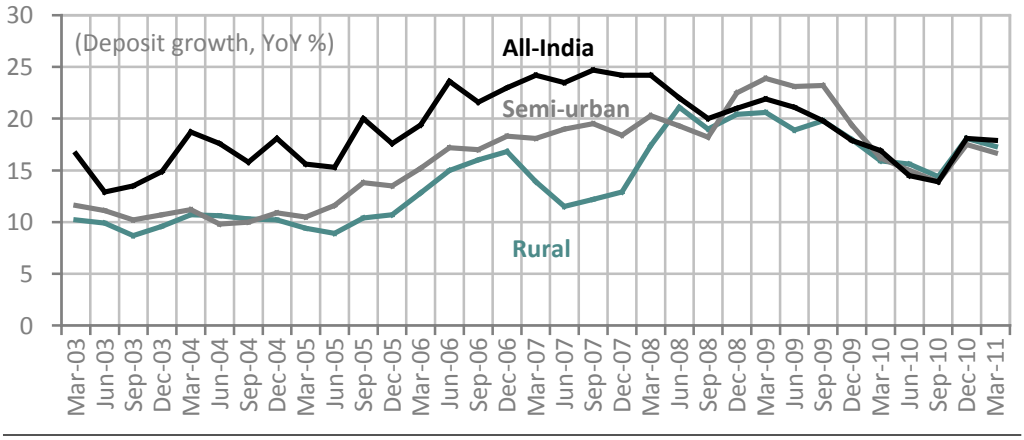


Source: CMIE, RBI, World Bank, IIFL Research

- Geographically, the metropolitan region is by far the largest source for both deposits and credit. The loan-deposit ratio in other regions is significantly below that in the metropolitan regions. Thus, the other regions are a source of deposits to be lent to metropolitan region.
- Credit penetration in rural areas remains extremely low because despite contributing ~50% to GDP, its share in banking credit is under 10%, rendering a credit-to-GDP ratio of under 10%; even including semi-urban areas, the ratio remains under 20%. In contrast, in urban India, the ratio is above 80%.

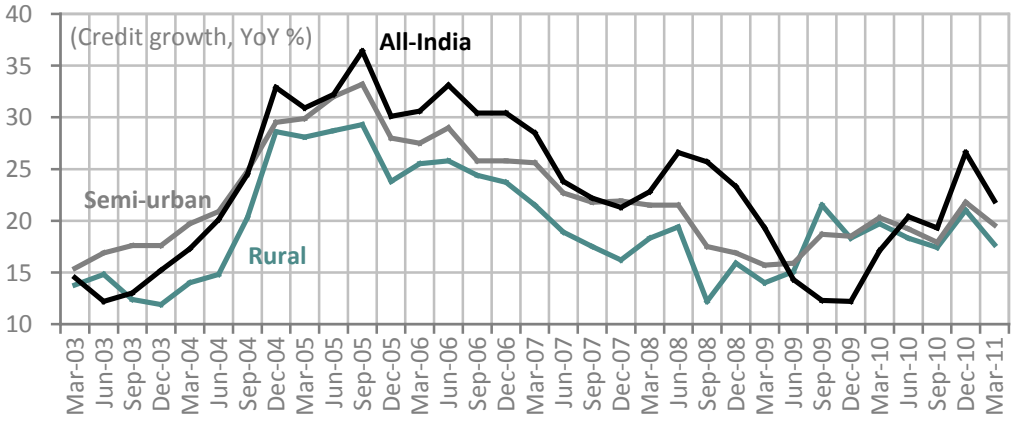
Geographic distribution of credit

Chart 4.11: Rural deposit growth generally lags overall deposits...



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.12: ...and this has been the case with credit growth too

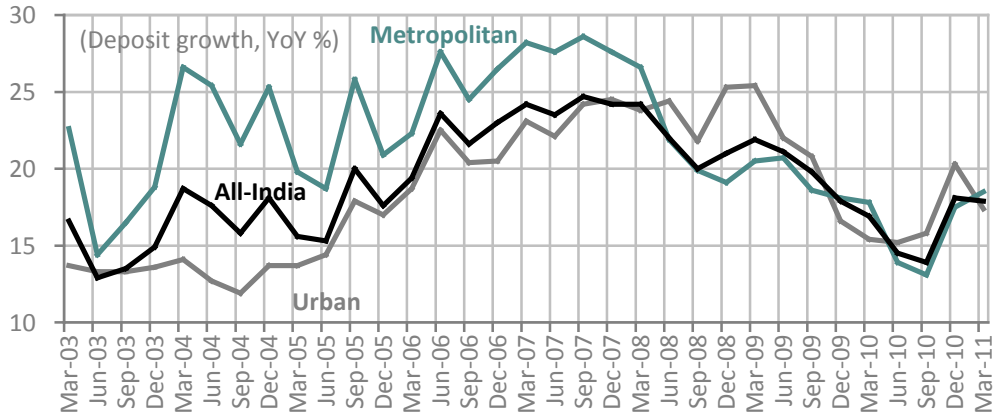


Source: CMIE, RBI, World Bank, IIFL Research

- Rural and semi-urban credit and deposit growth has historically been slower than overall credit growth as agriculture (which has a lower growth trajectory relative to industry and services) is the biggest driver of economic activity in rural areas. It is interesting to note that rural credit and deposit growth actually accelerated during the financial crisis, highlighting the relatively insular nature of India's economy.
- Over the past couple of years, the gap has narrowed significantly. However, this was driven by a strong 26% YoY growth in nominal Agri GDP in FY11 (on top of 17% growth in FY10) and will reverse once growth normalises.

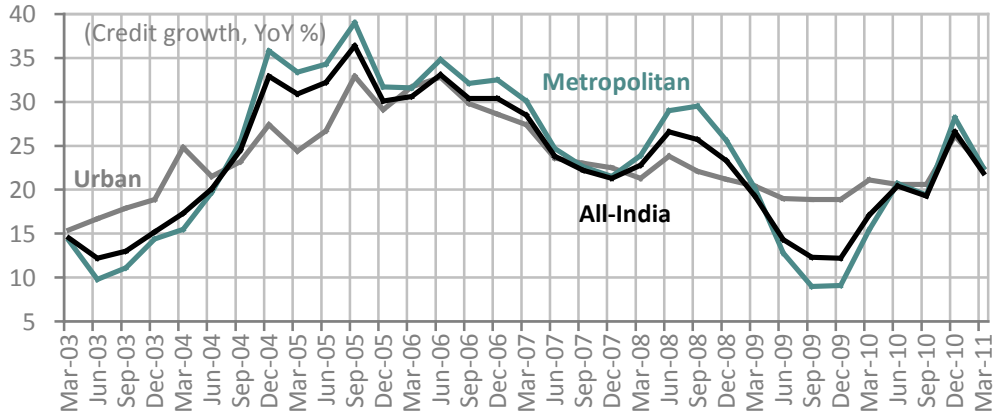
Geographic distribution of credit

Chart 4.13: Urban areas have generally seen stronger deposit growth



Source: CMIE, RBI, World Bank, IIFL Research

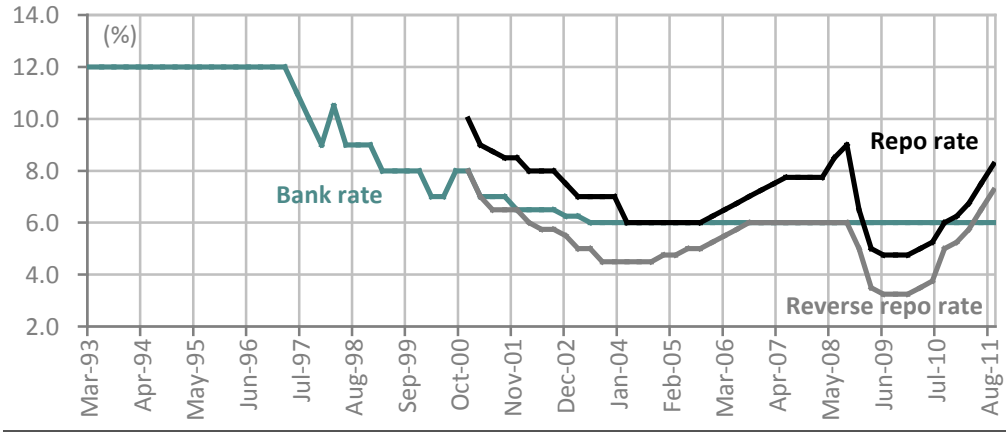
Chart 4.14: Metros dragged down overall credit growth in 2009



Source: CMIE, RBI, World Bank, IIFL Research

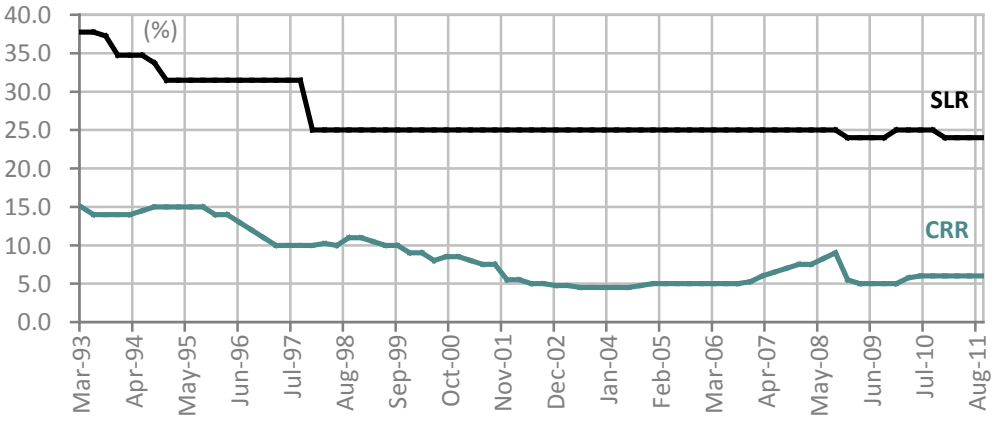
- The predominance of large corporate loans in metropolitan areas and the strong capex cycle for much of the last decade meant that credit growth was the strongest in the metropolitan regions relative to other regions. However, the gap has closed in recent quarters as the capex cycle has struggled to recover.
- Credit growth in metropolitan regions declined sharply during the financial crisis, dragging overall credit growth lower. On the other hand, credit growth in urban and rural areas increased or remained stable. This again highlights the relatively insular nature of India's economy.

Chart 4.15: Policy rates have structurally come down...



Source: CMIE, RBI, World Bank, IIFL Research

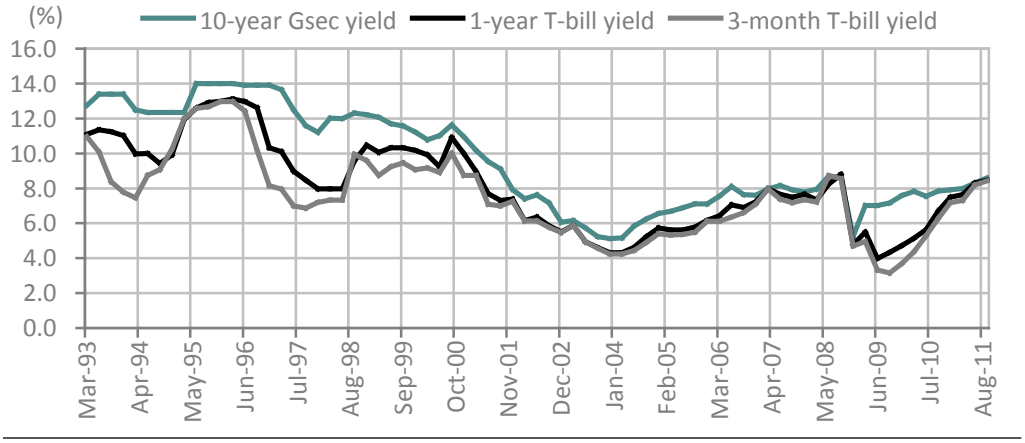
Chart 4.16: ...as have reserve ratios for the banking system



Source: CMIE, RBI, World Bank, IIFL Research

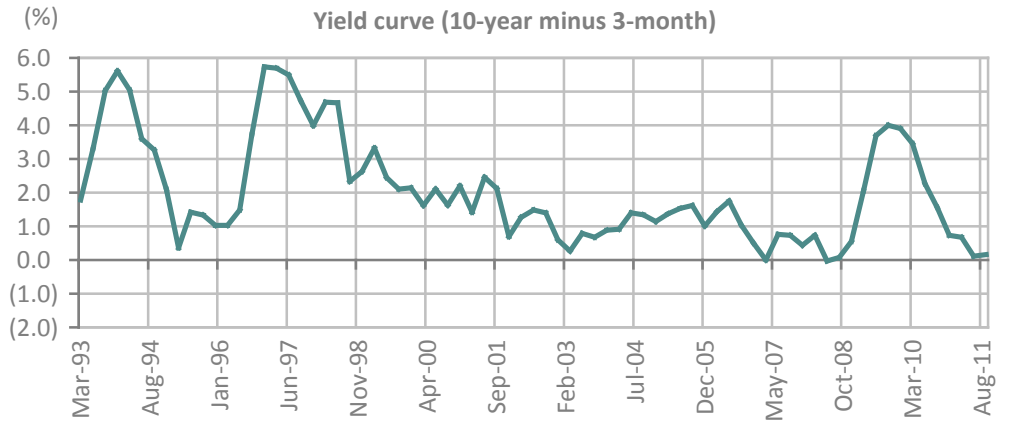
- Policy rates in India have structurally come down from the double-digit level of the 1990s, as inflation, despite the recent pick up, has been ~200bps lower in the 2000s relative to the 1990s. There has also been a shift in monetary policy tools with bank rate being replaced by the repo rate and liquidity adjustment facility.
- Firstly, the decline in SLR reflects lower fiscal deficit for both the central and state governments in the past decade, relative to the 1990s. It also reflects the lower dependence on the banking system for financing the deficit, as other sources like insurance companies, mutual funds and even FIIs, have emerged.

Chart 4.17: Bond yields too have structurally come off



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.18: Yield curve has generally flattened in the 2000s

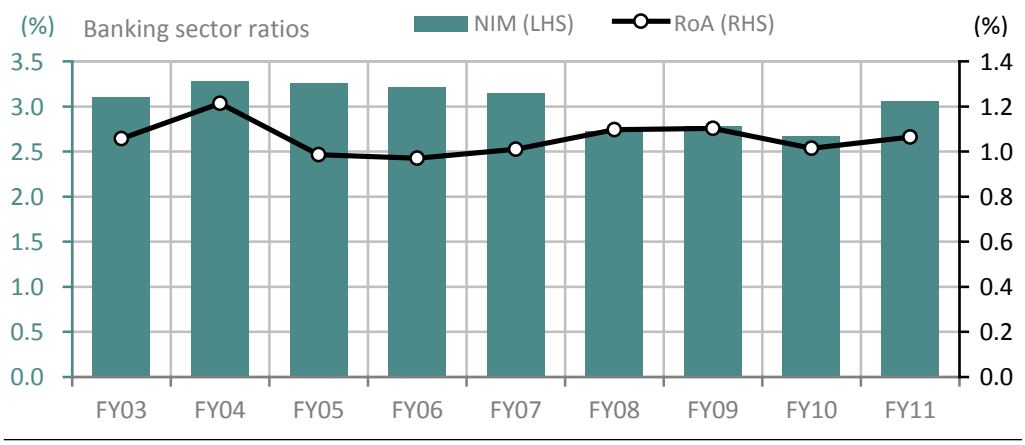


Source: CMIE, RBI, World Bank, IIFL Research

- Long-bond yields have similarly declined, mirroring the decline in inflation and lower policy rates. However, due to persistently high fiscal deficit and inflation, they have broken out of their 6-8% band that was maintained for most of the last decade.
- The yield curve has generally been flatter in the 2000s than the previous decade, reflecting the deepening of money markets as more participants have entered the market (though it is still dominated by banks) and volatility in growth and inflation has reduced.

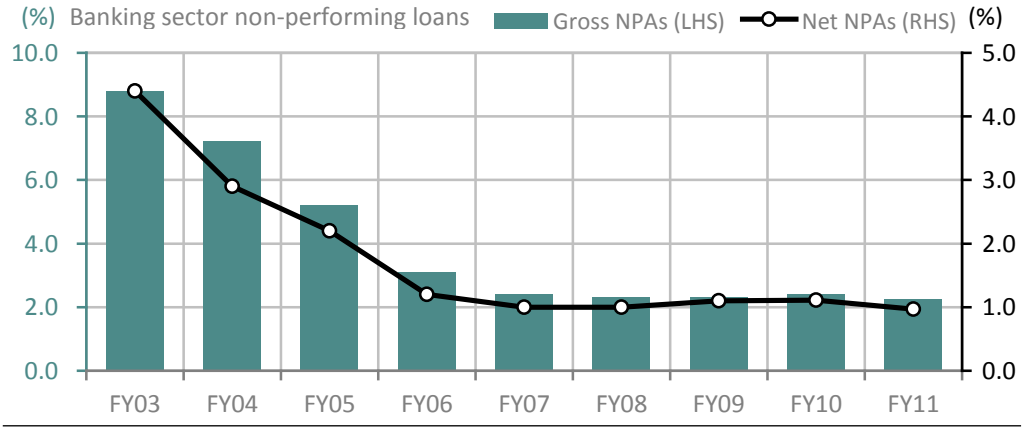
Banking system ratios

Chart 4.19: Banking sector margins have remained largely stable



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.20: Non-performing loans have structurally come down

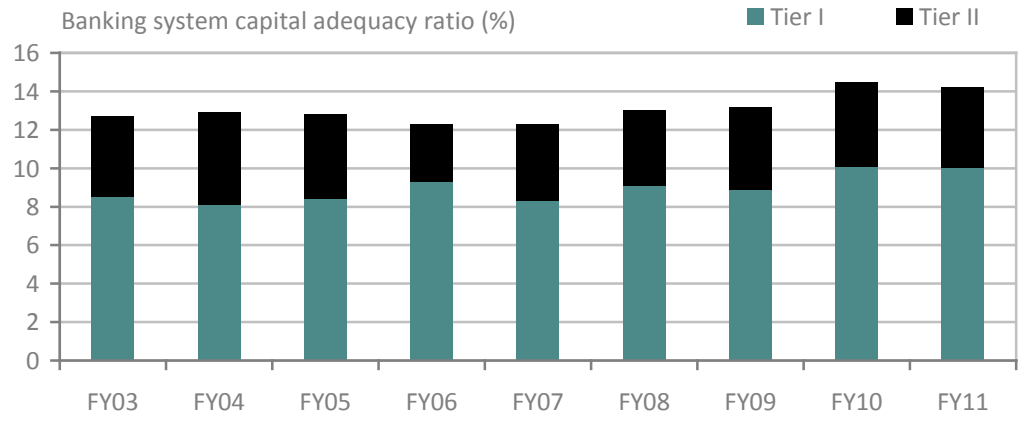


Source: CMIE, RBI, World Bank, IIFL Research

- Banking sector margins and gross return ratios have remained largely stable across the credit and interest rate cycles of the past few years, and this reflects the strong pricing power enjoyed by the sector.
- Non-performing loans (NPLs) have structurally declined from the early part of the last decade. Even during the financial crisis in 2009, non-performing loans increased only marginally, reflecting the counter-cyclical policies of the RBI as well as the large-scale restructured loans.

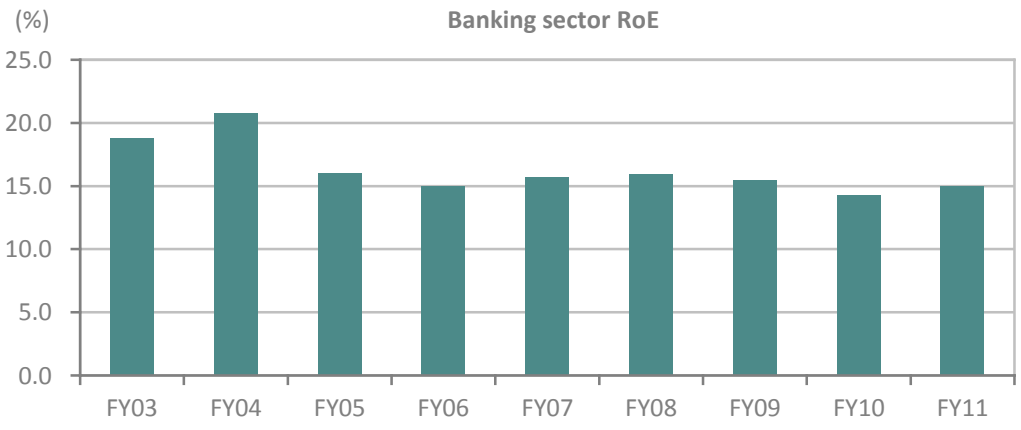
Banking system ratios

Chart 4.21: Capital adequacy has increased in recent years



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.22: RoE has, however, declined from early part of 2000s

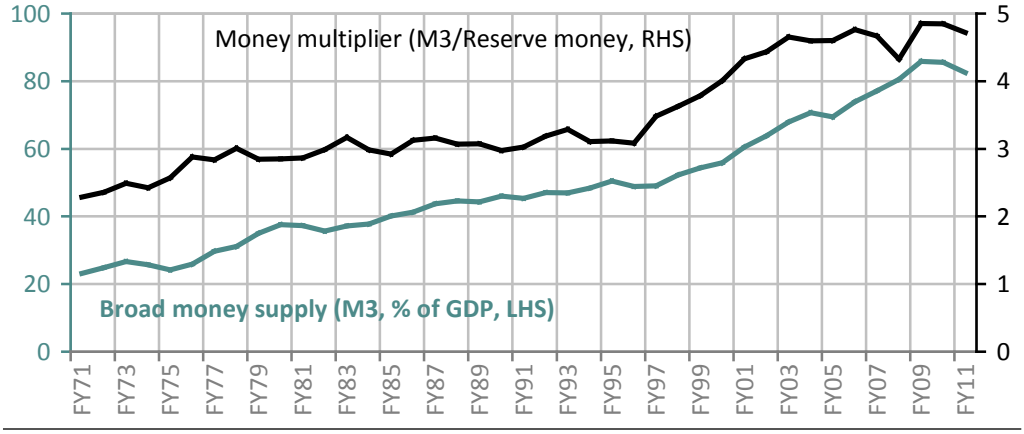


Source: CMIE, RBI, World Bank, IIFL Research

- Capital adequacy for the banking sector is strong and has actually increased following the financial crisis. As against a mandated minimum Tier I capital ratio of 6%, the ratio for the banking system is currently at 10%.
- Banking sector RoE declined from the highs of FY03-04, reflecting the higher treasury gains in those years. After that period, however, system-level RoE has remained remarkably steady at ~15%, reflecting the strong capital discipline and pricing power for the sector.

