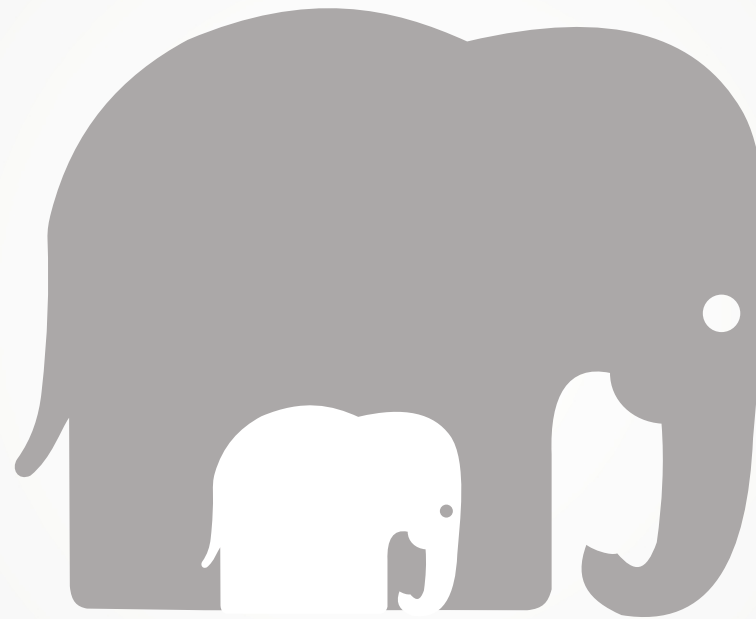


April 2014

# Of growth & missed opportunity



What 5% / 6.5% / 9% GDP growth will mean for India in the next 5 years





## Of growth & missed opportunity

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What 5% / 6.5% / 9% GDP growth will mean for India in the next 5 years





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PREFACE  
ROAD TO  
RICHES/  
RUT

**A** drive from the suburbs to downtown Mumbai is a nightmare, save for an occasional stretch like the Bandra-Worli Sea Link. Speed regressions are frequent owing to poorly maintained – or perpetually under repair – roads.

India's growth story in the last decade has been quite similar. After a slow and bumpy ride, the economy took the Sea Link between fiscals 2004 and 2011, racing at near 9%, punctuated briefly by the 2008 global financial crisis. But the foot has come off the gas pedal as policy potholes festered left, right and centre – political pun intended. With years of sub-par growth and unsatisfactory progress on debottlenecking, many now see the economy trapped in the 5% growth lane.

We believe India can grow faster over the next 5 years, but nowhere near the 9% heyday. There is a 50% chance growth will average 6.5% over this period, provided we get a decisive mandate in the ensuing general elections, which will hopefully speed up decision making, and improve the investment climate and competitive efficiencies.

So what are our bull- and bear-case scenarios?

If everything falls into place – which, to us, has one-in-five odds – growth could rise much above 6.5%. On the other hand, if India misses a decisive mandate or a viable coalition after the battle of the ballot, a sustainable lift to growth won't materialise. The odds of being caught in the 5% rut then rise to around one in three.

Depending on where growth prints, the ramifications for businesses and the economy at large will be huge, as our report shows.

In this report, we look at the how and why of the slowdown, its implications on social objectives and the opportunity loss for India Inc. We begin with consumption, inarguably the strongest indicator of economic growth. For manufacturers of consumer goods and automobiles, who thrived on the consumption boom of the past decade, the medium-term looks far less opportune. Then we assess the social ramifications of slower growth by computing the loss in employment generation and the consequent setback to poverty reduction. The prognosis on this count, too, is unsettling.