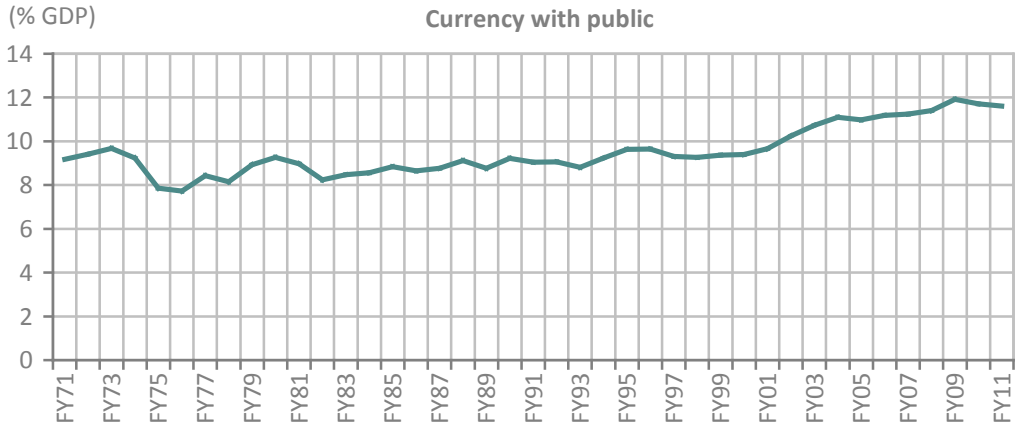
Money supply

Chart 4.23: M3 has consistently grown above nominal GDP growth



Source: CMIE, RBI, World Bank, IIFL Research

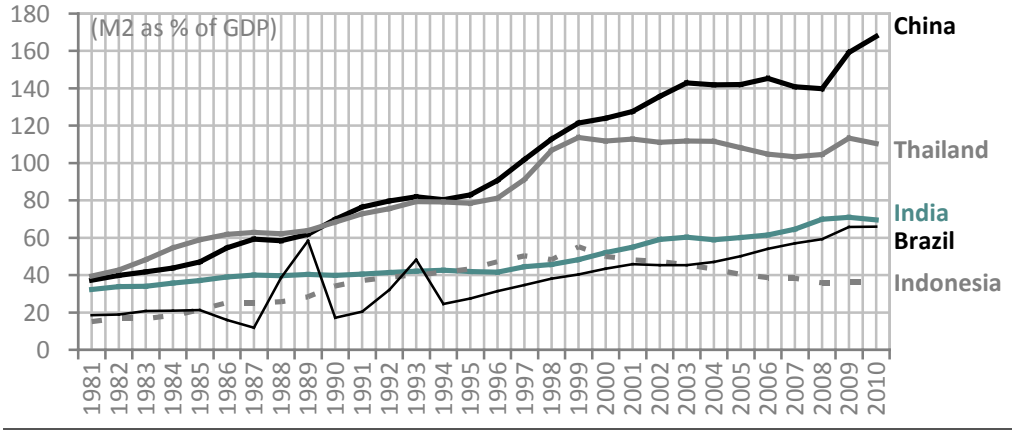
Chart 4.24: Public's currency holdings have actually increased



Source: CMIE, RBI, World Bank, IIFL Research

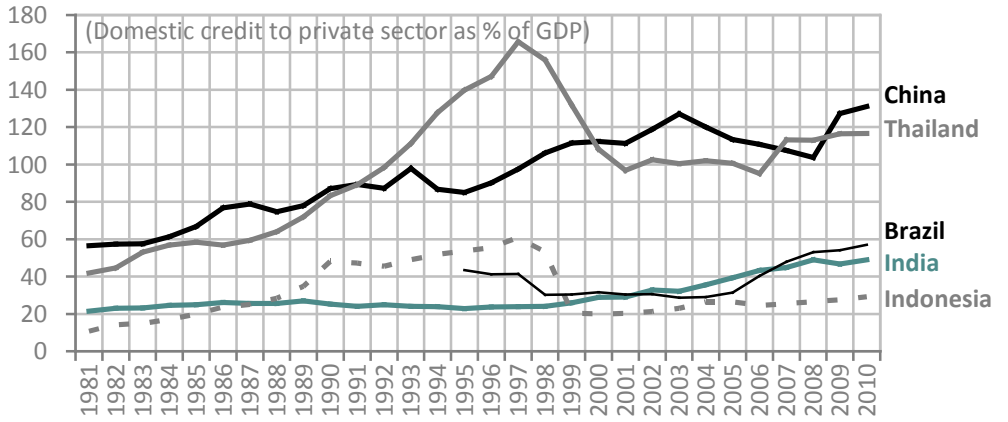
- Money supply growth, which has generally been faster than nominal GDP growth, has decelerated over the past couple of years, despite revival in economic growth and high inflation. This is because credit off-take has remained 'relatively' sluggish due to an anaemic capex cycle, the biggest cyclical driver of credit.
- Despite increased banking penetration and lower inflation, currency holdings of households have increased over the past three decades. This is counter-intuitive and reflects the sharper decline in nominal interest rates relative to inflation and sharper acceleration in the rural economy that is still relatively under-banked.

Chart 4.25: Money supply in India is broadly similar to EMs...



Source: CMIE, RBI, World Bank, IIFL Research

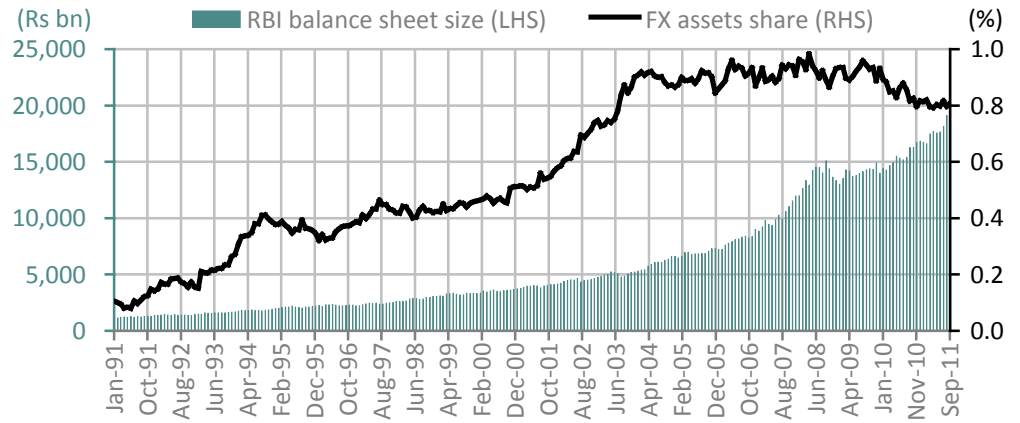
Chart 4.26: ...as is private sector credit



Source: CMIE, RBI, World Bank, IIFL Research

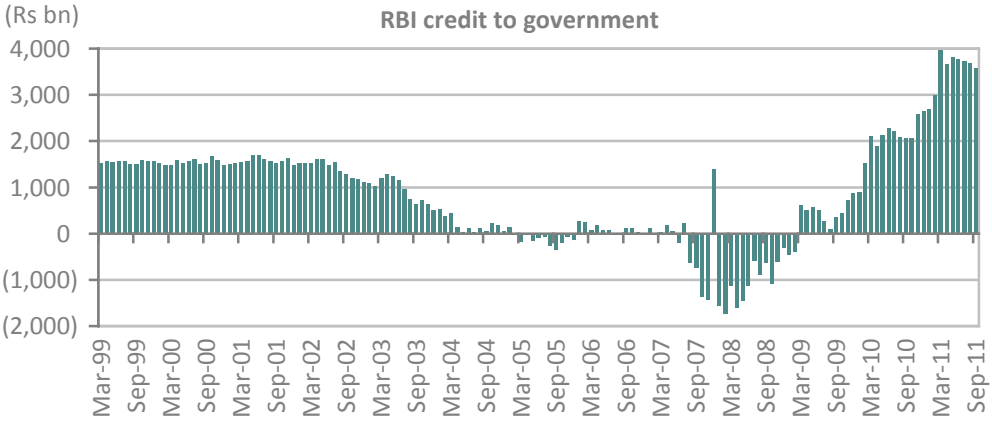
- Relative to GDP, both money supply and private sector credit are broadly similar to other EMs with China and Thailand being outliers.
- However, the gap between money supply and private sector, a rough indicator of credit to the government (due to government deficits), is much larger in India relative to other EMs and reflects the persistently high fiscal deficits in India.

Chart 4.27: Composition of RBI's balance sheet is changing



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.28: Domestic assets are rising as deficits get monetised

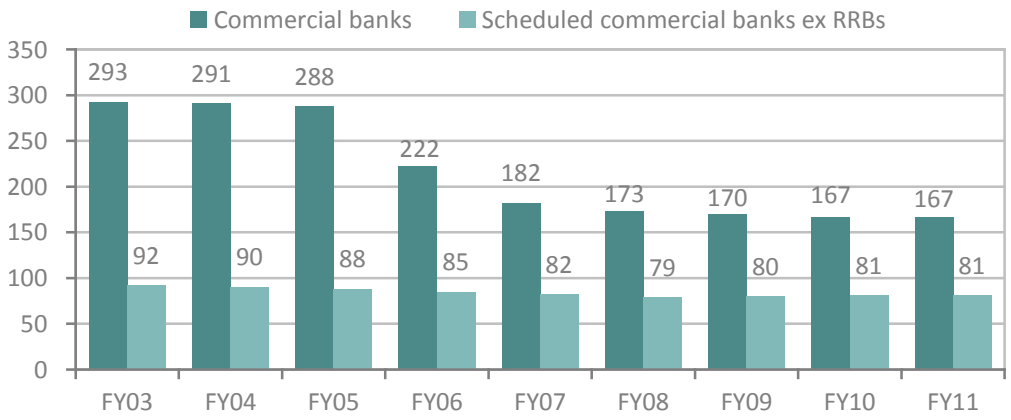


Source: CMIE, RBI, World Bank, IIFL Research

- Share of foreign currency assets in RBI's balance sheet increased steadily during the 1990s and early part of the 2000s as monetisation of deficits had stopped and RBI built FX reserves. Interestingly, in 2008-09, when balance sheet size of other central banks was expanding due to liquidity injection, RBI's balance sheet actually contracted for the same reason - liquidity injection.
- However, this trend is reversing as FX reserves have remained constant for the past three years and RBI's holding of government securities has increased due to large OMOs (de facto monetisation of deficits) and persistent liquidity injection.

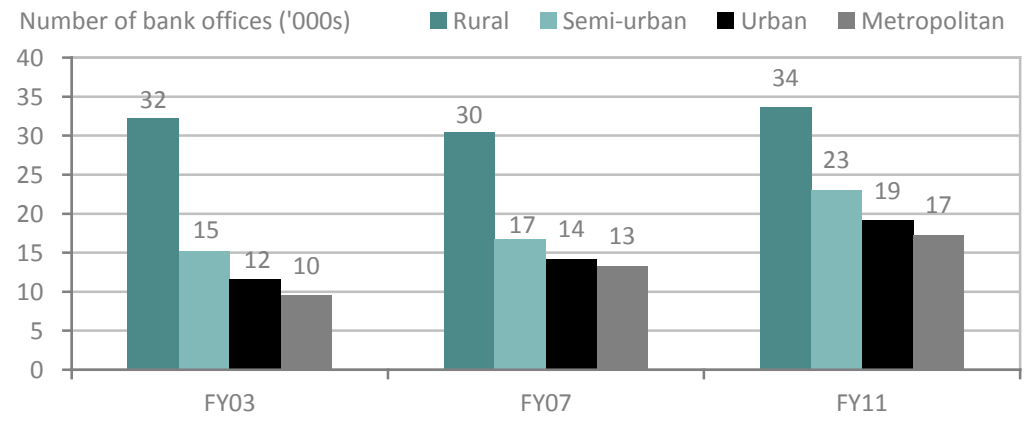
Banking industry growth

Chart 4.29: Number of banks has declined in the past decade



Source: CMIE, RBI, World Bank, IIFL Research

Chart 4.30: Bank offices have increased except in rural regions



Source: CMIE, RBI, World Bank, IIFL Research

- The number of banks has declined sharply over the past eight years. The biggest decline has been due to merger of regional rural banks (down from 196 in FY03 to 82 in FY11) with their sponsor banks. However, even otherwise, the number of banks has declined by 10%, reflecting strong M&A over the past few years.
- Despite the emphasis on financial inclusion, commercial bank offices in rural regions increased by a modest 5% over the past eight years. In contrast, commercial bank offices in metropolitan areas increased more than 60%. In absolute terms, the growth of bank offices was maximum in semi-urban areas.

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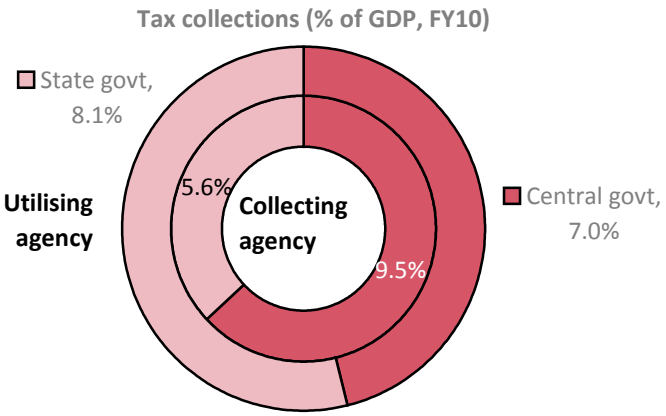
Public finance

Before the advent of the financial crisis of 2009, India's public finances were healthy. Aggregate fiscal deficit had more than halved and state governments had revenue surpluses. But the financial crisis dealt a severe blow to government finances. Three years after the crisis, central government finances still continue to be under strain, whereas state government finances have improved considerably. We believe that the fiscal stimulus should have been completely rolled back in FY11 as growth had recovered, but it has still not been rolled back. The burden of subsidies continues to rise and slowdown in growth would mean tax revenue will decelerate, making fiscal consolidation an uphill task for the central government.

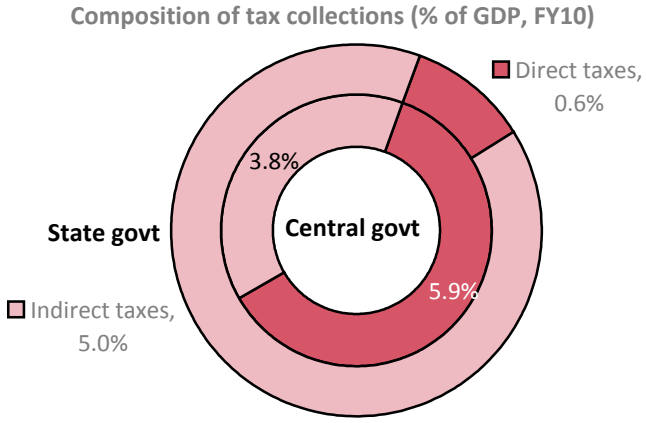
Nonetheless, relative to GDP, public debt continues to moderate due to strong nominal growth in recent years. Another noteworthy feature of public finances in India is the divergence in the levy and utilisation of taxes between the central and state governments. This partially is the reason for the opposition to the Goods and Services tax from the states. The central government collects 2/3rd of tax revenue and it devolves over a quarter of this to the states that thus have access to more than half of the total tax revenue. Thus, the state governments have limited flexibility over their total tax revenue and the proposed GST would reduce that flexibility further. Arguably, a uniform pan-India GST would boost productivity. Nevertheless, the concerns of the states are not unjustified. Clearly, the states and the central government need to arrive at a consensus and given the hostile political environment currently, near-term visibility on achieving this appears dim.

Chart 5.1: Stark divergence is seen in collection & utilisation of taxes



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

Chart 5.2: Central government collects majority of direct tax revenue



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

- There is significant divergence between collection and utilisation of taxes, due to differing constitutional powers with regard to levying of taxes. Thus, the central government collects 2/3rd of taxes but devolves more than 1/4th to the state governments, which end up using more than 50% of the tax revenue collected.
- However, the divergence in collection of tax revenue also means that while the central government has significant flexibility in modifying its fiscal policy, the state governments have limited flexibility.

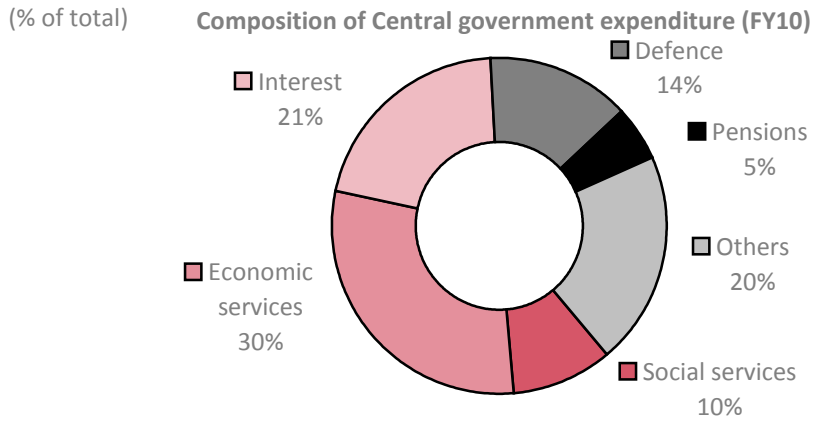
Chart 5.3: Sharing of tax revenues has a redistributive objective

FY11-15 (%)	Share of all central govt tax collections ex-service tax	Share of service tax	Share in GDP
Andhra Pradesh	6.9	7.0	8.6
Assam	3.6	3.7	1.7
Bihar	10.9	11.1	3.1
Gujarat	3.0	3.1	7.8
Haryana	1.0	1.1	3.9
Jharkhand	2.8	2.8	1.9
Karnataka	4.3	4.4	6.1
Kerala	2.3	2.4	4.2
Madhya Pradesh	7.1	7.2	3.9
Maharashtra	5.2	5.3	16.4
Orissa	4.8	4.9	2.9
Punjab	1.4	1.4	3.6
Rajasthan	5.9	5.9	4.6
Tamil Nadu	5.0	5.0	8.4
Uttar Pradesh	19.7	20.0	9.4
West Bengal	7.3	7.4	7.3

Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

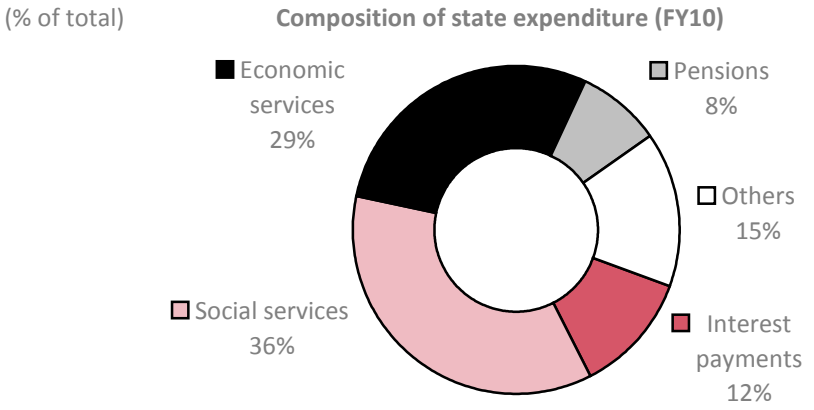
- Devolvement of central government tax revenue to the states is a quinquennial exercise under the constitution; the Finance Commission recommends the share for each state and the proportion of tax revenue to be devolved. The 13th Finance Commission, which is the latest, recommended the division of tax revenue for FY11-15.
- As can be seen in the table above, the division of taxes is not proportionate to each state's output and thus the richer states have a lower share of taxes relative to the more backward states.

Chart 5.4: Just 40% of central govt expenditure is developmental



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

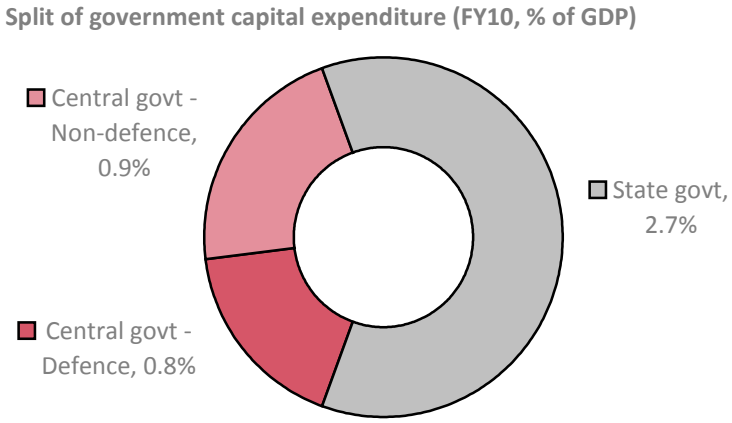
Chart 5.5: Over 50% of state govt expenditure is developmental



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

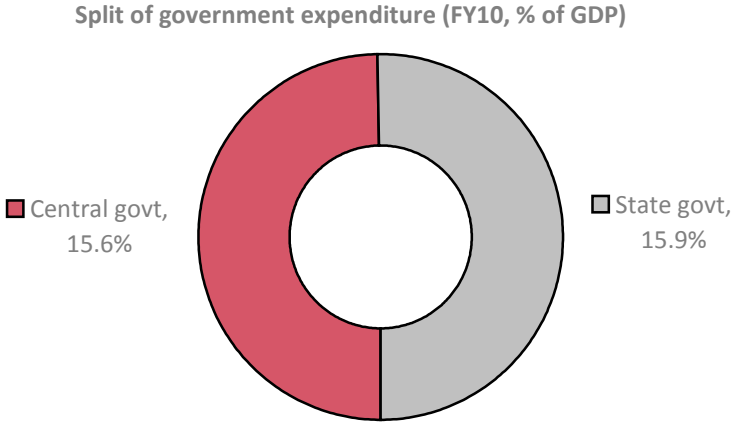
- The differing responsibilities of the central and state governments under the constitution are partly reflected in the different composition of their respective expenditures: central government expenditure is less focused on 'growth' or 'development' than state government expenditure.
- Hence, from a growth perspective, state government expenditure is much more critical than that of the central government.

Chart 5.6: State govt capex is 50% more than the central govt



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

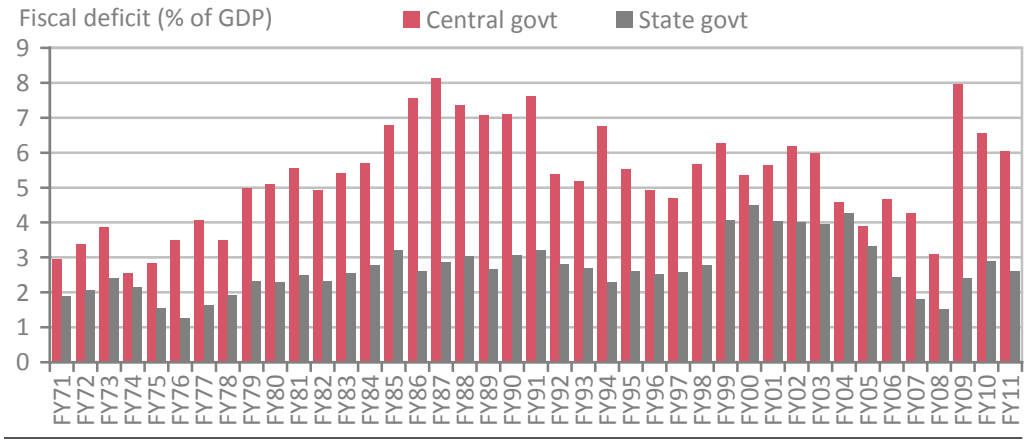
Chart 5.7: State govt expenditure is slightly more than central govt



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

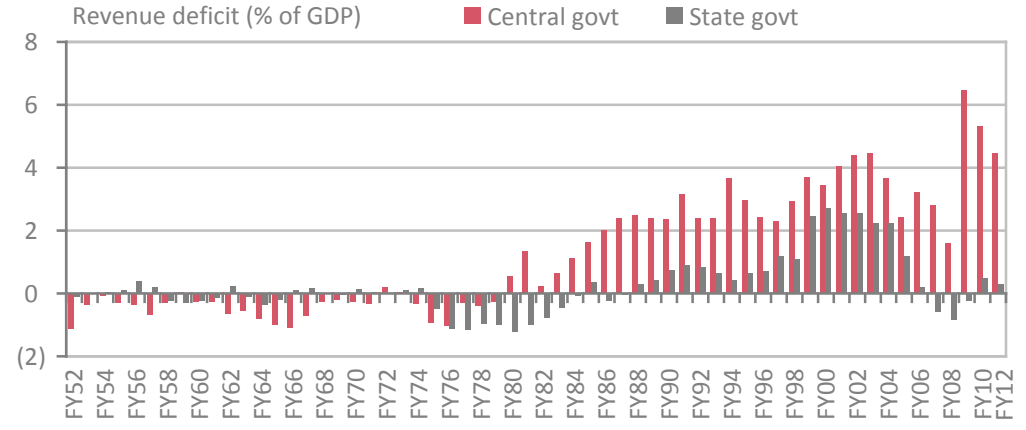
- The difference in composition of the central and state government expenditure also extends to capex as central government capex is less than half that of the state governments. Hence, even from a capex-cycle perspective, state governments are much more important than the central government.
- Even as composition of expenditure differs, aggregate state government expenditure is slightly more than that of the central government. However, state governments have lower flexibility in raising tax revenue, as the central government collects majority of the tax revenue.

Chart 5.8: Current central govt fiscal deficit is above long-term avg



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

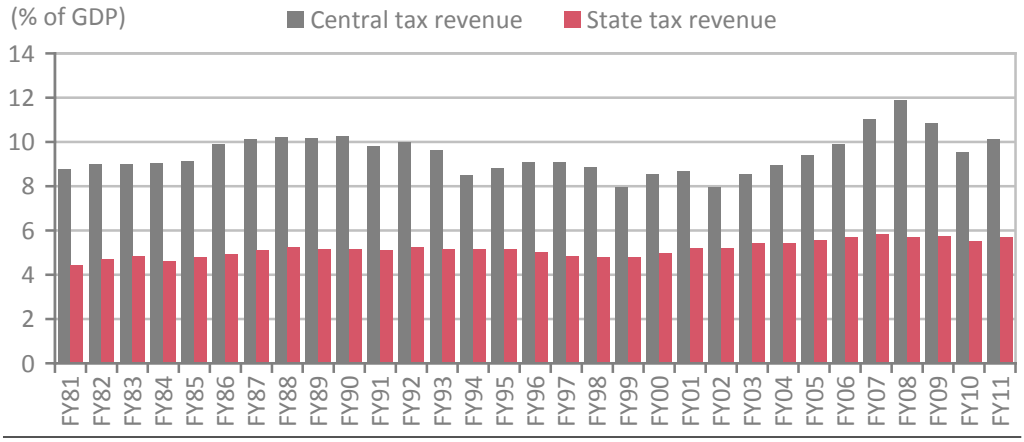
Chart 5.9: Central government revenue deficit is close to record highs



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

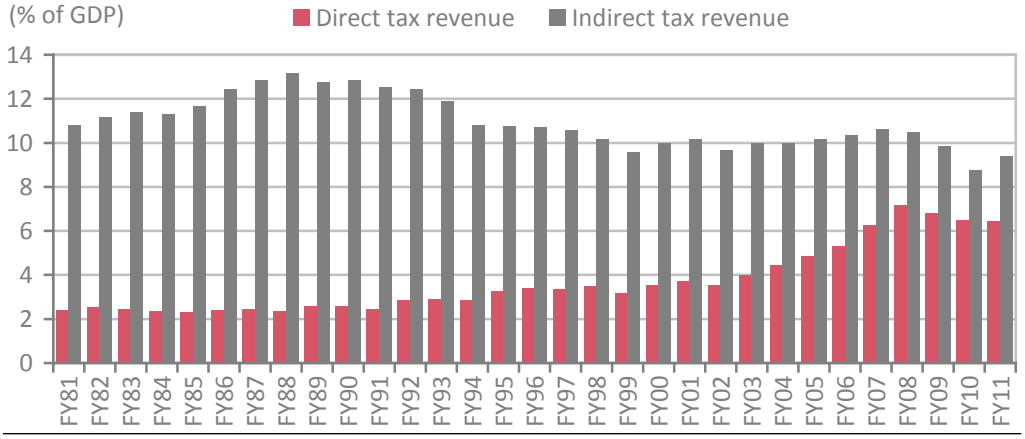
- The current (FY12ii) fiscal deficit of ~5.5% for the central government and ~2.5% for state governments is broadly in line with their 40-year average. Further, despite the sharp improvement in fiscal deficit towards the middle of the last decade, average deficit in the 2000s was similar to that in the 1990s.
- For the central as well as state governments, revenue deficit is a recent phenomenon as both had consistent revenue surplus until the early 1980s. Currently, state governments have modest revenue deficits, whereas for the central government, it is large and drags down overall savings in the economy.

Chart 5.10: Central govt's taxes are more cyclical than state govts



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

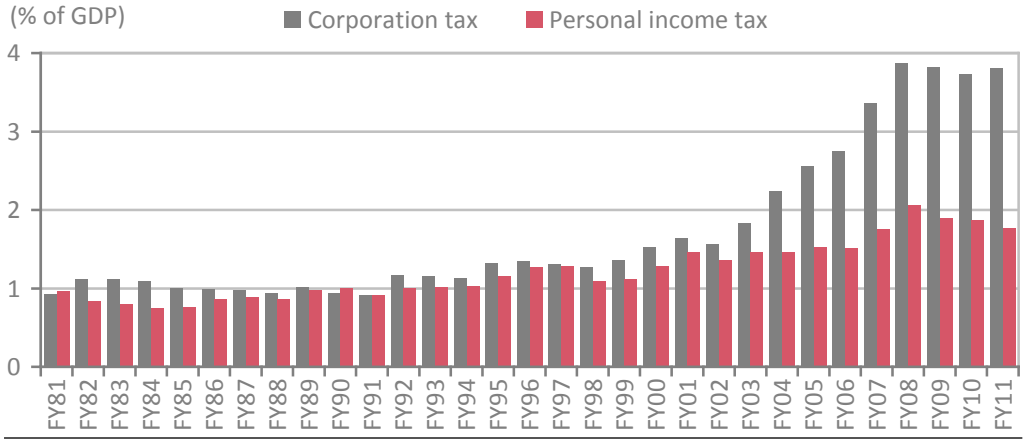
Chart 5.11: Indirect tax revenue has declined gradually



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

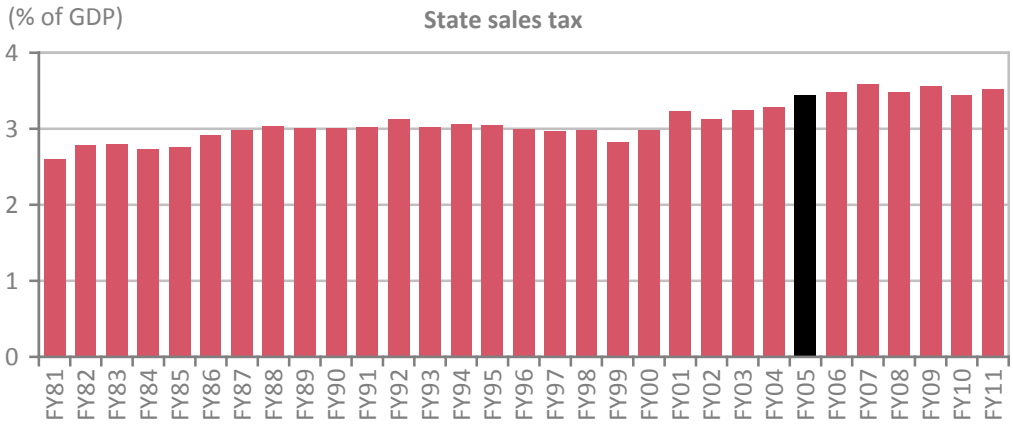
- Aggregate tax revenue is significantly higher than the levels of the 1980s and 1990s and its composition has changed. The share of indirect tax revenue has come down significantly, with a concomitant increase in the share of direct taxes.
- The decline in indirect taxes has come almost entirely from lower excise and customs collections (though offset slightly by service tax), which is a reflection of the opening up of the economy from the early 1990s and the consequent lowering of import duties and across-the-board reduction in excise duties.

Chart 5.12: Corporate taxes have driven the spurt in direct tax



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

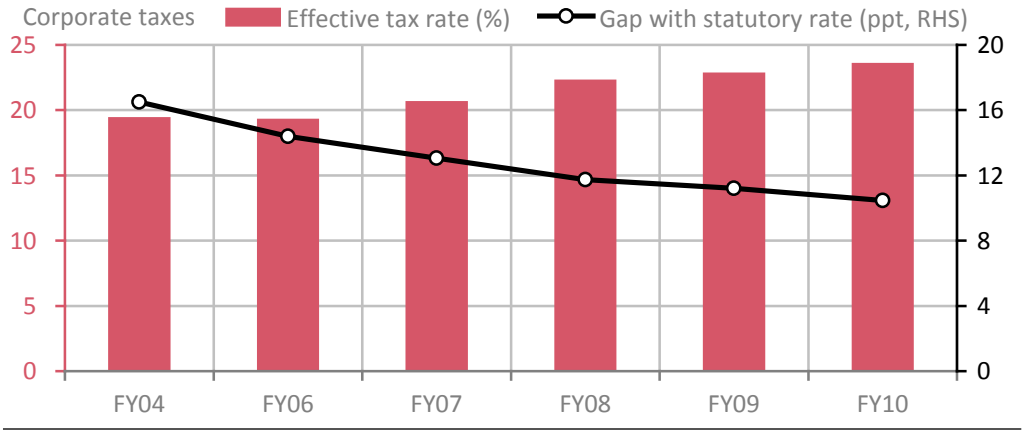
Chart 5.13: State sales tax revenue has been remarkably steady



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

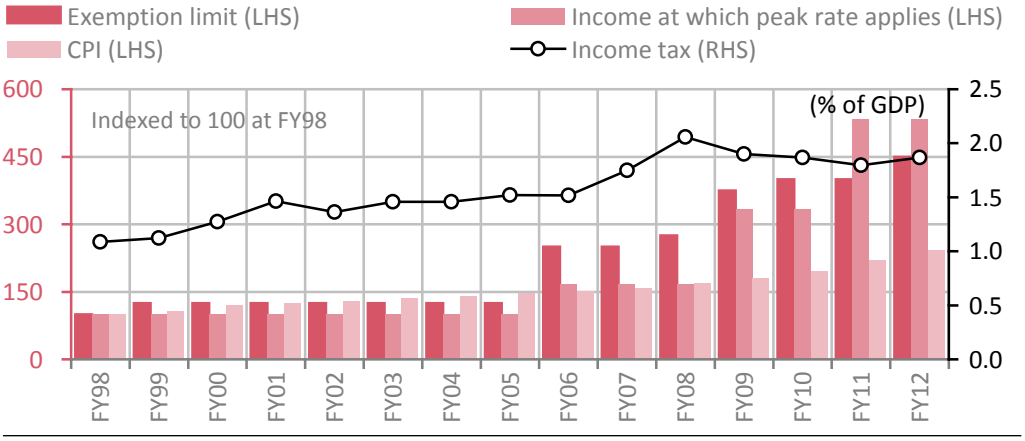
- The spurt in direct tax collections is largely due to robust corporate tax collections, which have almost quadrupled to 4% of GDP currently. Personal income tax collections also increased, but by a lesser quantum. Corporate tax is now the largest source of tax for the government, accounting for more than a third of tax collections of the central government and a fourth of total tax collections.
- It is interesting to note that despite the introduction of VAT at the state level from FY06 onwards, state sales tax collections have not shown any noticeable change in their trend.

Chart 5.14: Corporate tax compliance has increased significantly



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

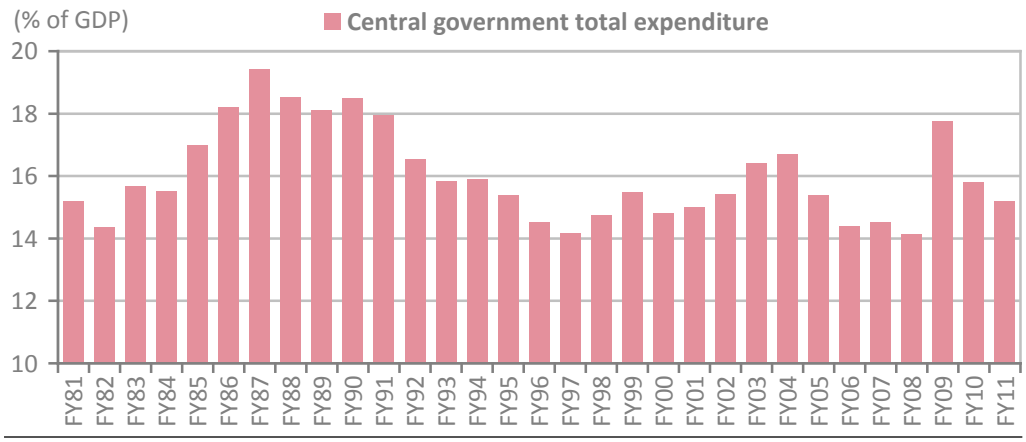
Chart 5.15: Income tax slabs have widened sharply in past 3 years



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

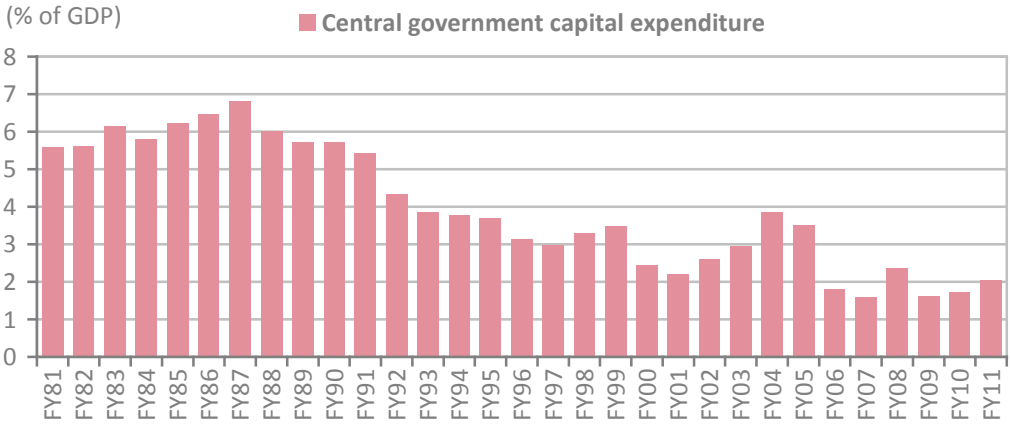
- The gap between the statutory corporate tax rate and effective tax rate has come down sharply over the past decade, driving the strong buoyancy in corporate taxes. However, further narrowing of that gap will be incremental and thus growth in corporate tax collections will be significantly slower relative to FY03-08.
- Income tax collections have moderated over the past few years largely due to a sharp increase in the tax slab at which the highest tax rate kicks in. In contrast, during FY98-08, when tax slabs increased in line with inflation, personal income tax collections doubled relative to GDP.

Chart 5.16: Central govt expenditure is in line with its average



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

Chart 5.17: However, share of capital expenditure has declined sharply

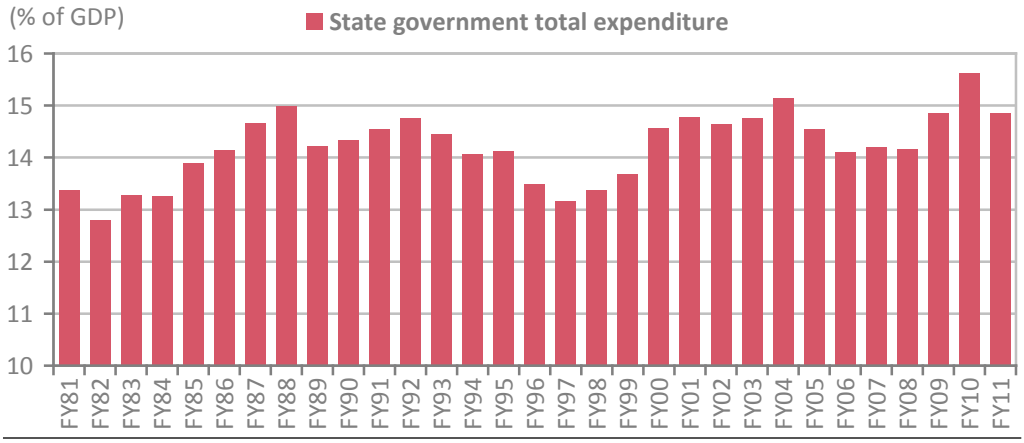


Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

- Aggregate central government expenditure is significantly lower than that in the 1980s and is in line with the long-term average. However, the quality of the expenditure is weak as capital expenditure has declined to almost a third over the past three decades.
- With subsidies and entitlement schemes continuing to rise, this trend of deteriorating quality of central government expenditure is unlikely to change over the next few years.

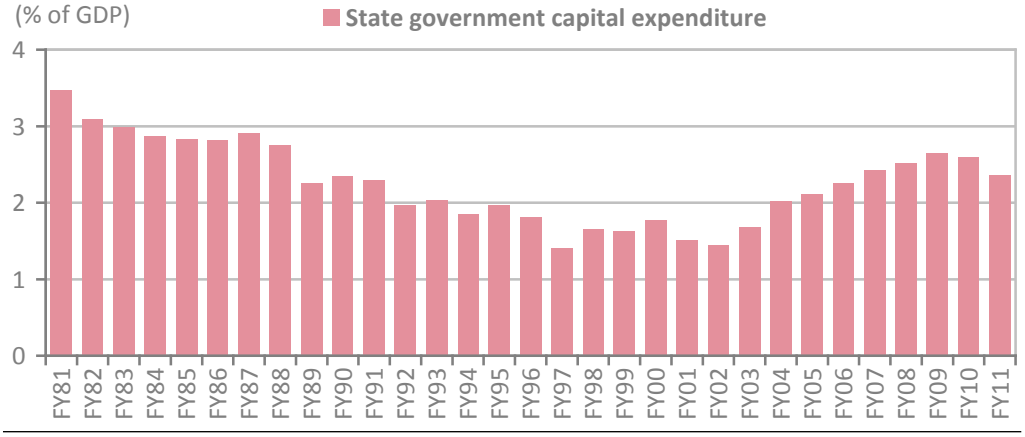
Government expenditure

Chart 5.18: State govt expenditure is close to its all-time high



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

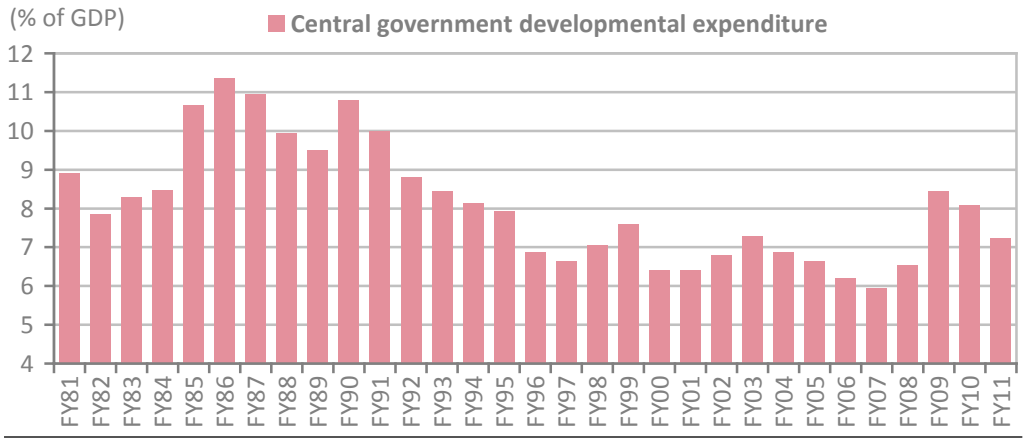
Chart 5.19: However, capital expenditure is in line with its average



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

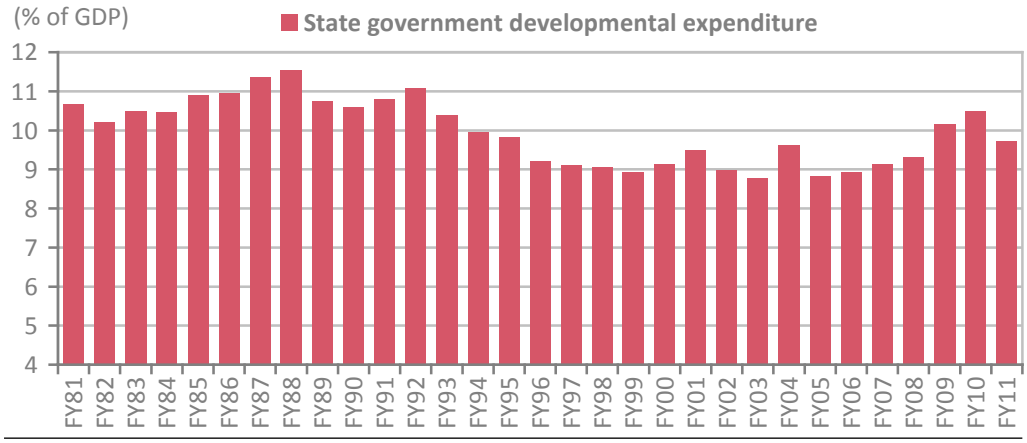
- For state governments, aggregate expenditure has increased in recent years and is close to its all-time high. Further, although capital expenditure is lower than that in the 1980s, it has increased in recent years and is modestly above the long-term average.
- Thus, from a growth perspective, state governments with better financial health and mix of expenditure have the ability to aid growth in the near term even as the central government's fiscal policy would need to tighten to rein in high fiscal deficits.

Chart 5.20: Mix of central government expenditure has deteriorated



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

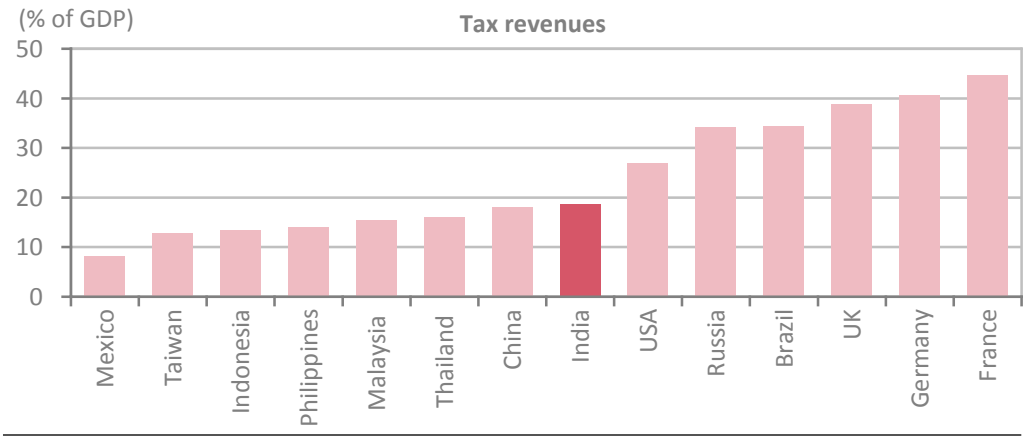
Chart 5.21: State govt's development expenditure is in line with avg



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

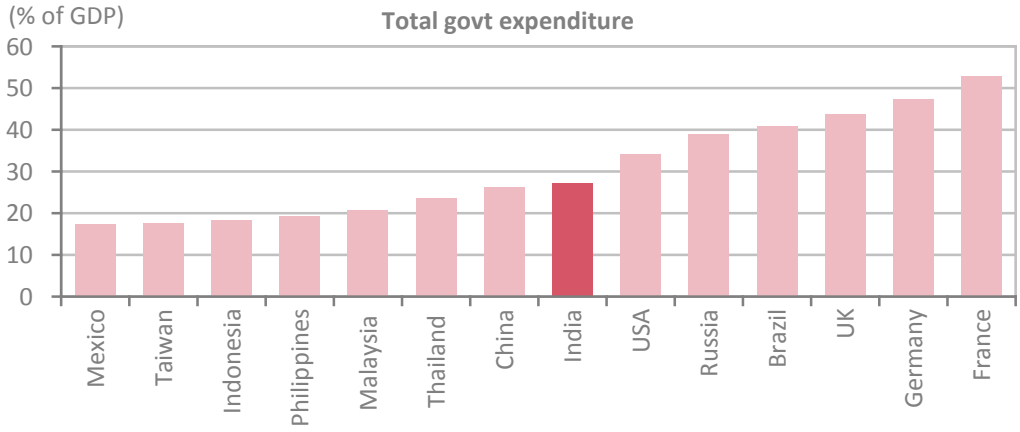
- Decline in developmental expenditure over the past few years from 8-10% of GDP in the 1980s to 6-8% of GDP now is further evidence of deterioration in the quality of central government expenditure. For state governments, developmental expenditure has increased from the lows of 1990s and is in line with its average.
- Unlike in the late 1990s, when the Pay Commission set back state finances significantly, in the current scenario, the financial crisis and burgeoning subsidies have strained central government finances. Given that elections will be held over the next couple of years, the task of fiscal consolidation is challenging.