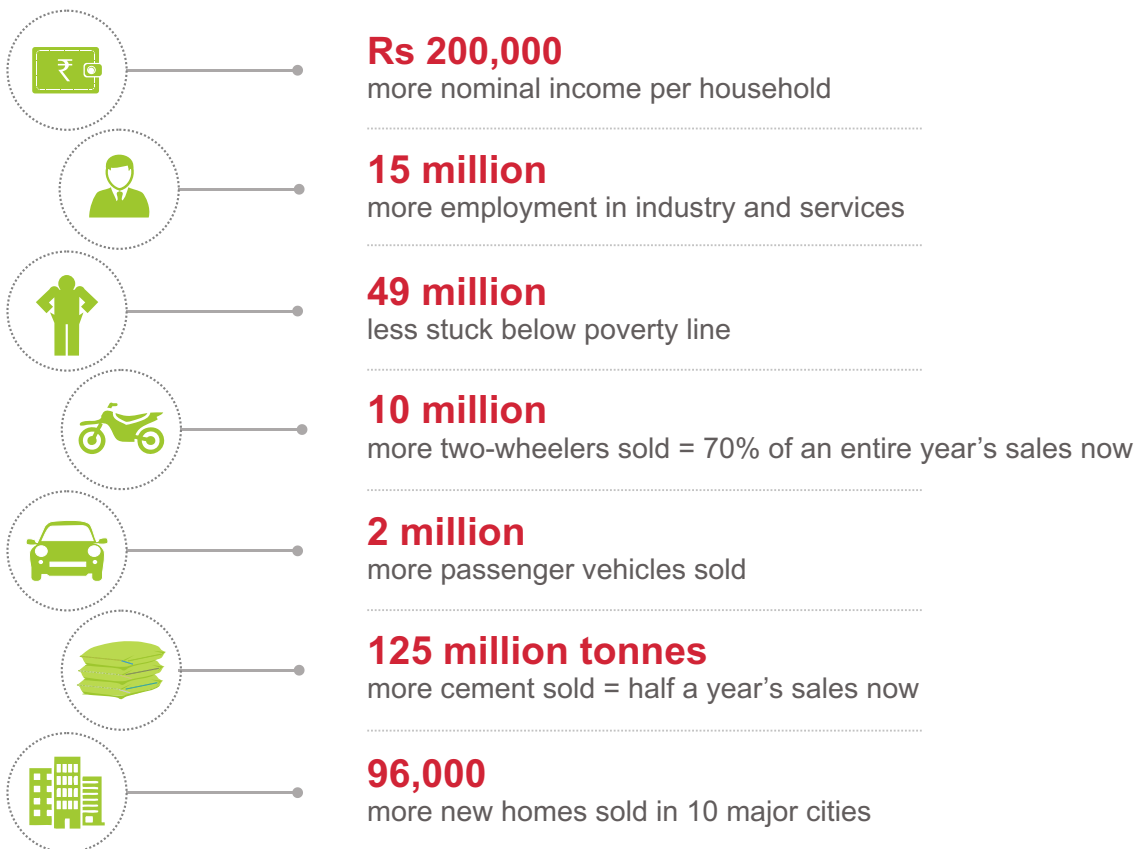
We delve deeper into the undercurrents next, and analyse growth by breaking it up into the contribution of labour, capital and efficiency. In our view, positive impulses in the next 5 years will come from some improvement in investment, more so in its efficiency. But these won't rebound to the levels seen in fiscals 2004-2011.

Policymakers and business leaders alike will find our analysis handy in spotting the likely trends in different growth scenarios and initiating remedial action. The message cannot be lost on anyone: India's journey towards inclusive development is getting longer and tiresome, and unless the potholes of policy stasis are paved in double-quick time, the aspirations of more than a generation will take a hit.



## THE DIFFERENCE GROWTH MAKES

Growing at 9% instead of 6.5% a year in the next five fiscals would mean





- India has a 50% chance of achieving 6.5% average GDP growth over the next five fiscals
- Achieving anything more is a one-in-five shot
- On the downside, there's a 30% chance growth could stay around current levels

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# CRISIL'S GROWTH OUTLOOK

## 2014-15 THROUGH 2018-19

**O**ur base-case forecast of an average GDP growth of 6.5% between 2014-15 and 2018-19 is premised on a decisive mandate in the upcoming general elections. Per se, election outcomes don't impact the economy beyond improving sentiment. What matters are the policies that follow. A decisive mandate will create an environment for speedy resolution of policy bottlenecks, hasten reforms and crank up investment efficiency.