Chart 5.22: India's total tax revenue is higher than Asian countries



Source: CMIE, RBI, Govt of India, Finance Commission, Heritage Foundation, IIFL Research

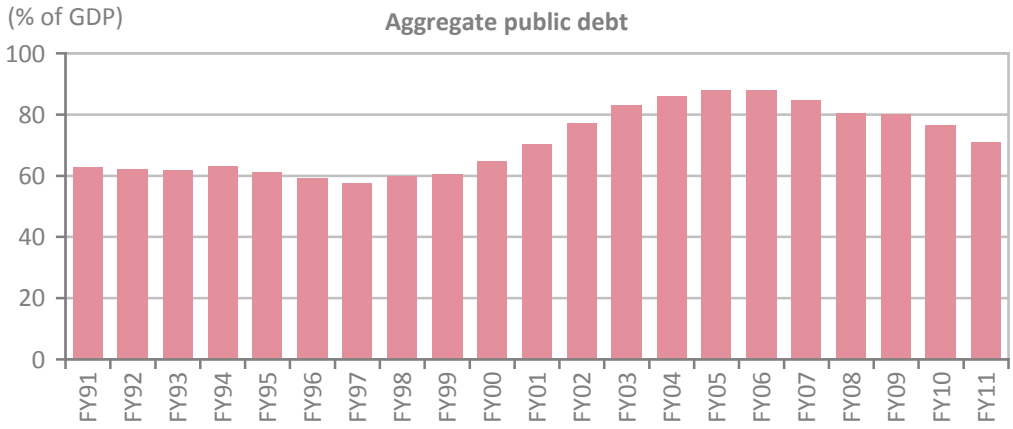
Chart 5.23: Govt expenditure too is higher than Asian countries



Source: CMIE, RBI, Govt of India, Finance Commission, Heritage Foundation, IIFL Research

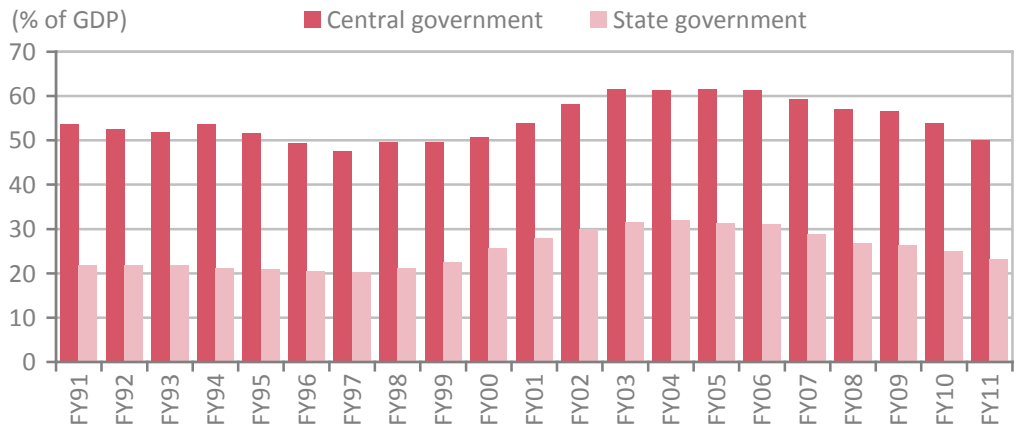
- For India, aggregate tax revenue as well as expenditure are higher than most Asian countries but sharply lower than most developed countries. Brazil and Russia, however, are an exception, with much higher tax revenue and government expenditure as compared to India.
- Given demands on expenditure from additional entitlement schemes and limited room for buoyancy in direct taxes, we believe an increase in tax rates is inevitable in the upcoming budget.

Chart 5.24: Aggregate public debt remains reasonable at ~70%



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

Chart 5.25: State govt public debt is less than half of central govt



Source: CMIE, RBI, Govt of India, Finance Commission, IIFL Research

- Aggregate public debt for India is high at ~70%, but is declining despite the current high fiscal deficit, reflecting the strong nominal growth and relatively modest nominal interest rates.
- Over the past couple of decades, India has rarely had primary budget surplus and despite this, public debt in India has moderated. This is because nominal interest rates have been consistently lower than nominal GDP growth, especially in the 2000s. Thus, even if the central government does not cut its fiscal deficit from the current 5-6%, its debt would continue to decline relative to GDP.

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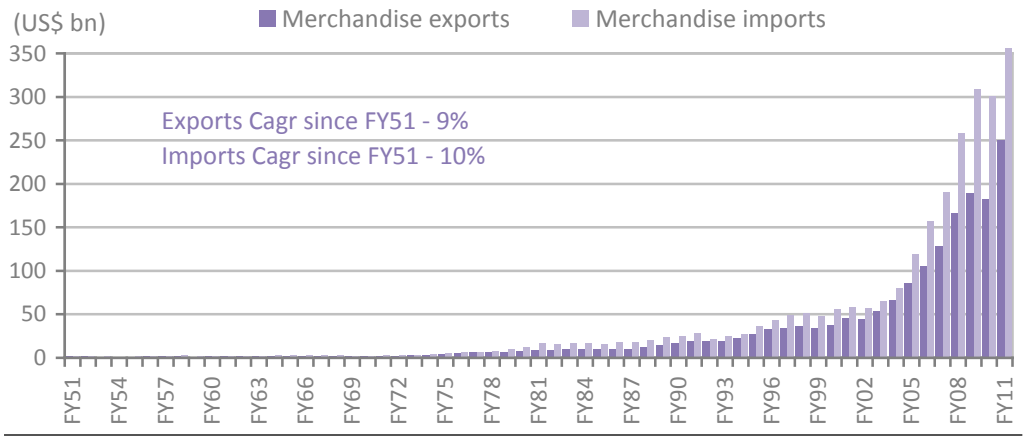
External sector

India's foreign trade picked up speed in the 1990s, post-liberalisation. The country's share in world trade quadrupled to 2% currently from just 0.5% until the early 1990s. India's foreign trade at 46% as a share of GDP is only modestly lower than China's 55%. However, since India is largely a domestically-driven economy, it imports more than it exports. Hence it runs a large current account deficit, quite in contrast to China, which has a current account surplus. Nevertheless, India's exports have grown phenomenally over the past few years despite appreciation of the rupee for most of the last decade. Further, the composition of exports has also changed significantly. The rising share of manufactured exports suggests the rising competitiveness of the Indian industry in the global context.

India's vulnerability to external shocks has increased following the financial crisis. Current account deficit has almost doubled from the pre-crisis levels and FDI has declined. Stagnant FX reserves mean that the cover of imports and overall external payments has reduced significantly. Further external debt has increased and now exceeds FX reserves. Nevertheless, in absolute terms, FX reserves still remain large and external debt is low relative to GDP, suggesting that there is no cause for alarm. However, as the sharp depreciation in the INR shows, vulnerability to adverse global developments is high.

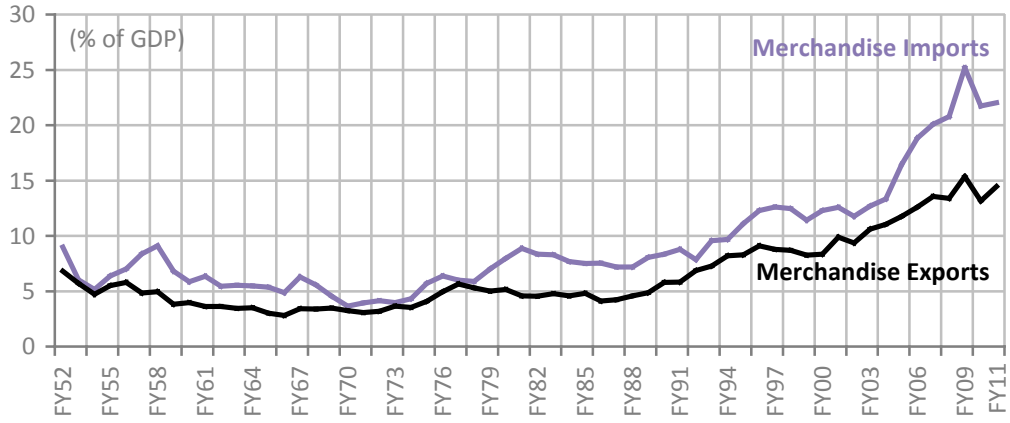
Merchandise trade

Chart 6.1: Export and import growth accelerated >5ppt since 1990s



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.2: Merchandise trade has risen significantly since the 1990s

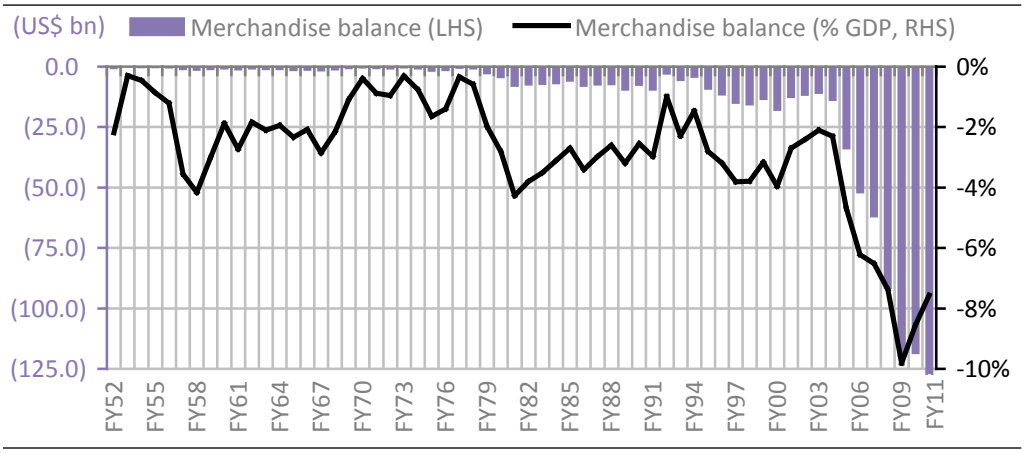


Source: CMIE, World Bank, RBI, IIFL Research

- Liberalisation of the economy in the early 1990s marked a structural shift in India's foreign trade. Exports and imports registered 7-8% Cagr until the 1990s, and accelerated to 14% in the two decades thereafter.
- Imports have thus more than tripled from 5-10% of GDP in the first four decades since independence to over 20% of GDP currently. On the other hand, exports, have tripled since the 1990s to ~15% of GDP currently. However, as domestic growth was stronger relative to global growth in the last decade, imports grew faster than exports.

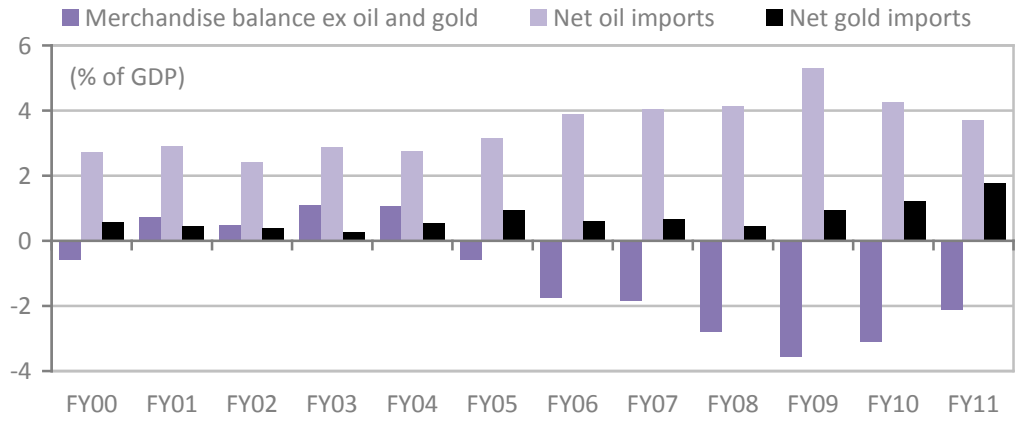
Merchandise trade

Chart 6.3: Merchandise deficit has widened sharply in recent years



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.4: Widening of trade deficit is not just due to oil and gold

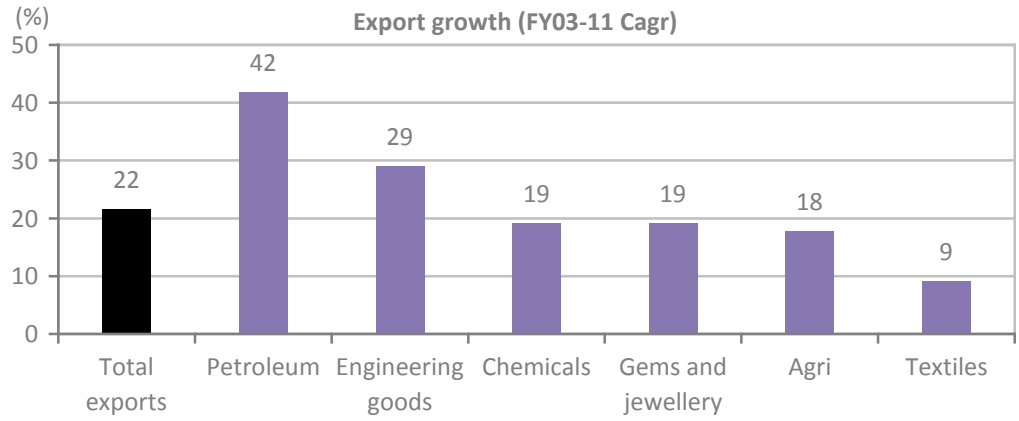


Source: CMIE, World Bank, RBI, IIFL Research

- Merchandise deficit was contained (2-4% of GDP) throughout the 1990s and early part of the 2000s as both exports and imports rose in sync. However, the sharp acceleration in growth since then has resulted in a sharp widening of trade deficit to 10% of GDP in FY09, which has corrected to 8% of GDP currently.
- The widening of trade deficit is structural and is not just due to gold or oil price inflation of the last decade. Thus, excluding net oil and gold imports, India's merchandise trade, which was in surplus in the first half of the last decade, turned into deficit of more than 2% of GDP by FY11.

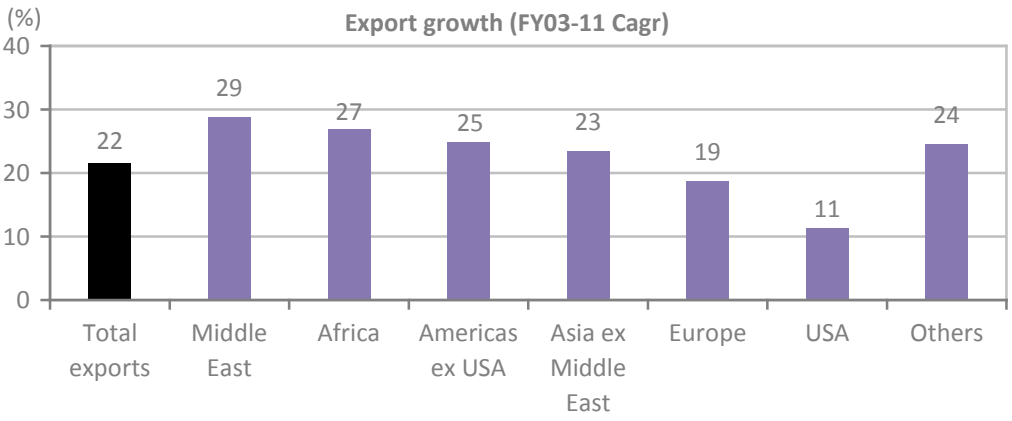
Composition of trade

Chart 6.5: Petroleum exports have grown the fastest



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.6: Exports to Middle East, Africa have seen fastest growth

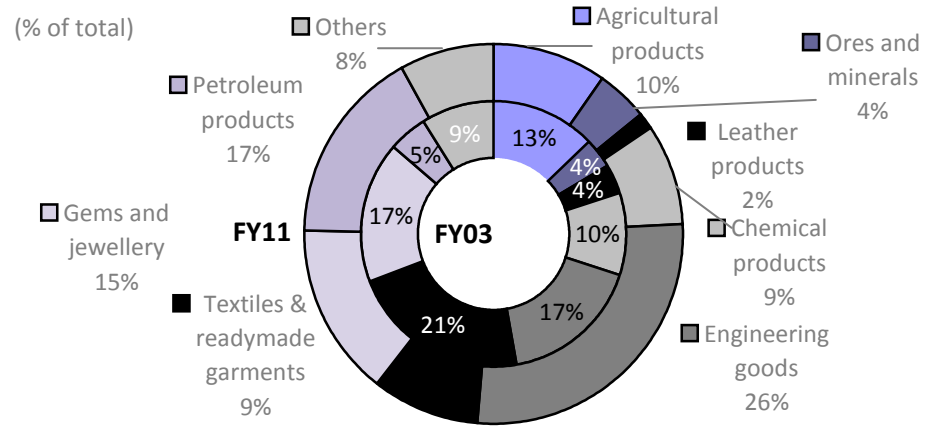


Source: CMIE, World Bank, RBI, IIFL Research

- India's export growth has shown remarkable diversification and strength over the past few years both category wise and geography wise.
- Further, this shift has happened in a decade when the currency has appreciated; this highlights the rising competitiveness of India's manufacturing sector in a global context. Hence it is not surprising that despite sluggish global growth environment, India's exports rebounded with 40% growth in FY11 after a 4% decline in FY10.

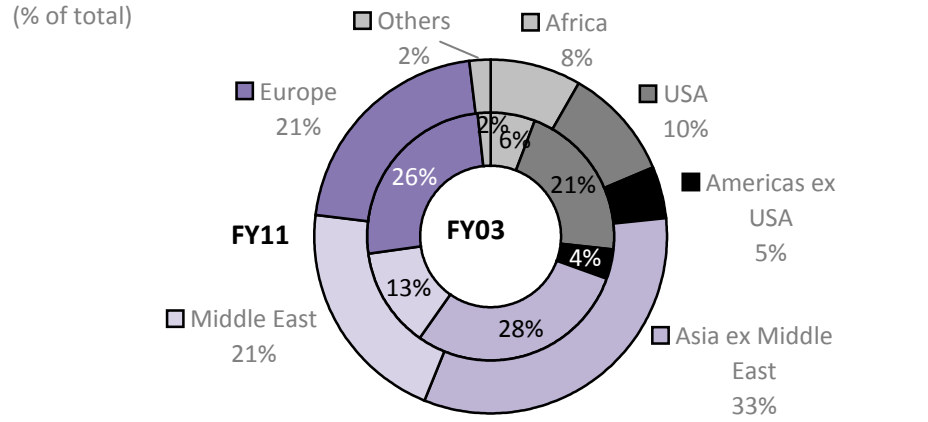
Composition of trade

Chart 6.7: Composition of India's exports has changed significantly



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.8: Asia is India's biggest export market

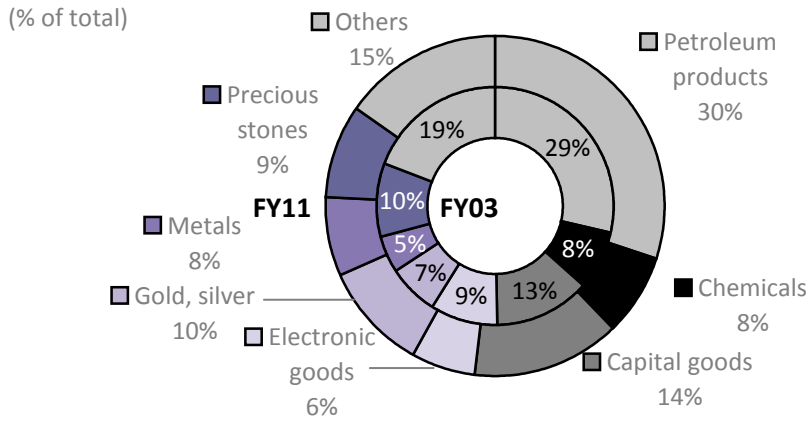


Source: CMIE, World Bank, RBI, IIFL Research

- Consequent to the strong growth in manufactured exports, the share of traditional exports such as textiles and gems and jewellery in overall exports has declined to under 25% currently from almost 40% in FY03. Engineering goods have become the largest export category, followed by petroleum products.
- Even geographically, the composition of exports has changed significantly. The share of the US is down from more than 20% in FY03 to 10% in FY11 and share of Europe too has declined. Asia, which accounted for 41% of exports in FY03, now accounts for 55% of exports.

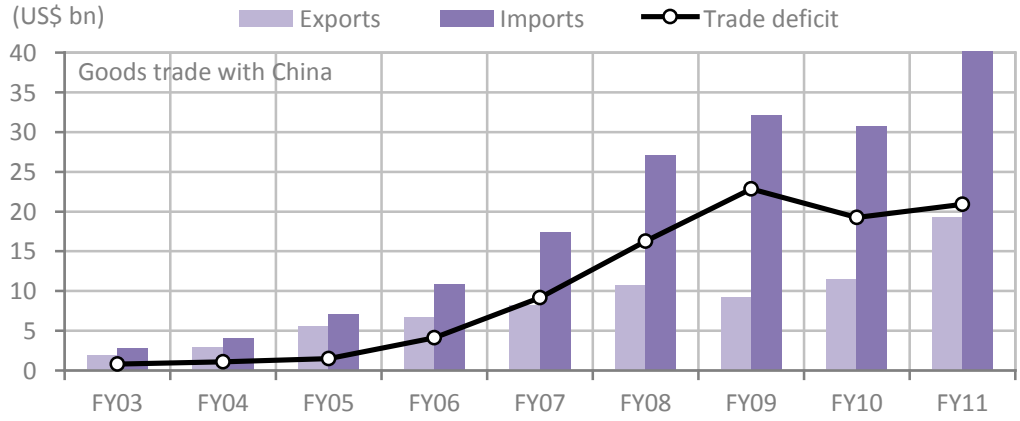
Composition of trade

Chart 6.9: Composition of imports has not changed materially



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.10: Trade with China has increased significantly

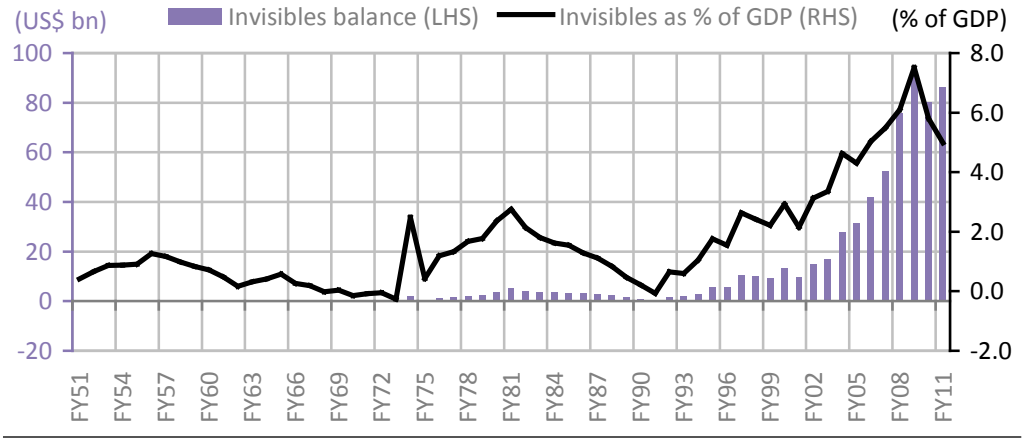


Source: CMIE, World Bank, RBI, IIFL Research

- Sectorally, the composition of imports has not changed materially. Despite increase in domestic gas and crude production, oil still accounts for 30% of imports. Although share of gold imports has increased, that of electronic goods imports has declined.
- Despite exports to China doubling over the past four years (FY07-11), trade deficit with China has increased sharply. As of FY11, India's trade deficit with China was 1.2% of GDP or 45% of total current account deficit. The recent sharp depreciation of INR will help reverse some of the increase in trade deficit.

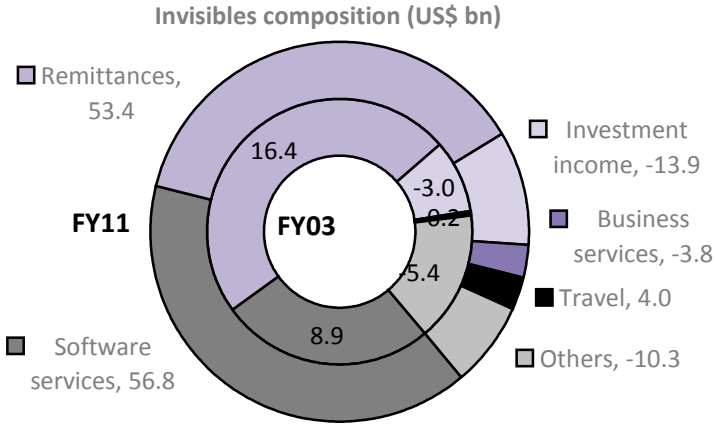
Invisibles

Chart 6.11: Similar to goods, invisibles receipts took off in 1990s



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.12: Remittances and IT are the biggest source of invisibles

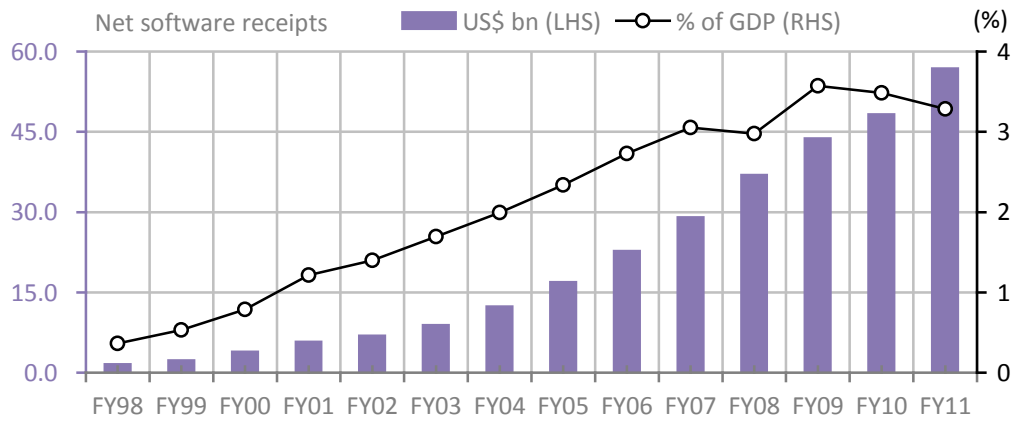


Source: CMIE, World Bank, RBI, IIFL Research

- The surge in invisibles has majorly offset the widening merchandise deficit, thus containing the current account deficit. Merchandise deficit increased more than 350bps between FY2000 and FY11, whereas current account deficit widened just 150bps because invisibles surplus rose 200bps.
- Software services and remittances are the biggest component of invisibles receipts. At its peak in FY09, invisibles surplus was more than 7% of GDP (as against just 1-2% during 1950s to early 1990s). However, invisibles surplus has since declined to 5% of GDP in FY11, reflecting the drag from non-IT services.

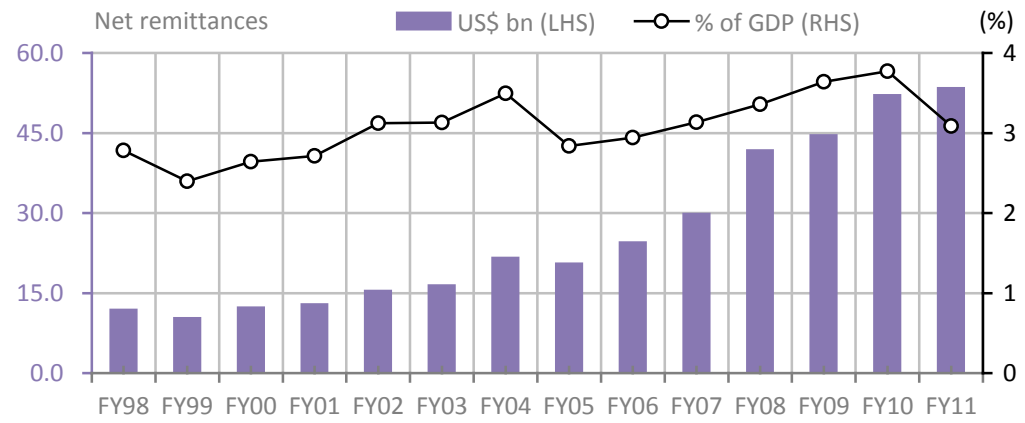
Invisibles

Chart 6.13: IT exports registered ~25% Cagr over the past decade



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.14: Remittances exceed US$50bn per year currently

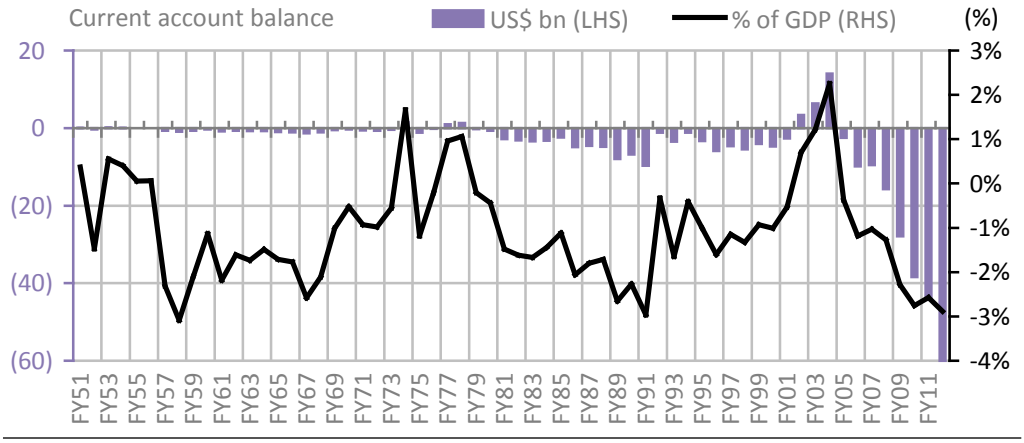


Source: CMIE, World Bank, RBI, IIFL Research

- IT services and remittances are the biggest components of invisibles surplus (more than US$50bn each). Together, they more than offset the drag from non-IT services and investment expense. India is the largest recipient of remittances globally and these have increased at 15% Cagr over the past decade. Software services, on the other hand, have registered 25% Cagr over the past decade, although from a low base.
- A key medium-term risk for India's external sector balance is the near-stagnancy of remittances over the past couple of years at a quarterly run-rate of US$12bn-13bn.

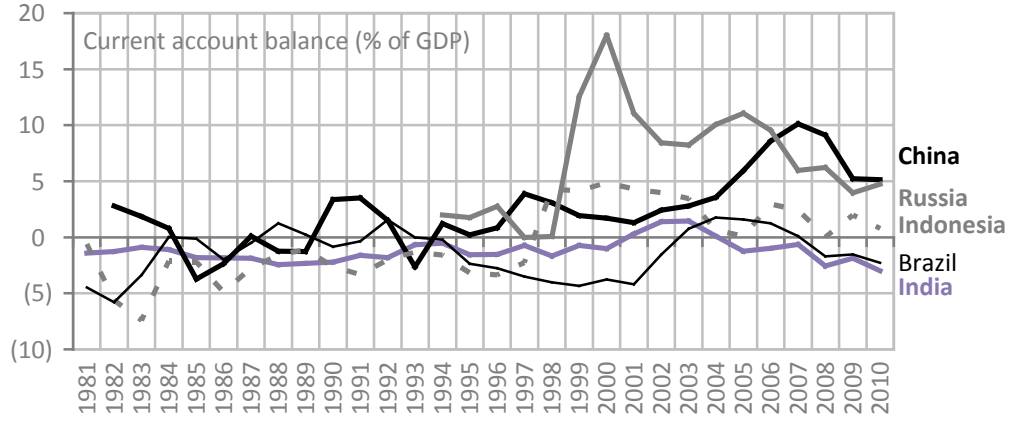
Current account balancce

Chart 6.15: Current account deficit is close to all-time highs



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.16: India's current account gap is highest among large EMs

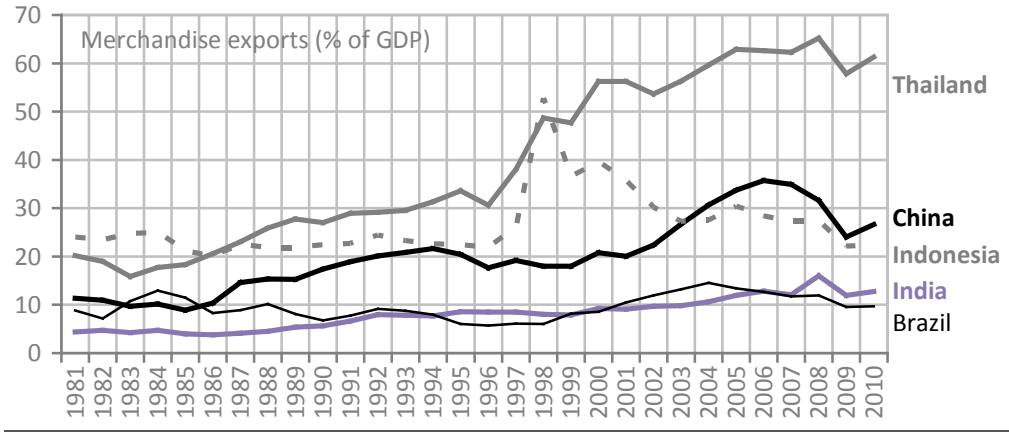


Source: CMIE, World Bank, RBI, IIFL Research

- Post liberalisation, in 1991, India's current account deficit had narrowed significantly, turning into a surplus during FY02-04. However, since then it has widened steadily and at 3% in FY12ii is close to its all-time highs. Even among the EM peers, India the highest current account deficit.
- We have long argued that the large current account deficit and overreliance on portfolio flows in its funding will remain a key medium-term risk for India. However, the sharp depreciation in the INR should help rebalance the current account deficit in the medium term by boosting exports and containing imports.

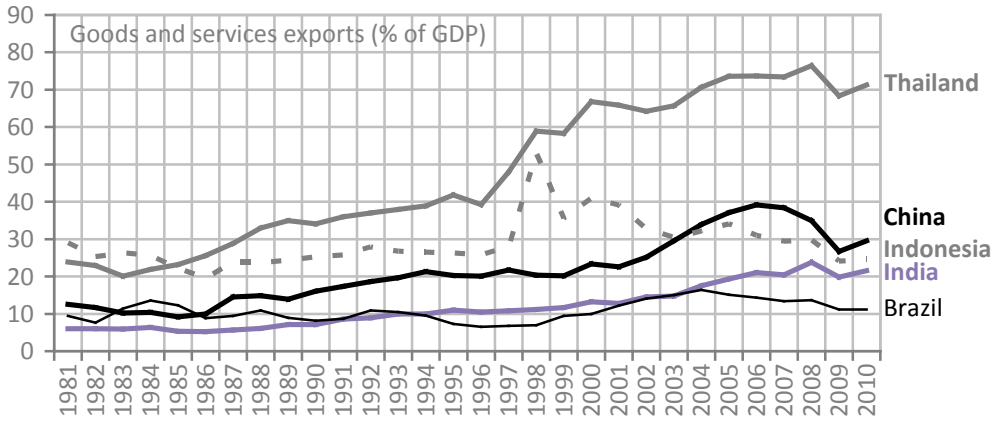
International comparison

Chart 6.17: India's goods exports are less than half of that of China



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.18: Total exports are however only modestly below China's

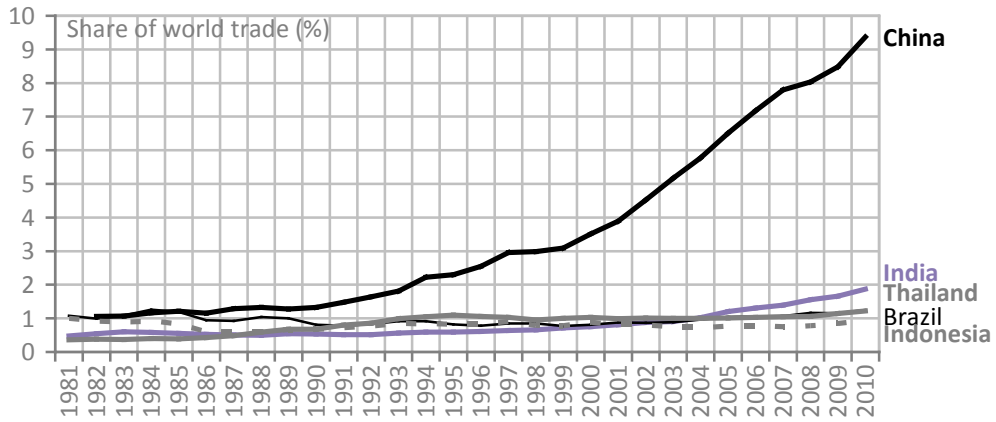


Source: CMIE, World Bank, RBI, IIFL Research

- India's exports are significantly lower than many of its peers, especially China, whose exports are more than 2x that of India, relative to GDP. However, the export gap with other EMs, especially China, narrows significantly, after adding services.
- For China, services exports form just 3% of GDP whereas for India, they form ~9% of GDP. Thus, for China, total exports are 30% of GDP vs. 21% for India, a gap of 9ppt vs. a gap of ~15ppt for goods exports. Relative to GDP, total exports for India are almost 2x that of Brazil.

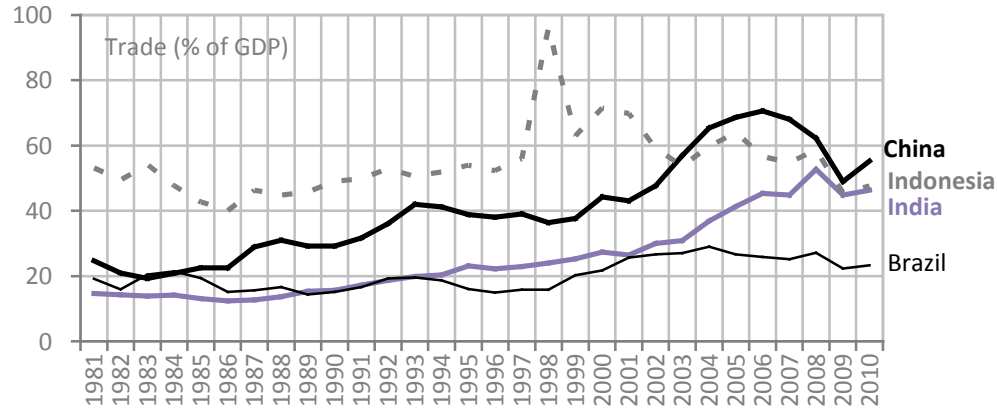
International comparison

Chart 6.19: Share of India in world trade is 2%



Source: CMIE, World Bank, RBI, IIFL Research. Note: Trade includes both goods and services.

Chart 6.20: Relative to GDP, India's total trade is close to China's

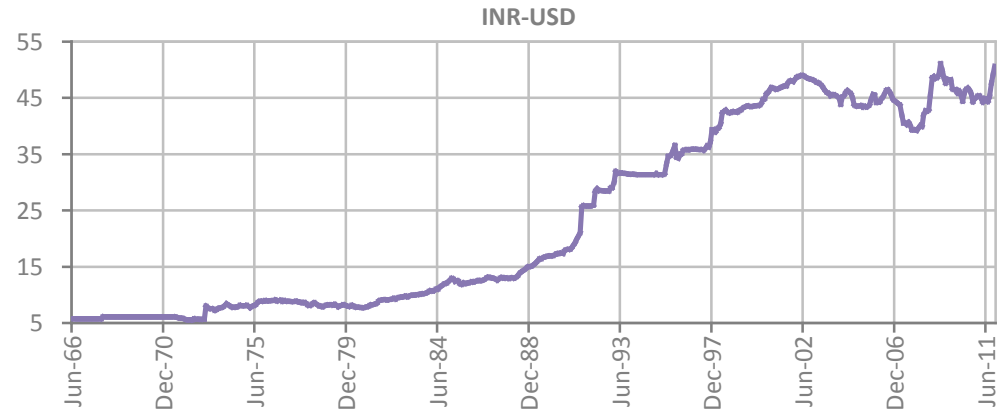


Source: CMIE, World Bank, RBI, IIFL Research. Note: Trade includes both goods and services.

- India's share in world trade (goods + services) has quadrupled to 2% of GDP currently from ~0.5% of GDP in the 1980s with a sharp jump in the 2000s. India's share in world trade is higher than most large EMs, barring China.
- India is much more integrated with world economy than is commonly understood. Thus, relative to GDP, at 46%, total trade for India is similar to that of Indonesia, more than 2x that of Brazil, and only modestly lower than 55% for China. Although India is still a relatively domestically-driven economy (imports exceed exports), it is much more exposed to global business cycle now compared with 10 years ago.

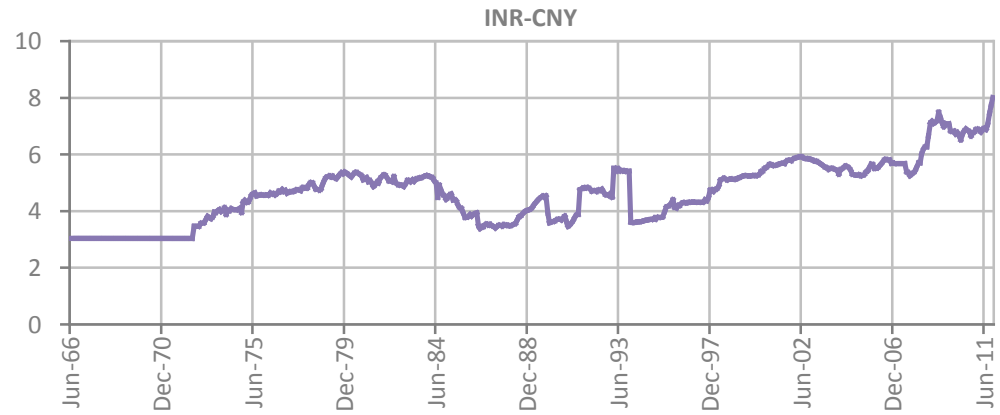
Exchange rate

Chart 6.21: 2000s was an exception to steady fall in INR against USD



Source: CMIE, CEIC, World Bank, RBI, IIFL Research

Chart 6.22: INR has sharply declined against CNY in the last decade

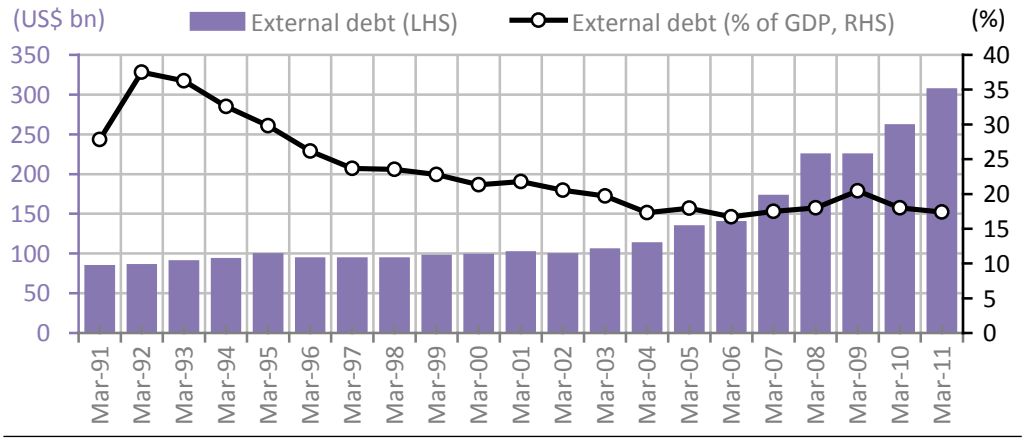


Source: CMIE, CEIC, World Bank, RBI, IIFL Research

- India's currency has gradually depreciated against the USD post independence in every decade barring the 2000s. However, the recent 20% decline in INR represents the accumulated stress due to sustained high current account deficit after the financial crisis, widening inflation differentials, and slowing capital flows.
- In particular, INR has depreciated ~50% against the Chinese Yuan since December 2007. With almost 40% of India's current account deficit being due to trade deficit with China, we expect a gradual improvement in India's external balance in the medium term.

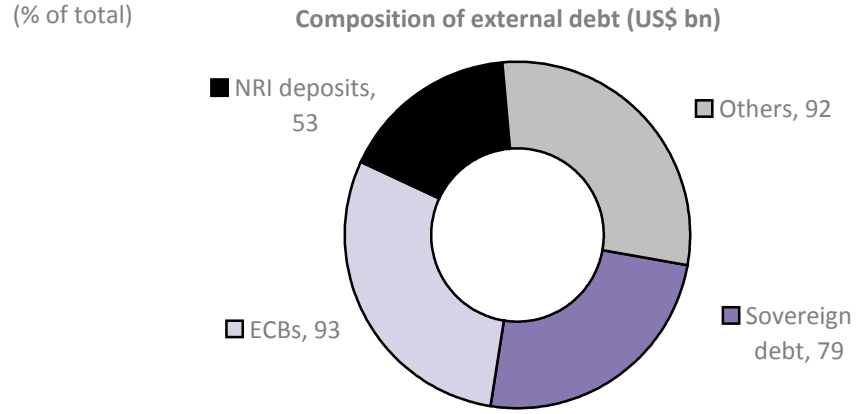
External debt

Chart 6.23: External debt remains fairly low relative to GDP



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.24: ECBs form the biggest chunk of external debt

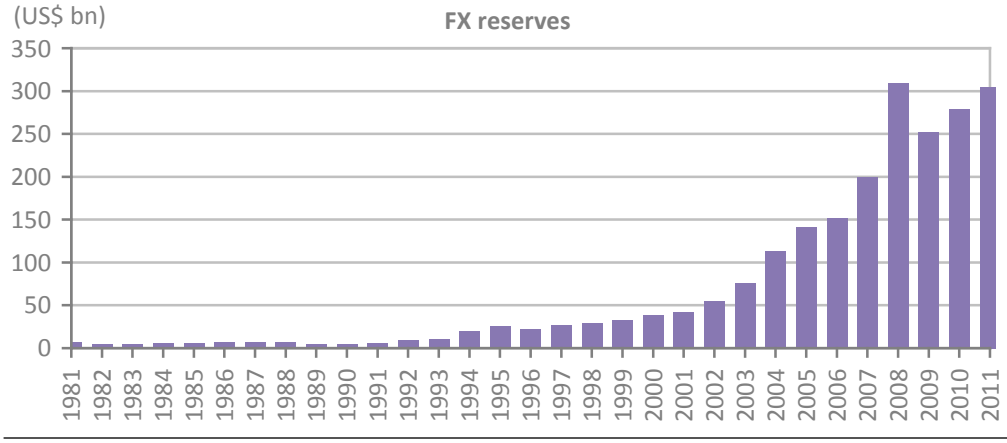


Source: CMIE, World Bank, RBI, IIFL Research

- After rising modestly in the 1990s (mere US$20bn or 20%), India's external debt tripled in the last decade, rising to US$300bn by March 2011. However, relative to GDP, external debt remains extremely low at <20%, almost a two-decade low.
- The composition of India's external debt provides comfort, as sovereign external debt is just 25% of external debt and a large portion of this is bilateral/multilateral debt rather than commercial debt. Further, 15% of external debt is through NRI deposits, which are also fairly sticky. Thus, despite a large current account deficit, sovereign risk, owing to a sudden drying up of external capital flows is minimal.

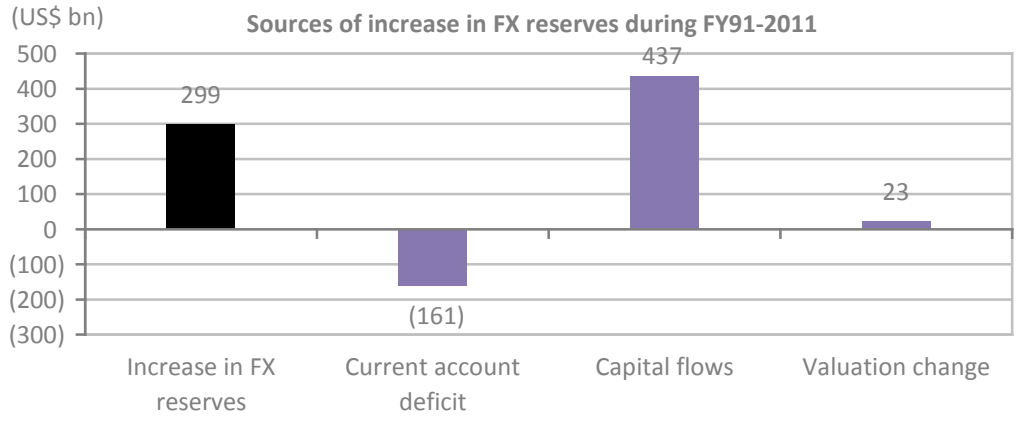
FX reserves

Chart 6.25: FX reserves increased significantly since early 1990s



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.26: Increase in reserves is due to 'excess' capital flows

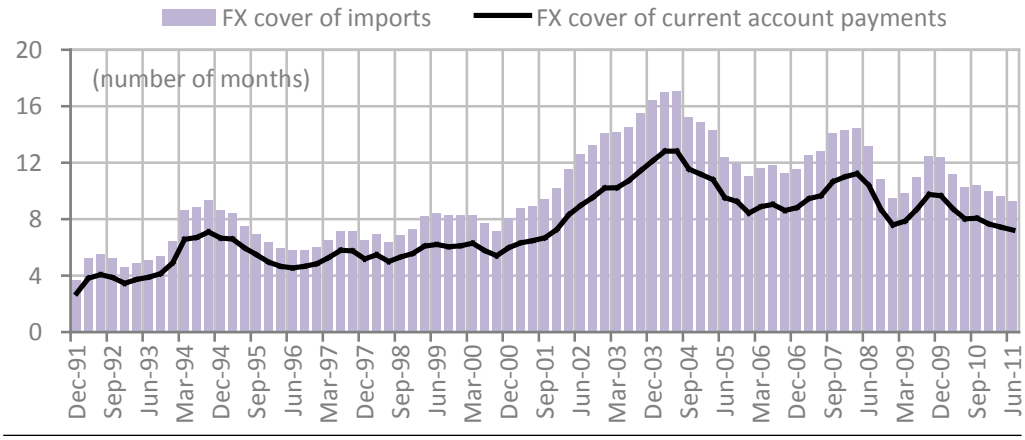


Source: CMIE, World Bank, RBI, IIFL Research

- India's FX reserves were constant at ~US$5bn-6bn during the 1980s and early 1990s when the BoP crisis occurred. However, since then, FX reserves have increased significantly to more than US$300bn currently. Today, India has the seventh-largest FX reserves in the world.
- However, unlike other countries that have large FX reserves (China, Japan, Russia, etc), India's entire FX reserves have been built by excess capital flows relative to current account deficit and not through persistent current account surpluses. In a way, the entire FX reserves represent 'owed' money rather than 'owned' money.