An improvement in investment efficiency, which has fallen drastically over the last two years, is expected to kick in with faster project clearances, implementation of stalled infrastructure projects and resumption of mining activities. This, in turn, will support investment growth, especially when demand – both domestic and global – begins to rebound, improving capacity utilisation, thus laying the foundation for India's entry into a phase of healthier growth.

So the task before the new government is laid out clearly – the focus has to be on improving the efficiency of the economy by debottlenecking it. The evolving investment dynamics, however, show that neither a surge in investments nor improvement in efficiency witnessed during fiscals 2004-2011 (which led to near 9% GDP growth) would repeat in the next five years. In short, there is a natural limit to any upside beyond 6.5%. And if government formation after the forthcoming general elections becomes a messy affair with no clear mandate, our bets on growth are off.

*For details of the growth outlook, please refer to the chapter 'Why The Growth Upside is Limited'.*

**Chart 1: Grinding up**



Note: \*Advance estimates, F-CRISIL forecast  
Source: Central Statistical Office (CSO), CRISIL Research

- Faster economic growth typically leads to a sea-surge in consumer demand. At 9% growth over the next 5 years, compared with 6.5%, 2 million more cars and 10 million more two-wheelers would be sold, among other things
- With 9% growth, the number of people below poverty line could have fallen to 177 million at the end of fiscal 2019, compared with 269 million at the end of fiscal 2012. At 6.5%, that number will likely print at 226 million
- As many as 15 million more non-farm jobs would have been created over the next five years with 9% growth

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IF WE  
MISS THE  
OPPORTUNITY...

In the context where the International Monetary Fund (IMF) has predicted around 4% global growth for calendar years 2014-18, CRISIL's 6.5% growth estimate for India appears pretty decent. Of the 188 countries that the IMF has forecasts for, 151 are expected to lag India over the next five years.

However, for a country with 269 million people living below poverty line, which needs to provide jobs to its exploding labour force, and where the per-person income is below \$4 a day (or \$1,500 annually), 6.5% is just not enough. By not doing enough to accelerate growth, and thus job creation, India risks setting off a vicious cycle of lower household income, consumption and investment spending that would be so much harder to shake off – not to mention the utter loss of the demographic dividend.

The missed opportunity comprises all the incremental improvements we could achieve on different parameters if we grew at 9% a year as against our base-case expectation of 6.5% or lower. And what a miss it would be, if the following scenarios hold:

### **Demand wilts, fewer goods are sold**

Our base-case GDP growth estimate of 6.5% over the medium term amounts to a “missed opportunity”, or loss of additional demand for a variety of goods compared with what a faster rate of growth, say 9%, could have engendered. To begin with, it amounts to Rs 200,000 less

income per person (in nominal terms) over the next five years. If we potter around 5%, as we are now, the missed opportunity will be greater.

As such, sales of consumer items have taken a huge beating in the last 2-3 years. Consumption growth has printed dismally because the slowdown reduced incomes and discretionary spending.

That's a big climb down from the growth years (fiscals 2004 to 2011), when private consumption surged an average 8% a year. Rural incomes were healthy and in urban areas, the skilled workforce enjoyed steep wage hikes. This rising income engendered greater affordability and a boom in retail credit, while inflation and interest rates stayed relatively benign. This benefited sectors such as automobiles, consumer durables and housing where sales seemed on steroids. Indeed, a game changer it was for India Inc.

But that high-growth phase won't return soon – not in the next five years at least. What will be the loss because we can't return to those halcyon days? Take a look:

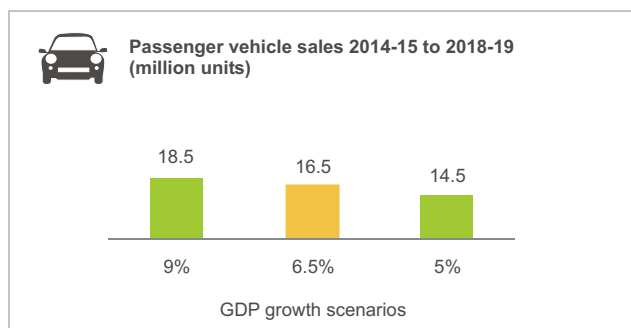
### **Automobiles**

Automobile manufacturers will bear the hardest blow as consumer offtake slows. Our estimates indicate the impact will be more or less secular, with passenger vehicle makers bearing the brunt.

**a. Passenger vehicles:**

We estimate that some 16.5 million passenger vehicles (cars, utility vehicles and vans) will be sold over the next five years. This number would have been 18.5 million had GDP grown at 9%. The missed opportunity, therefore, is around 2.0 million, which is equivalent to sales estimated for the whole of fiscal 2014 for the passenger vehicle segment. And if the economy meanders around 5%, the opportunity loss will be far greater at 4 million.

**Chart 2: The sales picture**



Source: CRISIL Research

Our sales projection for passenger vehicles is premised on three factors:

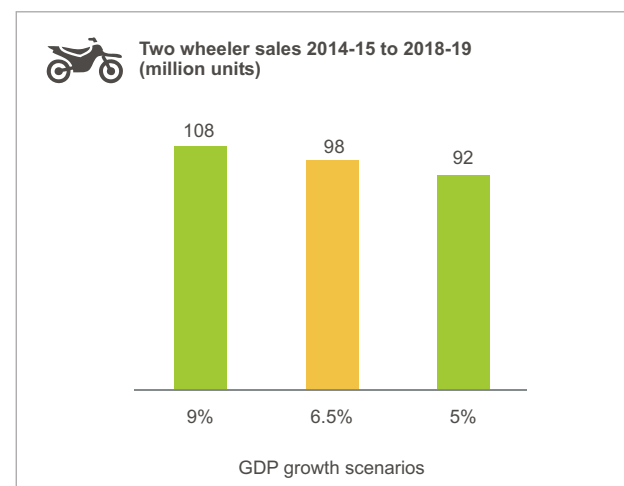
- Ability of households to purchase vehicles, which will improve as incomes rise with a pick-up in GDP growth
- Cost of ownership will increase at a slower pace than in the past as crude oil prices are expected to stay soft

- Wealth effect kicking in as consumer confidence increases on better income visibility following policy certainty and a stable government at the Centre.

**b. Two-wheelers:**

For two wheelers, the sales volume loss for not growing at 9% amounts to 10 million in the base case, yet it is the only segment where sales over the next 5 years will rise faster than what was seen in the high-growth phase. This would be driven by scooter demand in the urban and semi-urban areas owing to improving fuel efficiency, efforts to expand the market beyond women, and expansion of distribution network.

**Chart 3: The sales picture**



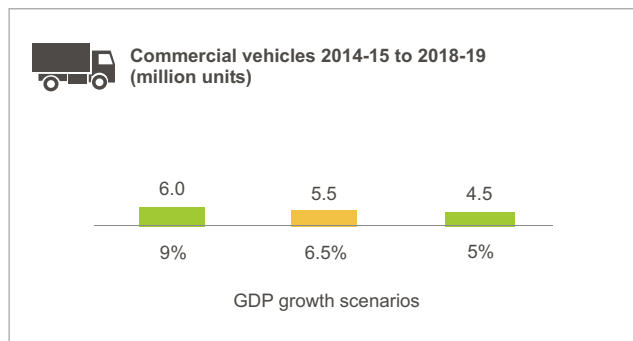
Source: CRISIL Research

On the other hand, growth in the sales of motorcycles will be modest, driven by rural demand and replacements in urban areas.

**c. Commercial vehicles:**

In the commercial vehicles segment, relatively sluggish growth in industry and a shift in preference towards higher tonnage vehicles will keep the sales muted. If the infrastructure and mining sector is able to overcome the numerous obstacles, it will give a major fillip to commercial vehicles demand.