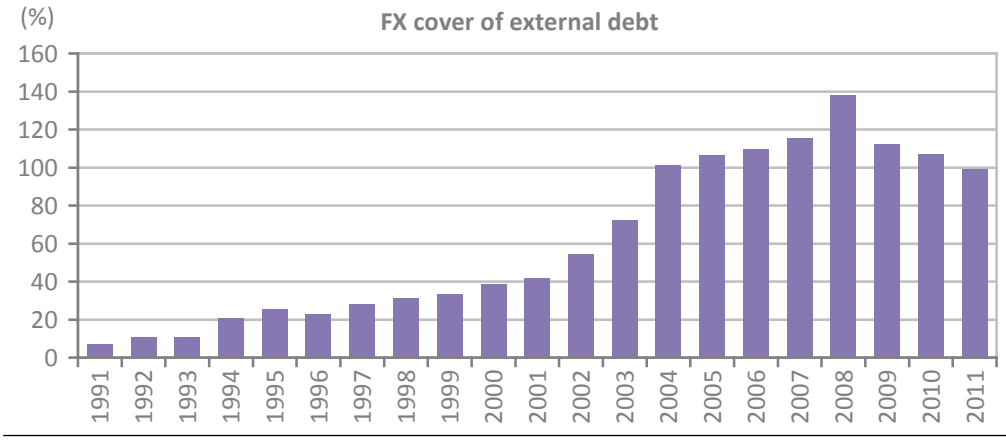
FX reserves

Chart 6.27: Coverage of FX reserves is declining



Source: CMIE, World Bank, RBI, IIFL Research

Chart 6.28: FX reserves are just <100% of external debt currently



Source: CMIE, World Bank, RBI, IIFL Research

- India's external vulnerability has increased following the financial crisis of 2009 due to relatively 'lower' FX reserves and higher current account deficit. FX reserves have stagnated at just above US$300bn for the past three years even as imports and external debt have increased.
- Thus, FX reserves cover of imports has declined to the lowest level in a decade, at just more than nine months from more than 14 months in early 2008. External debt too has increased ~40% in the past three years and now exceeds FX reserves. In contrast, FX reserves were more than 120% of external debt in March 2008.

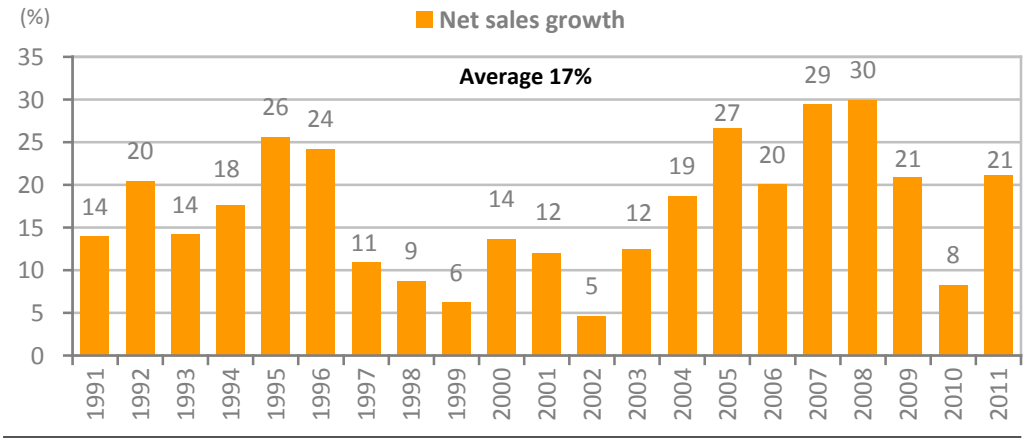
Corporate sector

The significant growth in the Indian corporate sector over the past two decades is marked by a structural shift in the size and composition of the market. New sectors (IT, Telecom, Pharma) have emerged and large dominant sectors (Materials) have been replaced by other sectors (Financials), reflecting the vibrancy of India's corporate sector. Revenue of listed companies has grown consistently faster than nominal GDP and the share of revenue has risen to more than 45% of GDP now from 20% in the early 1990s. Profit share of GDP has actually quintupled to 5% of GDP currently. However, despite this shift, EBITDA margins of companies have remained at around 16%. Current Ebitda margins are similar to this average, although PAT margins are 2ppt above this. Balance sheet leverage has reduced and cash levels have increased. Return on equity has structurally moved up from ~10% in the 1990s to high-teens currently. Further, due to lower interest rates, the excess return gap turned positive in the 2000s and drove the massive re-rating of Indian equities.

India's equity capital markets have become large and liquid, enabling considerable domestic capital raising. In the recent past, IPOs such as that of Coal India, Reliance Power, and ONGC have been bigger than the entire annual equity raised in the 1990s. Over the past decade, FII holding of Indian equities increased ~5ppt, as FII inflows in equities totalled ~US$90bn. FIIs are now the largest holders of market free float at ~30%; not surprisingly, swings in FII flows have a significant impact on the equity markets.

Size and growth

Chart 7.1: Revenue growth has averaged 17% over the past 20 years



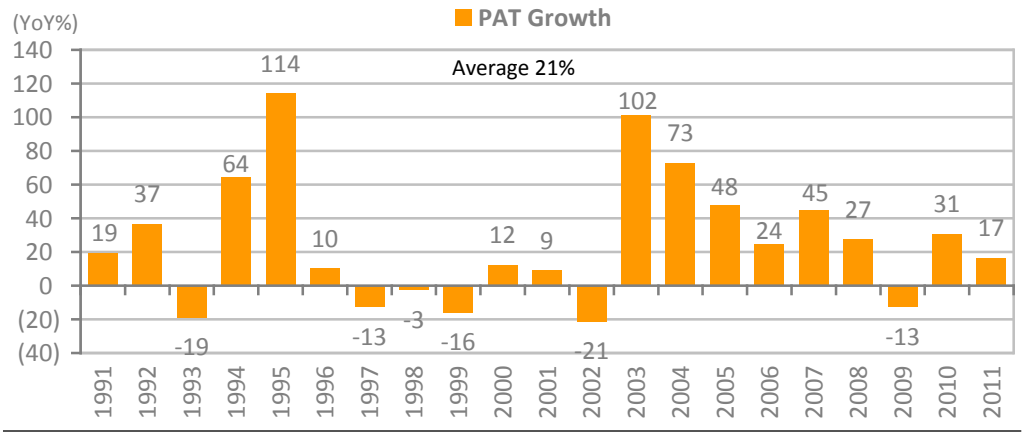
Source: CMIE, IIFL Research. Note: Data is ex financials. Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

Chart 7.2: Revenue of listed companies has increased to 45% of GDP

Source: CMIE, IIFL Research. Note: Data is ex financials. Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

- Revenue of listed companies has registered 17% Cagr over the past two decades, ~3ppt above nominal GDP with a moderate 50% correlation with nominal GDP growth. Faster-than-nominal GDP growth and increase in the number of listed companies have led to revenue of listed companies increasing from over 20% of GDP in the early 1990s to ~45% of GDP now.
- It is worthwhile to note that over the past two decades, revenue growth has been in single digits only for four years. Further, even during the 1990s, when real GDP growth was under 6%, revenue for listed companies delivered 15% Cagr.

Chart 7.3: Profit, though volatile, have grown faster than revenue



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

Chart 7.4: Profit of listed companies has risen to ~5% of GDP

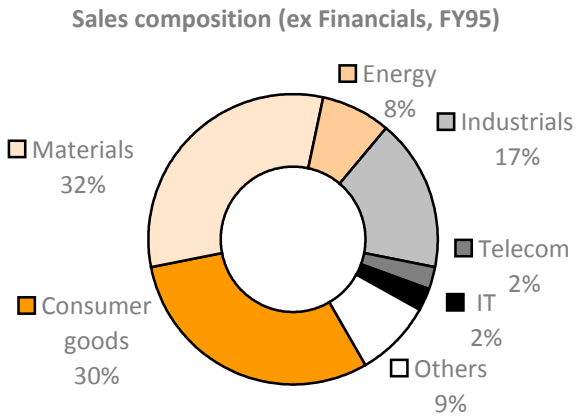
Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

- Corporate profit growth over the past two decades can be divided in three distinct phases reflecting the three economic cycles. While year-to-year profit growth is volatile on an aggregate basis, it is apparent that profit growth is highly leveraged to economic growth and a sharp slowdown, as in FY97-02, can have a negative impact on corporate profitability.
- Profit of listed companies, which was <2% of GDP throughout the 1990s, has increased significantly to ~5% of GDP over the past 4-5 years, because in the last decade, profit grew faster than nominal GDP growth in all but two years.

Revenue composition

Chart 7.5: Consumer goods, materials were largest sectors in 1995

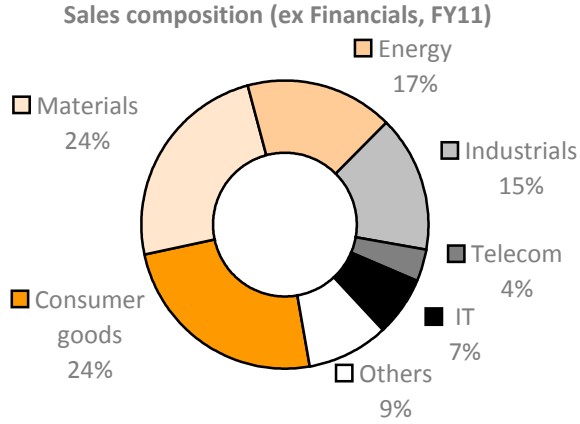
(% of total)



Source: CMIE, IIFL Research. Note: Consumer goods includes consumer discretionary and consumer staples. Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

Chart 7.6: However, their share of revenue has declined

(% of total)

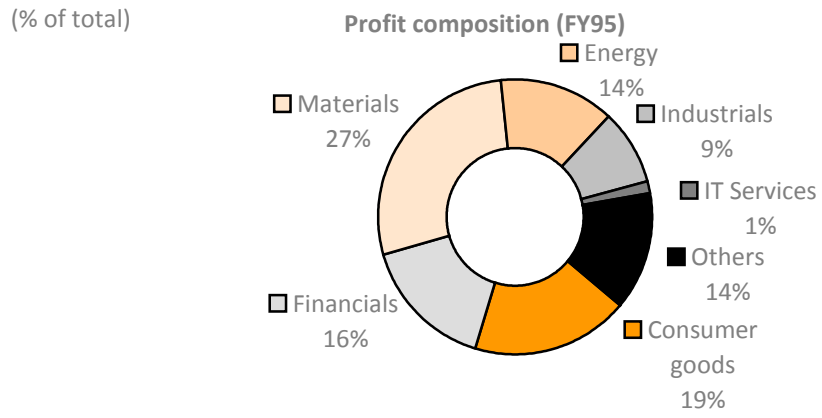


Source: CMIE, IIFL Research. Note: Consumer goods includes consumer discretionary and consumer staples. Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

- With the market becoming more broad based, the composition of listed companies in India has changed significantly over the past 15 years. Sectors such as IT and telecom, which were a negligible part of the market in the 1990s, have become large sectors.
- Interestingly, the share of global cyclicals, energy and materials, has remained unchanged, with the decline in share of materials offset by an increase in share of energy.

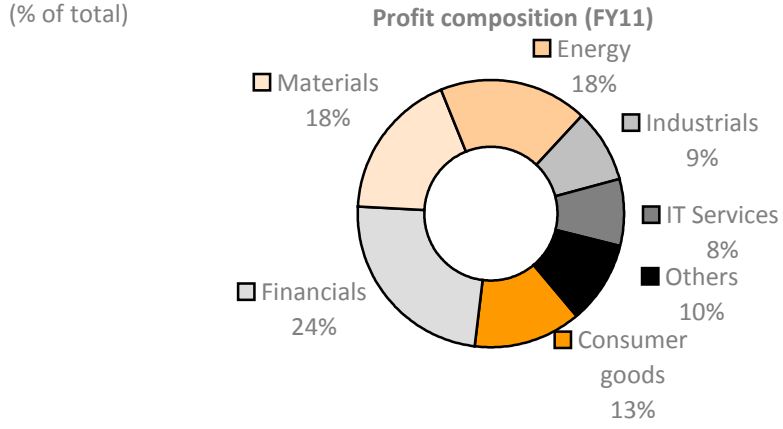
Profit composition

Chart 7.7: Materials was the biggest contributor to profit in FY95



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

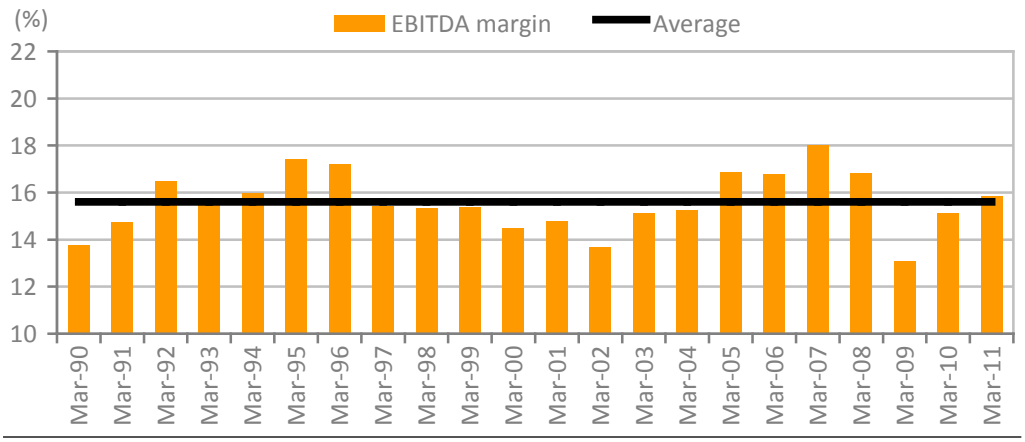
Chart 7.8: Financials is now the largest sector with 24% of profit



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

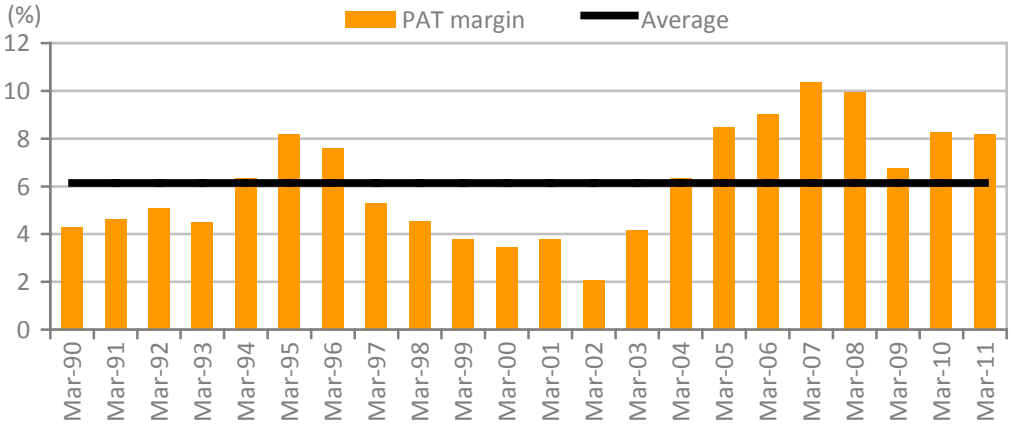
- The profit mix of listed companies has changed even more significantly than the sales mix. Financials has emerged as the largest sector with almost a quarter of profit whereas materials, which was the largest sector in the mid-1990s, has seen its share decline by more than a third.
- We have highlighted before that the composition of market earnings is quite different from the composition of GDP due to the large weightage of global cyclicals in market earnings. Thus, although India benefits from declining commodity prices at an economy level, its market earnings are negatively impacted.

Chart 7.9: Current Ebitda margins are close to their average



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies and financials

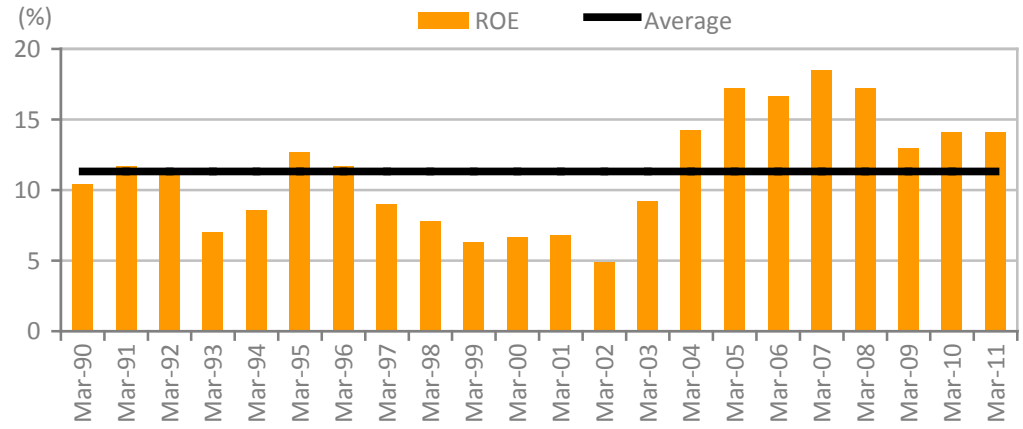
Chart 7.10: Profit margins are about 2ppt above their average



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies and financials

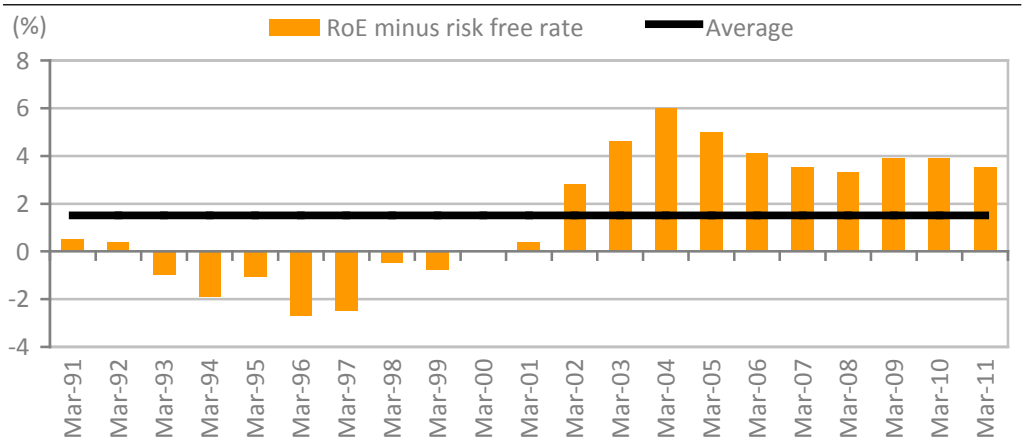
- Operating (Ebitda) margins are highly cyclical, swinging ~3-4ppt over the economic cycle. However, current Ebitda margins are in line with the average. PAT margins, on the other hand, are significantly higher (~2ppt) than their long-term average, reflecting lower leverage, interest rates as well as tax rates, which has reduced the drag on Ebitda.
- However, if profit margins were to decline to their two-decade average over the next two years (FY11-13) due to slowdown in growth and high interest rates, it would imply zero growth in profit in the next two years.

Chart 7.11: RoE has structurally improved in the 2000s



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

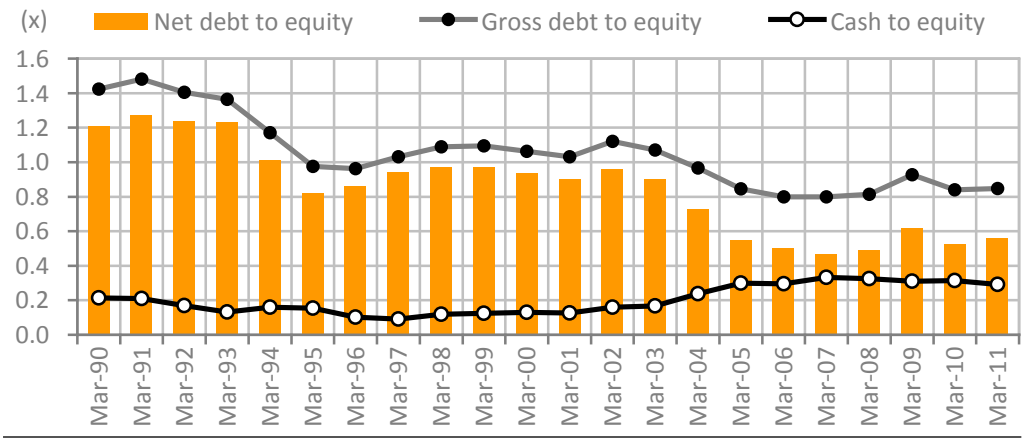
Chart 7.12: Excess return gap has been positive in the 2000s



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies

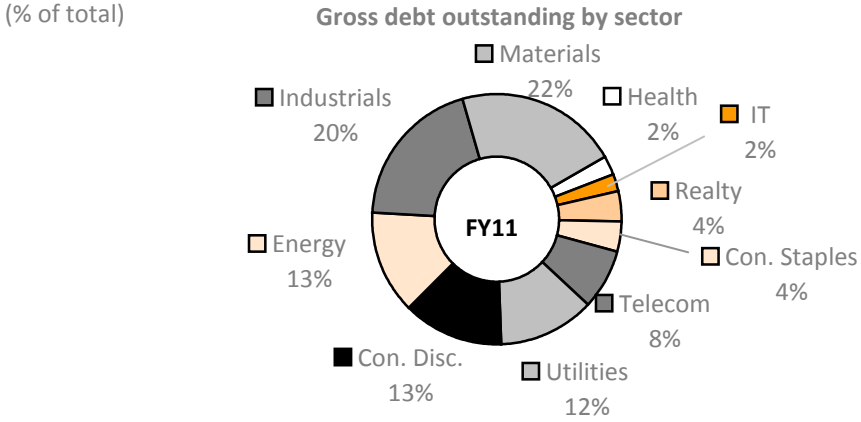
- Aggregate Return on Equity (RoE) for listed companies has averaged a modest 11% over the past two decades; however, there is clear divergence: RoE was in single digits for most of the 1990s and early 2000s and it averaged 15-16% since.
- Even more stark is the excess return gap (RoE minus cost of equity): throughout the 1990s, excess return gap was almost consistently negative due to a combination of low RoE and double-digit risk free rate. In the past decade, however, this has changed, as the risk free rate has come down whereas RoE has expanded. Not surprisingly, the equity markets re-rated significantly post 2003.