**Chart 4: The sales picture**



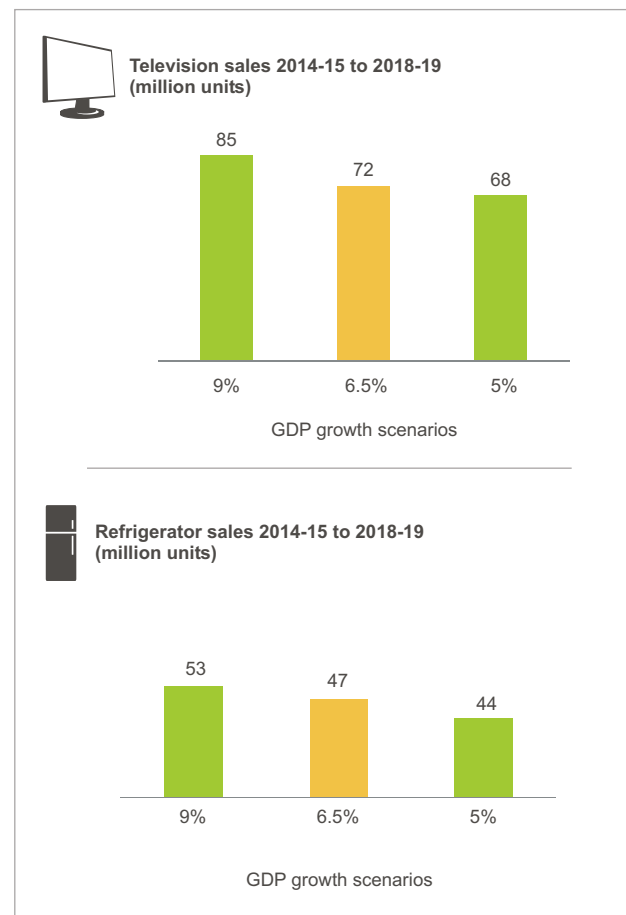
Source: CRISIL Research

**Consumer durables**

The last two years have seen very weak sales in consumer durables. Over the next five, volumes will see a pick-up from the current lows as income prospects improve and the addressable market expands. Growth, however, will be relatively modest. Compared with 9%,

GDP growth at 6.5% will mean sales of televisions will be fewer by 13 million, refrigerators by 6 million, washing machines by 3 million and air-conditioners by 6 million.

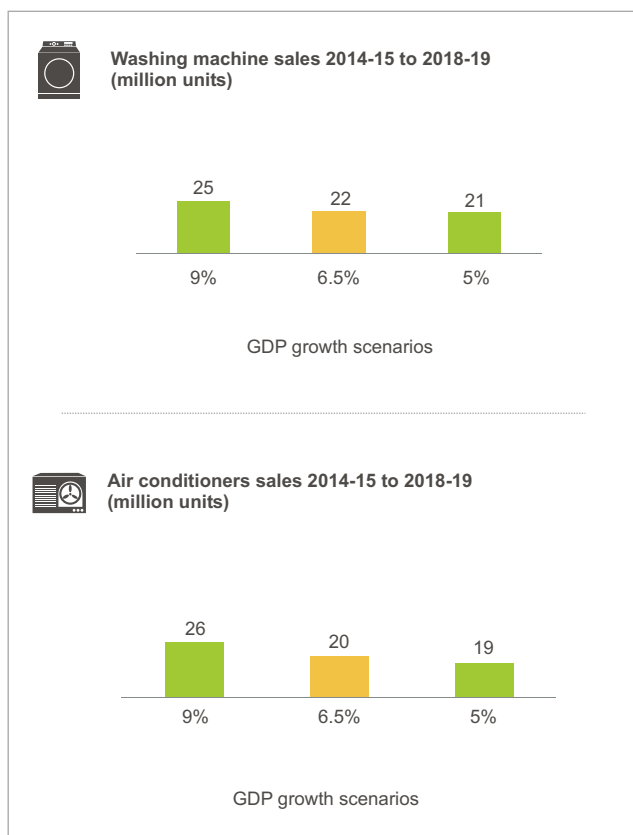
**Chart 5A: The sales picture**



Source: CRISIL Research



**Chart 5B: The sales picture**



Source: CRISIL Research

For television sets, the driver will be replacements, which currently account for 55% of all demand. Television penetration is close to 80% in urban areas and around 27% in rural areas.

For other household appliances such as refrigerators and

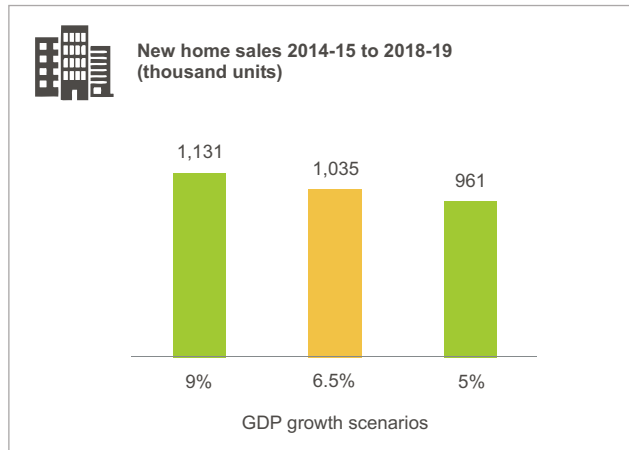
washing machines, while sales will rise on better income prospects, rapid demand expansion is unlikely due to structural constraints such as non-availability of reliable power and on-tap water in the rural areas. As such, only a quarter of Indian households own a refrigerator and a bare tenth, a washing machine. The penetration of air-conditioners is even lesser at 22% in urban areas, so it is difficult to forecast a spike in offtake just yet.

### Housing

Demand for new homes in the 10 major cities has fallen around 6% annually over the past couple of years, mainly due to higher interest rates and reduced affordability. The participation of investors in residential house purchases has dropped, too, and in cities like the National Capital Region (NCR) and Ahmedabad, investor exits have put capital values under pressure. For a pointer, new home sales during 2013 was down 29% compared with the peak seen in 2007.

We see demand reviving in key cities such as Pune and Bengaluru over the medium term, led by end-users. But the feel-good of the high-growth years is unlikely to return anytime soon. Our estimates suggest a good 1.13 million units would be sold in 10 major cities over the next 5 years if India manages to log 9% GDP growth and just over 1.03 million units at our base-case projection of 6.5%. The missed opportunity in growing at 6.5% and not 9% thus works out to around 96,000 less new homes sold in 10 major cities. If, instead, growth printed around the current 5% level, this gap would widen to as much as 170,000 less new homes.

**Chart 6: The sales picture**



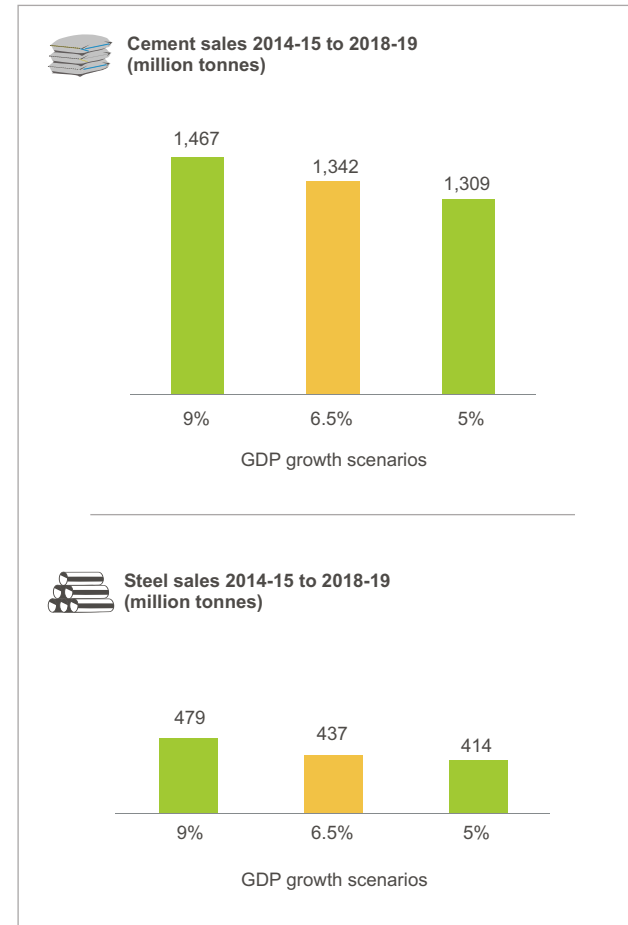
Note: Estimates for 10 major cities\* only  
Source: CRISIL Research

### Cement and steel

A slower economy will also curb demand for steel and cement, which had hit unprecedented highs during fiscals 2004-2011 on the back of near-double-digit industrial growth and housing boom. Growth has more than halved since then. Predictably, therefore, the missed opportunity is greater here - 125 million tonnes of cement and 42 million tonnes of steel.