Chart 7.13: Balance sheet leverage is lower than long-term average



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies and financials

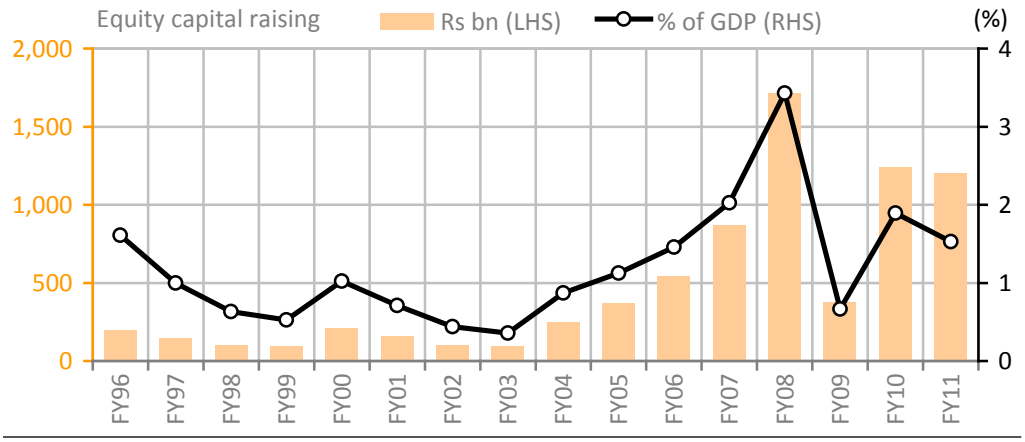
Chart 7.14: Materials, industrials have the largest absolute debt



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database but excludes PSU oil marketing companies and financials

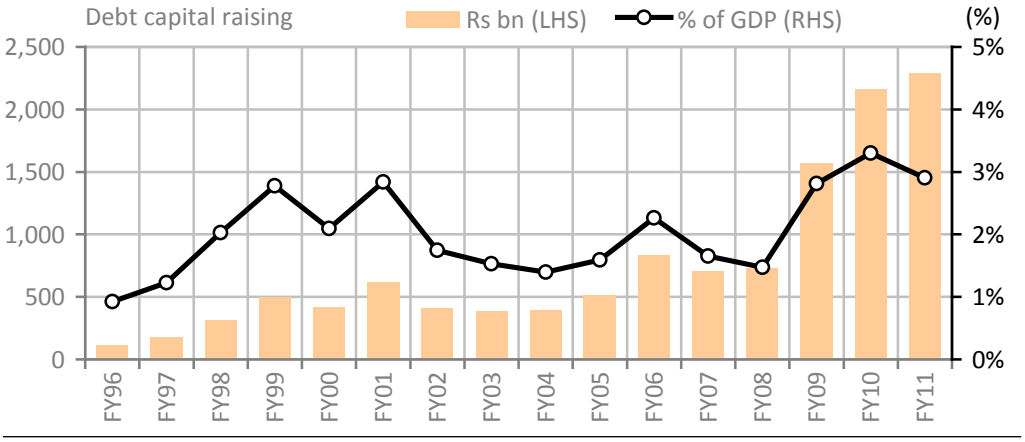
- Corporate leverage has structurally come down, despite robust growth and the financial crisis. In addition, cash levels on companies' balance sheets have increased and thus leverage at a net level has declined from more than 1x in the 1990s to ~0.6x now.
- Sectorally, the materials and industrials sectors have the largest amount of gross debt in absolute terms at 22% and 20% of total debt of listed companies, respectively.

Chart 7.15: Equity capital markets have risen manifold since 1990s



Source: CMIE, IIFL Research

Chart 7.16: Debt capital raising was at a record high in FY11

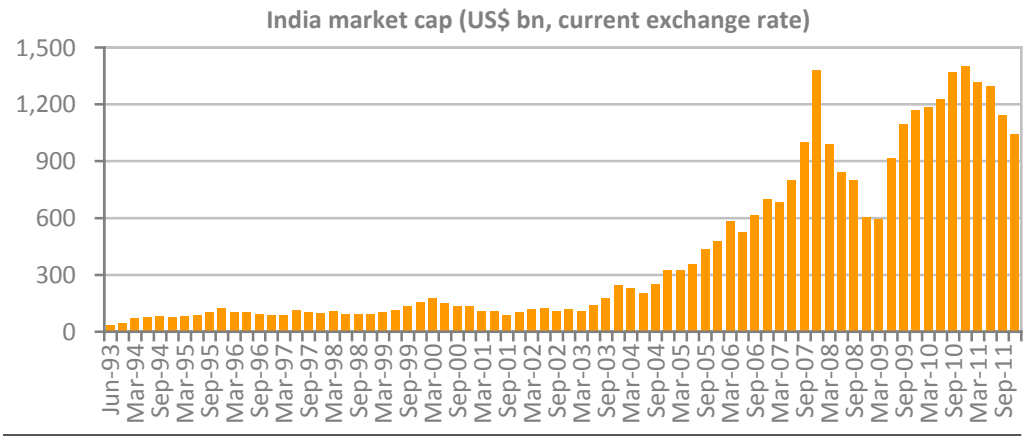


Source: CMIE, IIFL Research

- Over the past few years, the size and liquidity of the capital markets in India has increased significantly. IPOs of companies such as Coal India, Reliance Power and ONGC in the past decade were bigger than the total annual equity raised in the late 1990s.
- The debt market, which was smaller than the equities market in the mid-1990s, is now almost 2x the equity market in terms of capital raising. Even during FY09, when equity capital markets were under severe strain, raising of debt capital had doubled YoY.

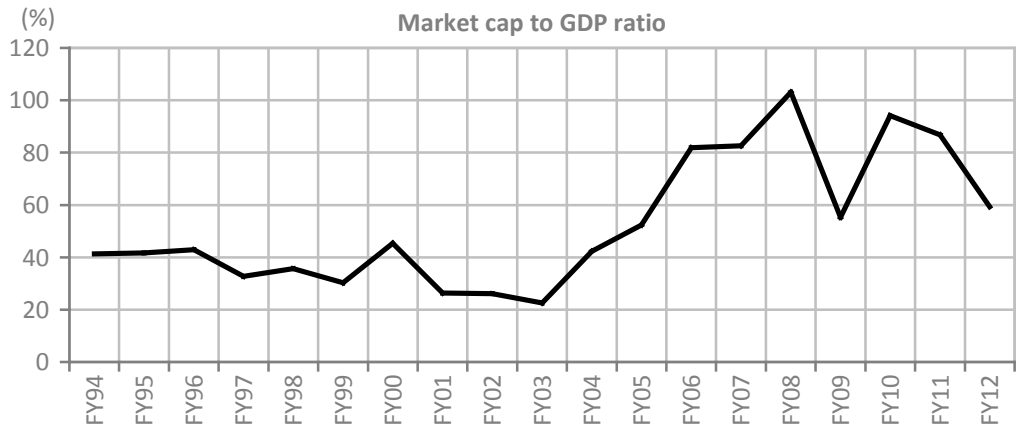
Market cap

Chart 7.17: India is one of the few countries with market cap >US$1tn



Source: CMIE, IIFL Research

Chart 7.18: Mkt cap to GDP ratio has increased significantly in 2000s

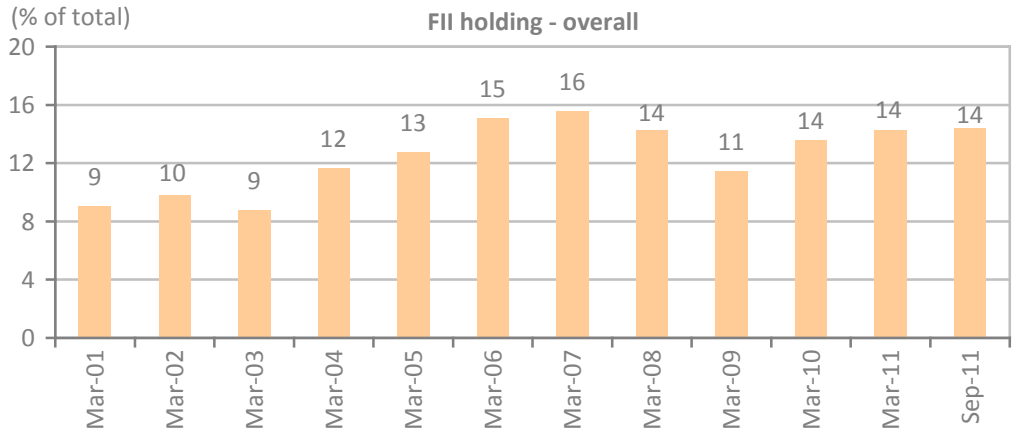


Source: CMIE, IIFL Research

- India is one of the few countries to have a market cap of over US$1tn - though it is down ~30% from the peak, reflecting the decline in equity markets.
- Market-cap-to-GDP, the broadest measure of market valuations, has significantly improved in the last decade (from ~20-40% in the 1990s to 60-100% in the 2000s), reflecting the massive re-rating of Indian equities. The ratio has, however, corrected sharply in recent months and is close to an eight-year low.

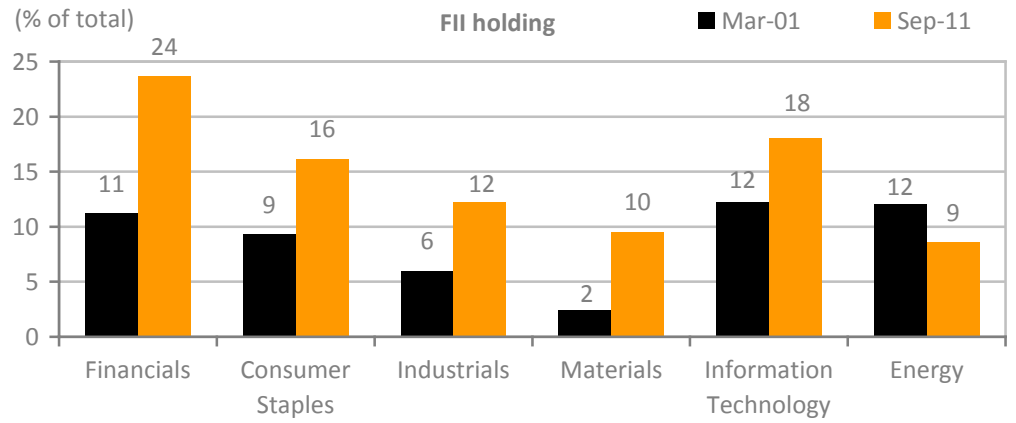
Market ownership

Chart 7.19: FII holding of the market has increased this decade



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database

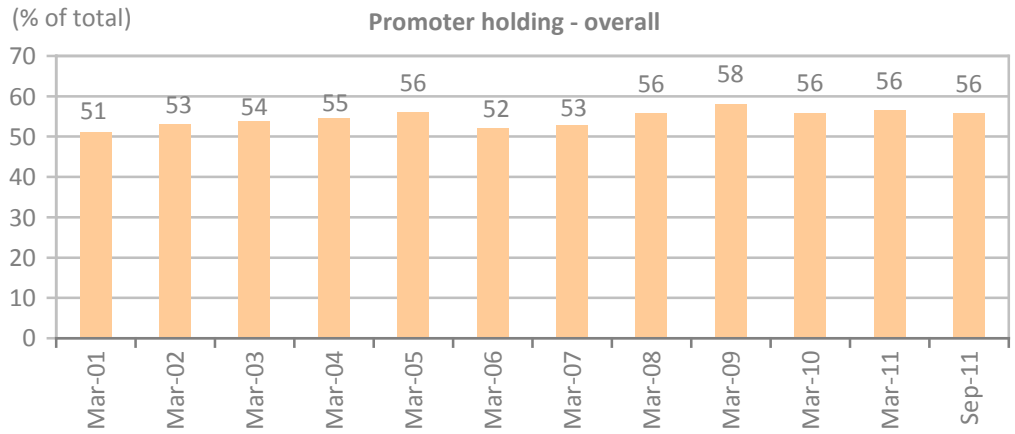
Chart 7.20: Financials, materials have seen big jump in FII holding



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database

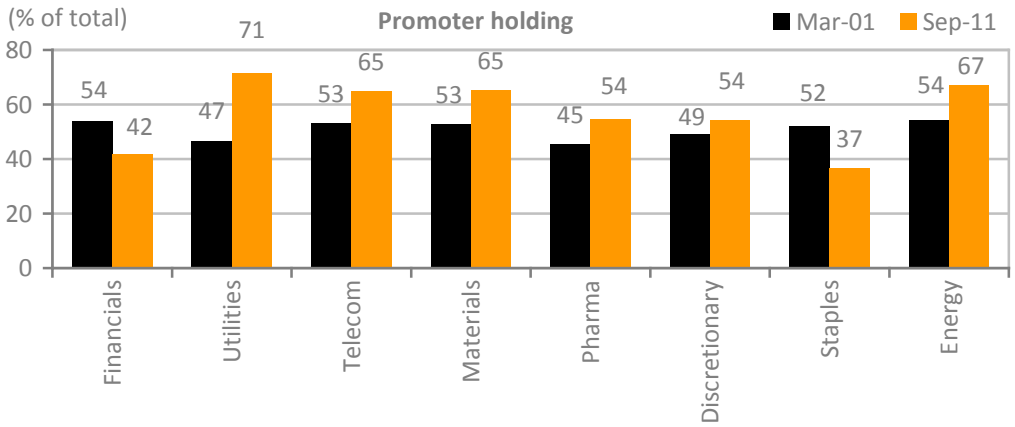
- FII holding of the market increased significantly over the past decade. This is not surprising as net FII inflows totaled ~US$90bn over FY01-11. Further, FIIs are the biggest holders of market free float at ~30%.
- At a sectoral level, the increase in FII holding has been across all sectors barring energy, where the holding has actually declined. The maximum increase in FII ownership was in the financials and materials sectors: FIIs now own more than 20% of the market cap of the financials sector in India.

Chart 7.21: Promoter holding of the market has actually increased...



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database

Chart 7.22: ...especially in sectors such as utilities, energy, telecom



Source: CMIE, IIFL Research. Note: Includes all listed companies in the CMIE Prowess database

- Interestingly, despite increased capital raising and rising FII ownership in the market, aggregate promoter holding has increased, reducing effective free float.
- This largely reflects the listing of large PSUs with low float in sectors such as utilities (NTPC, Power Grid) and energy (Coal India), and private sector companies such as Bharti and TCS that have large promoter holding.

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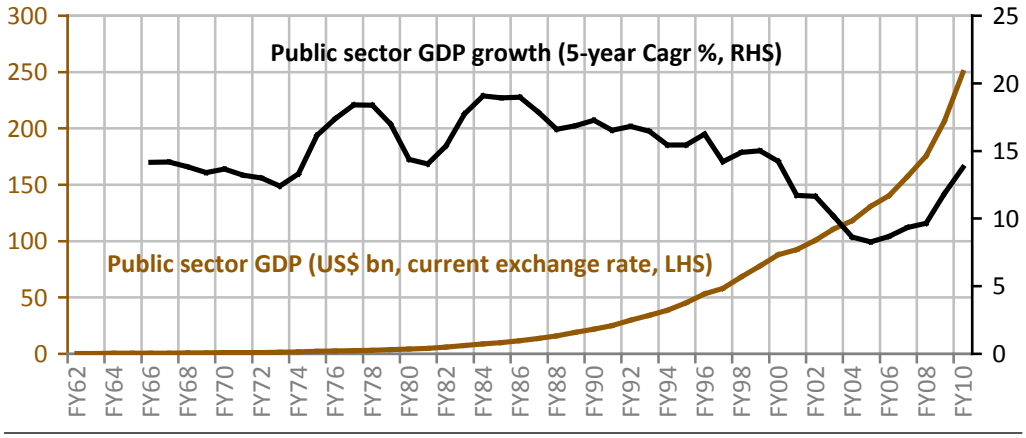
Public sector

The public sector in India is large with annual output of ~US$250bn (FY10) and has grown faster than nominal GDP in the last couple of years. However, its share in national output, at just more than 20%, has declined in the past decade. But, it is still higher than that in the 1960s and 1970s. It is interesting to note that despite liberalisation of the economy since the early 1990s, the share of the public sector in national output started declining only in the last decade. This slightly counter-intuitive trend reflects the delayed opening of many sectors such as telecom, banking and insurance (the fastest-growing sectors in the economy) to the private sector. Coincidentally, growth in these services saw a sharp uptick following their opening up to the private sector.

A discomforting trend in the growth of the public sector is its deteriorating composition. Although public sector investments have risen in recent times, they remain 2-3ppt (of GDP) below their peak even as government consumption is close to its peak. Despite India being much more private sector driven, the share of government consumption at ~12% is only marginally lower than that of China at ~14%. Another discomforting trend is the worsening financial health of PSUs. In aggregate, savings of PSUs have declined sharply in recent years. Adjusted for depreciation, in aggregate, non-financial PSUs are probably making losses. This is not surprising, given the large (off-budget) subsidy burden on PSUs in the oil and electricity sectors.

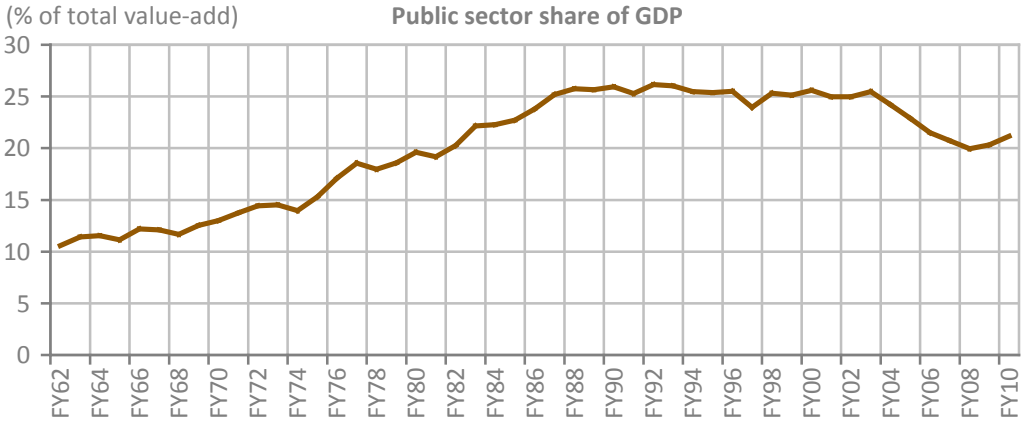
Size

Chart 8.1: Public sector value add is large and growing at 14% pa



Source: CMIE, CEIC, Govt of India, IIFL Research

Chart 8.2: Public sector constitutes just >20% of overall GDP



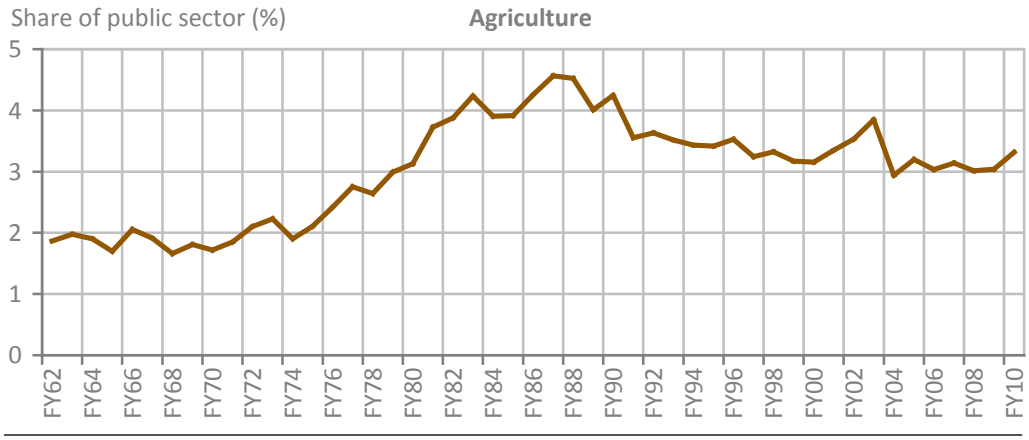
Source: CMIE, CEIC, Govt of India, IIFL Research

- Public sector in India has registered a 14% Cagr over the past five years (FY05-10), modestly lower than the overall nominal GDP. However, due to the recent Pay Commission award, it has grown faster than overall GDP in the past 2-3 years.
- Although the share of public sector in output has declined in the 2000s, it is higher than that in the 1960s or 1970s. Further, the share of public sector in overall GDP has declined only since the 2000s, despite the liberalisation of the economy in the early 1990s, reflecting the delayed opening of many services to the private sector.

Note: In this section, data from FY05 is based on 2004-05 base year national accounts data; prior data is based on 1999-2000 base year data.

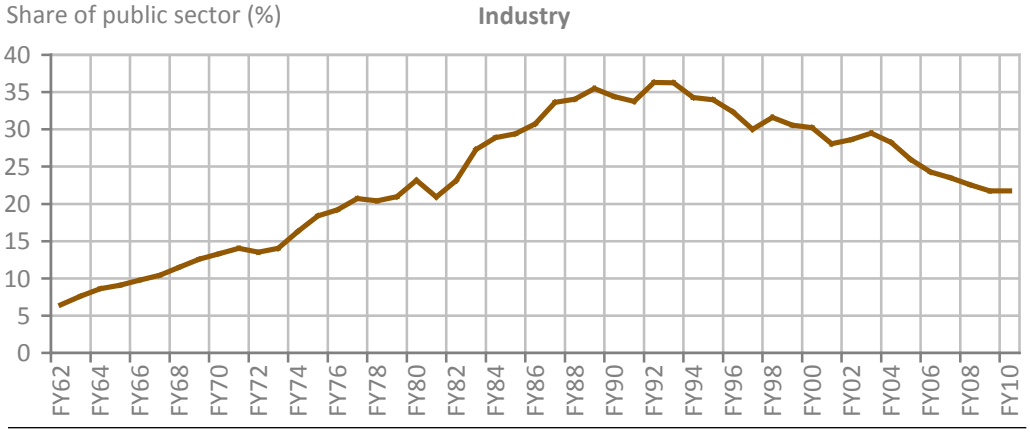
Size

Chart 8.3: The public sector's share in agriculture is a modest 3%



Source: CMIE, CEIC, Govt of India, IIFL Research

Chart 8.4: Public sector's share in industry is ~20% and declining

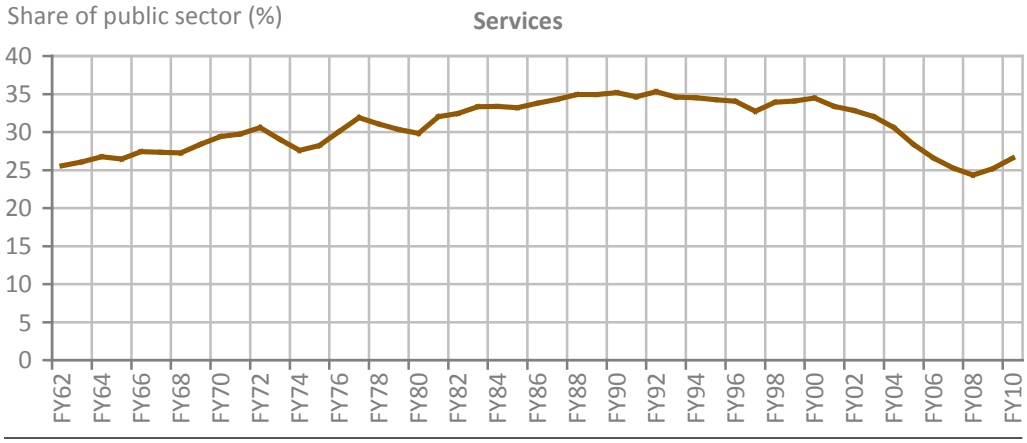


Source: CMIE, CEIC, Govt of India, IIFL Research

- Public sector's share in agriculture is negligible at 3-4% and has been gradually coming down since the mid-1980s, when it peaked at 4.5%.
- The public sector's share in industry peaked in the early 1990s and it decelerated thereafter, reflecting the liberalisation of the economy in the early 1990s. However, despite liberalisation, the public sector still contributes to 20% of industrial output and its contribution to the industrial sector is higher than that in the 1960s and 1970s.