Particularly vulnerable to cyclical swings is non-housing demand -mainly infrastructure and industrial construction

**Chart 7: The sales picture**



Source: CRISIL Research

Note: \*10 major cities include Delhi-NCR, Mumbai, Kolkata, Hyderabad, Bengaluru, Chennai, Pune, Kochi, Ahmedabad and Chandigarh.

projects - for cement (accounting for around 45% of total cement demand) and long steel (constituting around 50% of total steel demand). During the current and previous fiscal, demand for cement grew less than 3% and for steel under 5%. But we expect the scenario to improve from the next fiscal.

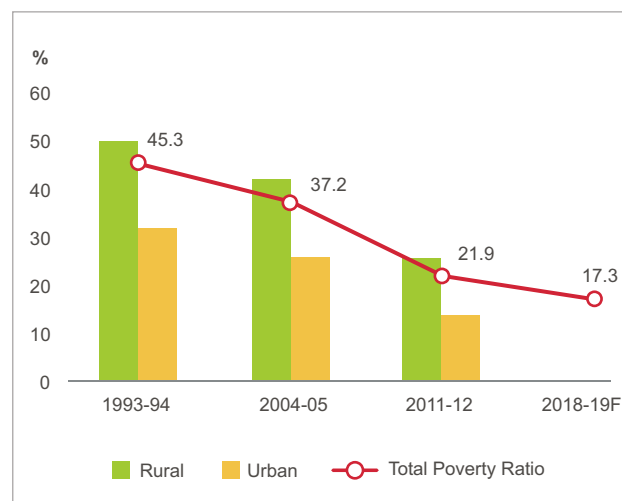
### As growth slows, it gets harder to fight poverty

India has made significant progress in reducing poverty over the last two decades. Assuming the current pace continues, we are set to achieve the Millennium Development Goal for poverty reduction, which is to halve the proportion of people below the poverty line between 1990 and 2015 (in purchasing power parity terms).

In fiscal 2012, one in five Indians was below the poverty line<sup>1</sup> compared with one in two in 1994. The substantial improvement was primarily because of high economic growth. That script is changing, so now we estimate the poverty ratio to decline to just 17.3% by fiscal 2019 from nearly 22% in fiscal 2012. This implies only 6.2 million people will be pulled out of the morass annually over the next five years compared with 20 million between fiscals 2005 and 2012 (*Chart 9*).

With 9% growth, India's poverty ratio<sup>2</sup> would have declined sharply to 13.6% by fiscal 2019, pulling as many as 49

**Chart 8: Poverty ratio to decline to 17.3% by 2019**



Note: F-CRISIL estimate

Source: Planning Commission, CRISIL Research

million more people (close to 18% of the current number of poor) out of destitution. Conversely, assuming 5% GDP growth would mean the ratio would moderate to just 19.6%.