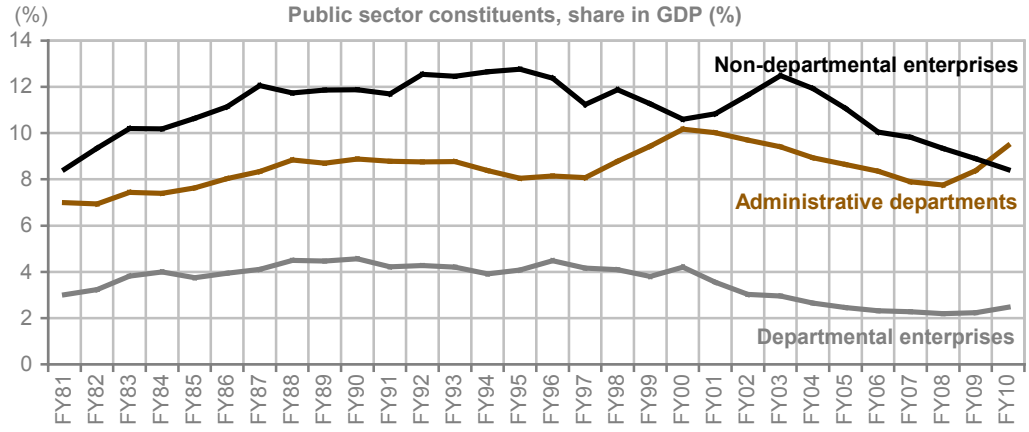
Size

Chart 8.5: Public sector's share is highest in services at >25%



Source: CMIE, CEIC, Govt of India, IIFL Research

Chart 8.6: Govt administration is biggest category of public sector

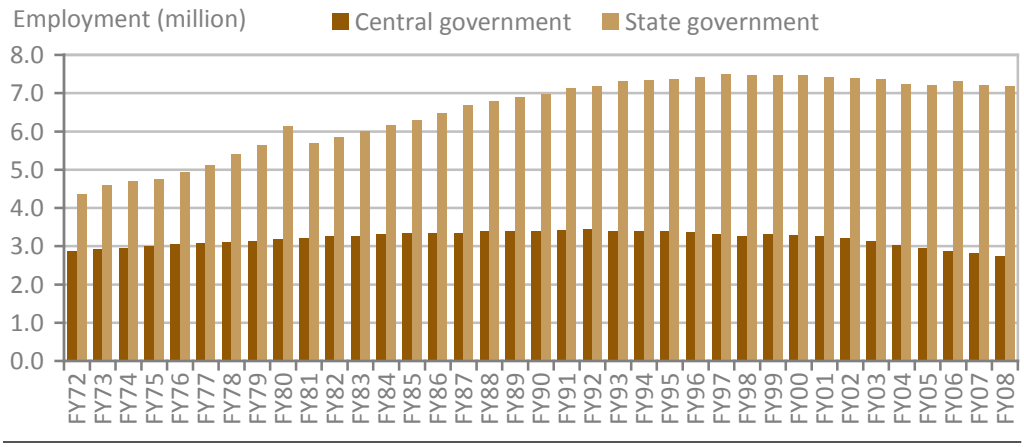


Source: CMIE, CEIC, Govt of India, IIFL Research. Note: Administrative departments refers to basic govt services. Departmental enterprises refers to govt departments like railways. Non-departmental enterprises refers to public sector companies, statutory corporations, etc.

- Public sector's share in services peaked in the late 1990s, almost a decade after the peak was reached for the industrial sector. This reflects the delayed opening up of the services sector to the private sector. It is worth noting that following this opening up, growth has accelerated in many categories such as insurance, telecom, banking, and IT services driven almost entirely by the private sector.
- At a constituent level, the share of non-departmental enterprises has declined to a three-decade low. However, the share of government administration has actually increased and is now the largest constituent of the public sector.

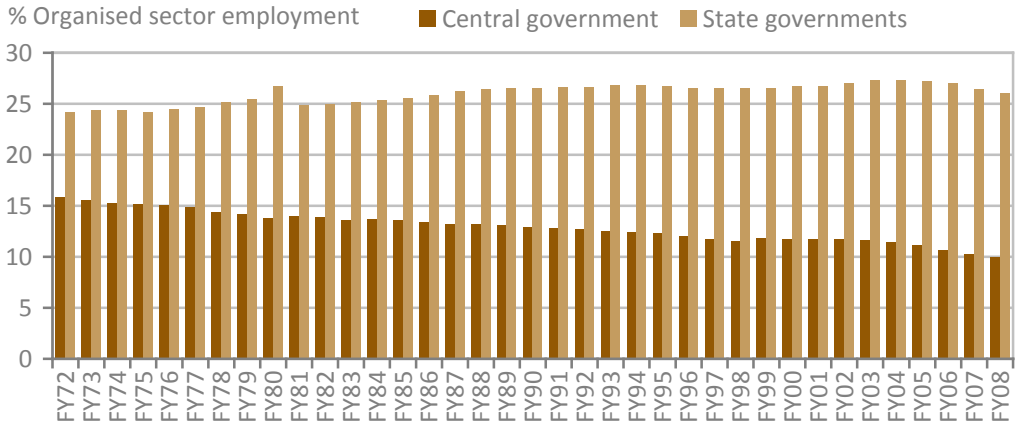
Employment

Chart 8.7: State govts employ 2x more than the central government



Source: CMIE, CEIC, Govt of India, IIFL Research

Chart 8.8: Central, state govt have 1/3rd of organised labour force

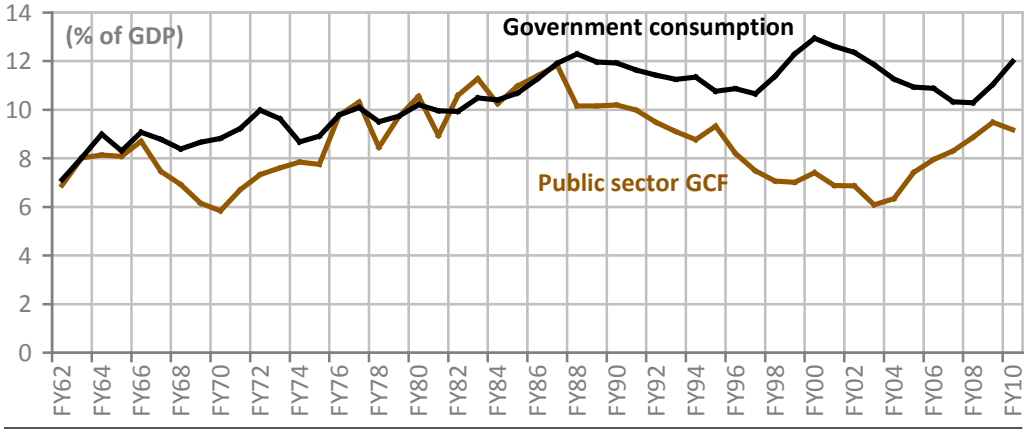


Source: CMIE, CEIC, Govt of India, IIFL Research

- Central government employment rose modestly in the 1970s and 1980s, but it has gradually declined over the past two decades. On the other hand, state government employment, after rising 50% by the early 1990s relative to the early 1970s, has remained stable over the past two decades.
- Central and state governments together account for just more than 1/3rd of total organised employment. Although a large number, we should note that organised employment has a low share (~10%) in overall employment. Thus, central and state government employees form a small fraction of the overall labour force.

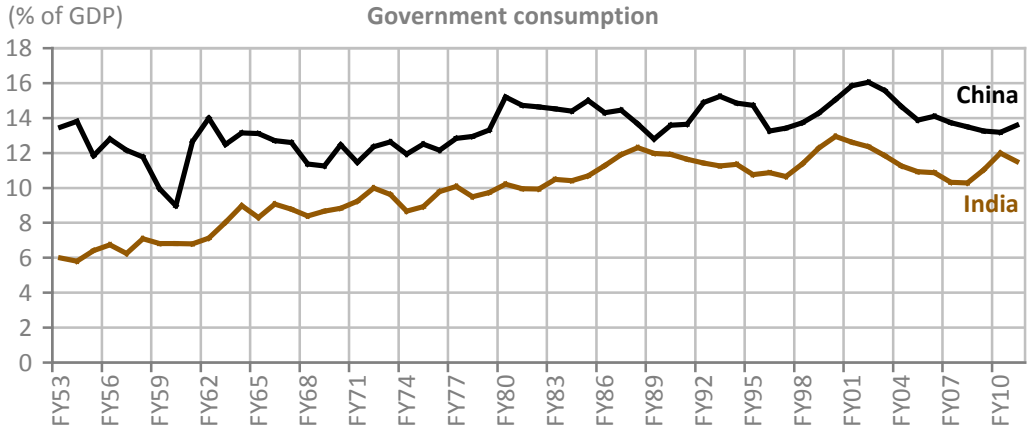
Composition

Chart 8.9: Government consumption remains close to all-time highs



Source: CMIE, CEIC, Govt of India, IIFL Research

Chart 8.10: Govt consumption in India is modestly below China's

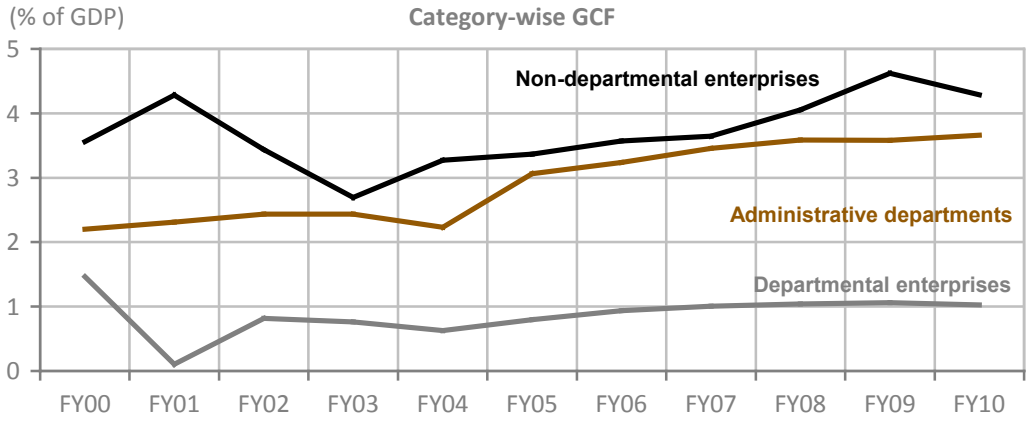


Source: CMIE, CEIC, Govt of India, IIFL Research

- From the 1960s until the late 1980s, government consumption and public sector capex were roughly similar and they grew in sync. However, in the decade since liberalisation, the share of public sector capex has declined whereas that of government consumption has remained steady, relative to GDP, at about 12%.
- Interestingly, government consumption in India is only marginally lower than that in China and the gap between the two has gradually narrowed over the years, despite the significantly lower involvement of public sector in providing many social services such as health and education in India, relative to China.

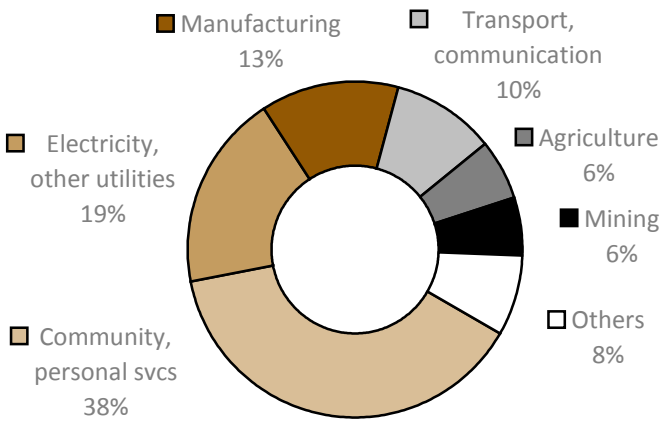
Composition

Chart 8.11: PSUs are the biggest contributors to public sector GCF



Source: CMIE, CEIC, Govt of India, IIFL Research

Chart 8.12: Nearly 40% of public sector capex goes to social svcs

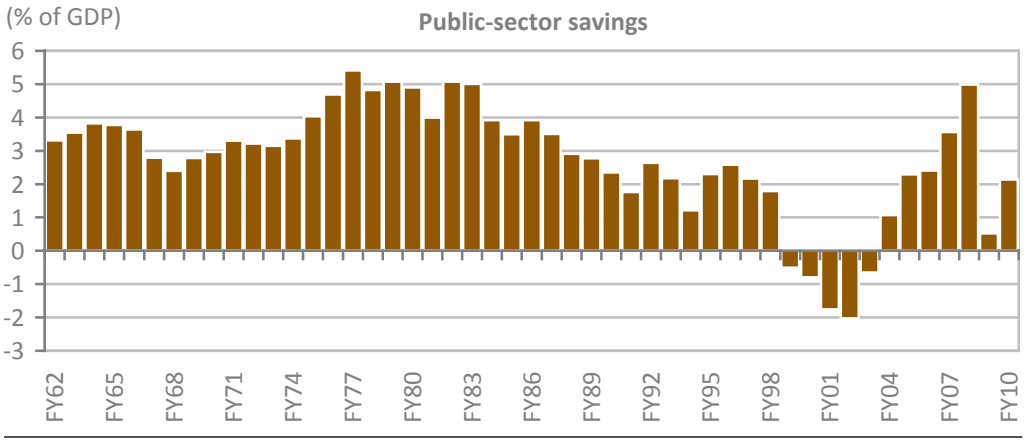


Source: CMIE, CEIC, Govt of India, IIFL Research

- Public sector companies (non-departmental enterprises) are the largest constituents of public sector capex. Although PSU capex increased in recent years, it remains around the levels of the early 2000s.
- At the sectoral level, social services, utilities and manufacturing are the biggest components of public sector GCF. Interestingly, public sector investments in agriculture are the same as that in mining and half that of the manufacturing sector.

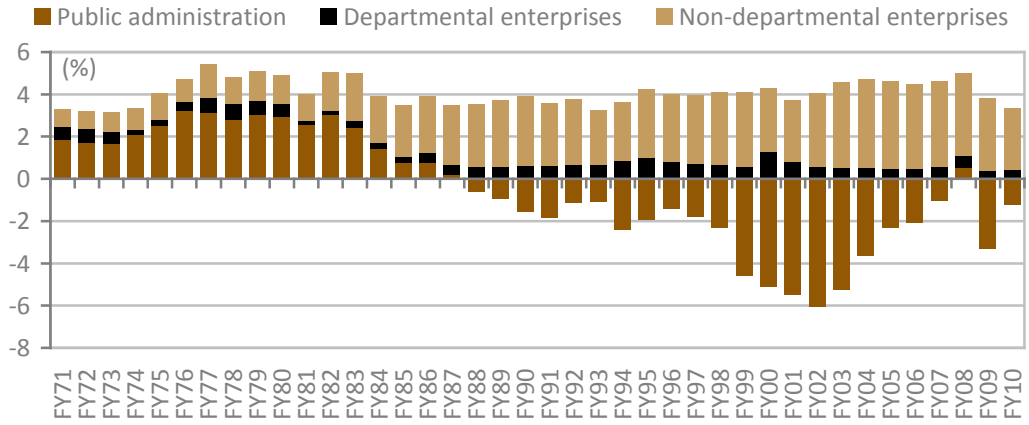
Savings

Chart 8.13: Public sector savings are modest currently



Source: CMIE, CEIC, Govt of India, IIFL Research

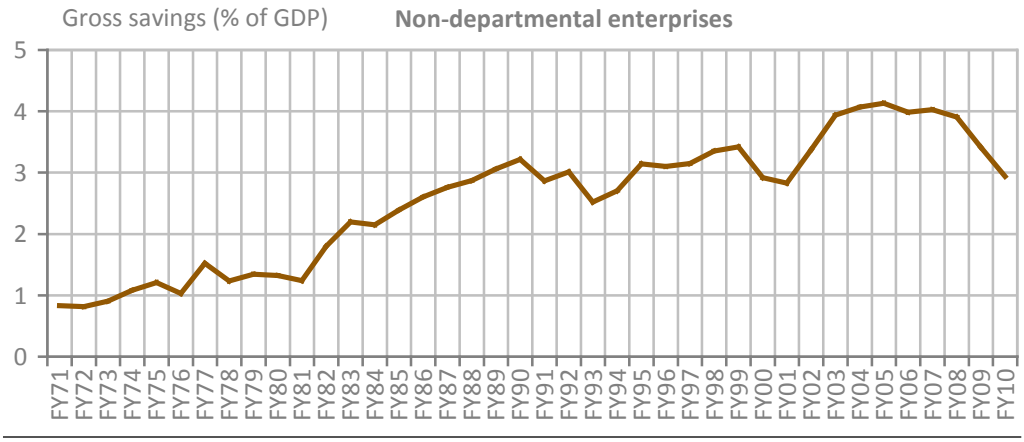
Chart 8.14: PSUs are large savers, govt administration is a drag



Source: CMIE, CEIC, Govt of India, IIFL Research

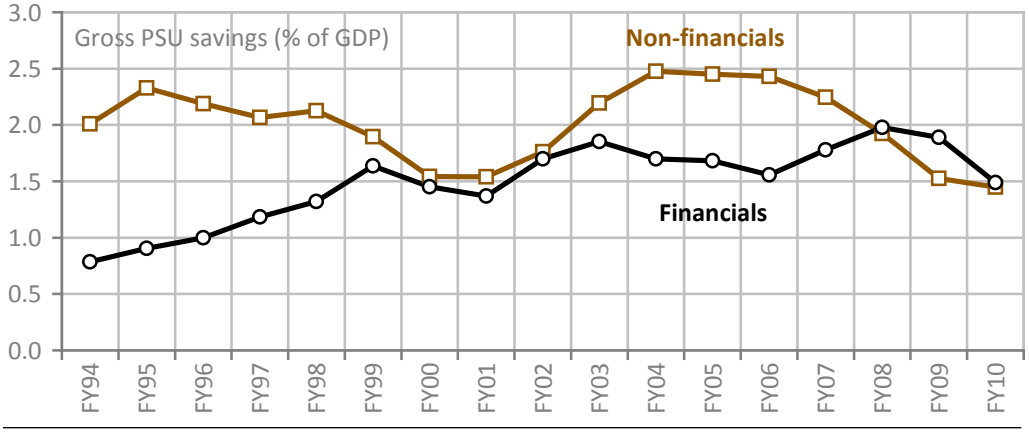
- At an aggregate level, public sector savings were robust at 3-5% of GDP during 1960s-1980s. However, they have come down during the past two decades (barring a couple of years in the last decade).
- The decline has been entirely due to lower savings from government administration, which turned into a net dis-saver as both the central and state governments turned from consistent revenue surplus to large revenue deficit. Given the drag from higher subsidies and entitlement programmes, this trend is unlikely to reverse in the near term and thus overall public sector savings will remain modest.

Chart 8.15: PSU savings have declined sharply in the past few years



Source: CMIE, CEIC, Govt of India, IIFL Research

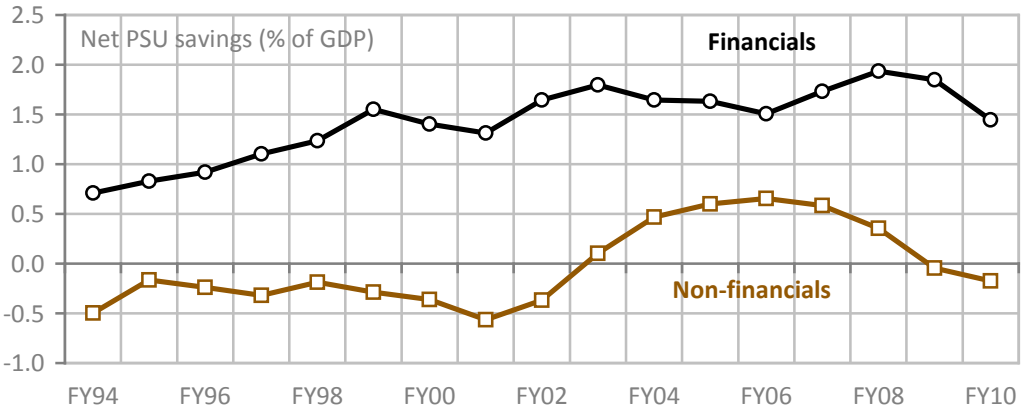
Chart 8.16: Decline in PSU savings is across the board



Source: CMIE, CEIC, Govt of India, IIFL Research

- Savings of PSUs (non-departmental enterprises) have quadrupled from the 1970s to the mid-2000s (from 1% of GDP to 4% of GDP) but have since declined sharply to under 3% of GDP by FY10. The decline in savings is largely due to non-financials, even though savings of financial sector PSUs have also declined.
- The decline in savings in PSUs, especially in non-financial PSUs, reflects the higher burden of subsidies and is thus an extension of fiscal policy. Due to non-revision of tariffs, losses of state electricity boards (SEBs) have ballooned and profitability of government-owned oil companies has eroded due to higher under-recoveries.

Chart 8.17: Adj for depreciation non-financial PSUs are loss making



Source: CMIE, CEIC, Govt of India, IIFL Research

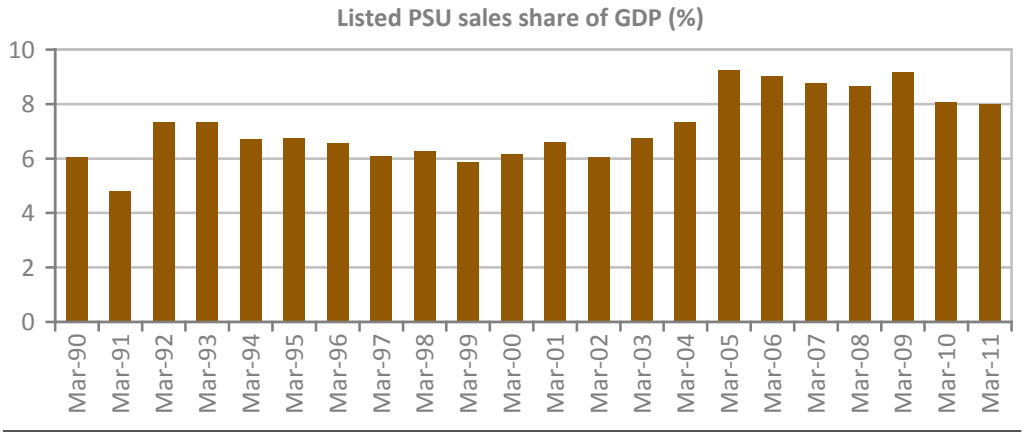
Chart 8.18: Largest listed PSUs

Company	Sector	Mkt cap (US$ bn)	Revenues (US$ bn)	Company	Sector	Mkt cap (US$ bn)	Revenues (US$ bn)
ONGC	Energy	44	23	SAIL	Materials	6	8
Coal India	Energy	37	10	Oil India	Energy	6	2
NTPC	Utilities	25	11	BoB	Financials	5	5
SBI	Financials	20	29	PNB	Financials	5	6
Indian Oil	Energy	13	55	NHPC	Utilities	5	1
NMDC	Materials	12	2	BPCL	Energy	4	30
BHEL	Industrials	12	8	Power Fin. Corp	Financials	3	2
MMTC	Industrials	10	14	Hind. Copper	Materials	3	0.2
GAIL India	Utilities	10	6	Canara Bank	Financials	3	5
Power Grid	Utilities	9	2	BoI	Financials	3	5

Source: CMIE, CEIC, Govt of India, IIFL Research

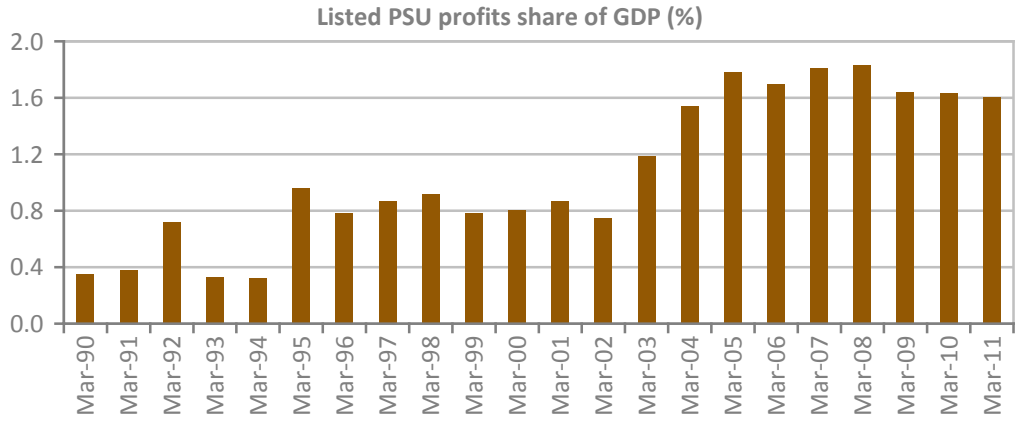
- Net of depreciation, non-financial PSUs, in aggregate, are net dis-savers, implying that they are making losses. This is not surprising, given that state SEBs themselves are making losses of about 1% of GDP.
- ONGC is the largest listed PSU currently, followed by Coal India. Not surprisingly, the largest PSUs are in the resources and the financial sectors because the entry of the private sector is restricted in these sectors due to regulatory reasons.

Chart 8.19: Sales of listed PSUs have increased in the 2000s



Source: CMIE, CEIC, Govt of India, IIFL Research. Note: Excludes PSU oil marketing companies and financials.

Chart 8.20: Profit share of listed PSUs has increased in 2000s



Source: CMIE, CEIC, Govt of India, IIFL Research. Note: Excludes PSU oil marketing companies.

- Revenue and profit of listed public sector companies has increased in the past few years, largely reflecting the listing of large PSUs such as Coal India, PowerGrid, and NTPC.
- Listed PSUs thus constitute ~17% of overall revenue and ~30% of overall profit of listed companies. The higher share of profit reflects significantly higher profit margins for large PSUs such as ONGC and Coal India.

Notes

Notes

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