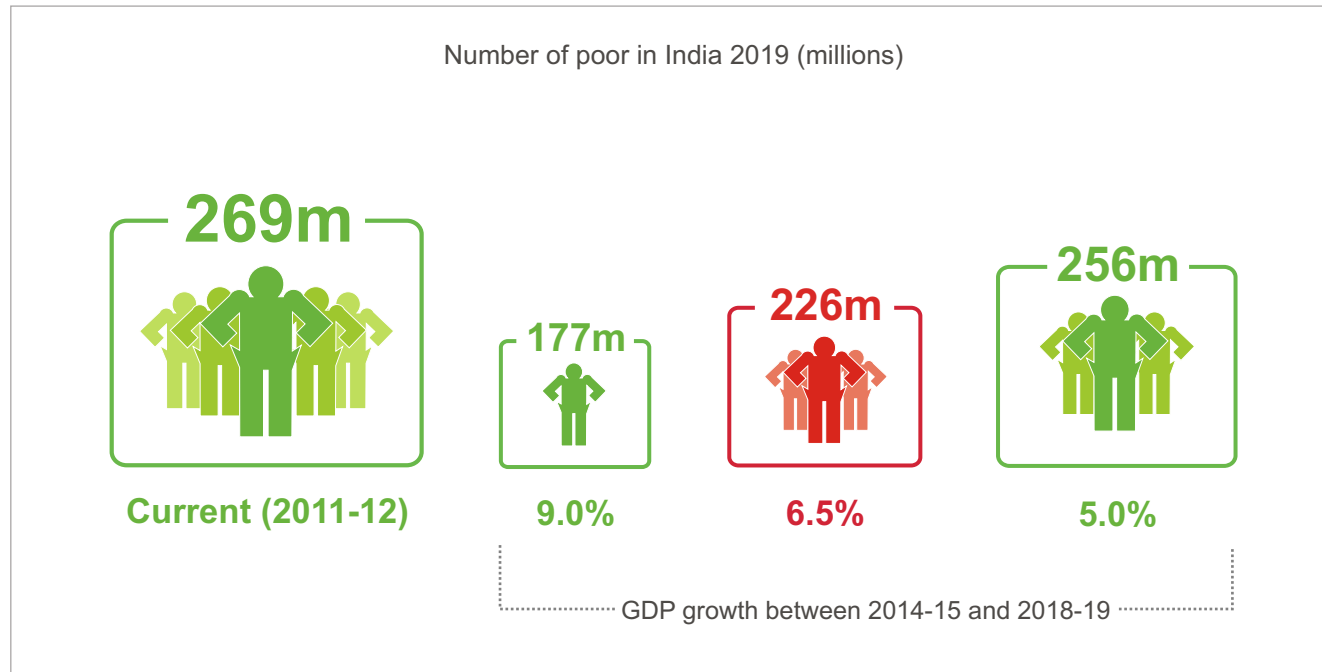
### What does history tell us about poverty reduction?

Historical evidence supports a strong correlation, and non-linear relationship, between poverty reduction and GDP growth in India. The poverty ratio declined sharply

<sup>1</sup>This is defined by the Planning Commission based on per-capita monthly expenditure surveys conducted every five years. The latest poverty line (fiscal 2012) is calculated at Rs 816 (\$13) per person in rural areas and Rs 1,000 (\$16) in urban areas for monthly expenditure

<sup>2</sup>Poverty ratio - the number of people below the poverty line as a share of its total population

Chart 9: Indulging indigence



Note: We assume poverty elasticity of growth to be 0.5% in our base case scenario, 0.7% in the optimistic case and 0.3% in the pessimistic case.  
Source: National Sample Survey Organisation (NSSO), World Bank, Census India, CRISIL Research

between fiscals 2005 and 2012 (*Chart 8*), falling an average 2.2 percentage points a year. Average growth during this period printed over 8%. Compare that with a paltry 0.7 percentage point annual reduction in the ratio seen between fiscals 1995 and 2004. Growth was much lower during this period around 6%.

Another reason for the more recent phase of poverty reduction is the rise in government expenditure on social programmes. This resulted in employment in the construction sector more than doubling to 50 million in fiscal 2012 from 23 million in fiscal 2005 – 78% of which was in the rural areas. Workers who moved out of agriculture to construction, either on the same or higher wages, also led to an improvement in the income of all agricultural workers as a whole, as the labour-to-land ratio declined. Going ahead, slower growth will result in lower job creation and also limit the governments’ ability to spend on social schemes, reducing the pace of poverty reduction in the medium term.

### **With jobs scarce, millions more stay back on farms**

In the seven years to fiscal 2019, India’s working-age population would have swelled by over 85 million. Of these, 51 million would be seeking employment<sup>3</sup>.

With 6.5% average GDP growth, non-farm employment over this period will at best grow by 37 million. This means

an additional 14 million will be forced to either depend on low-productivity agriculture or remain unemployed<sup>4</sup>.

However, much of the increase in farm jobs will be disguised unemployment. That’s because, given insufficient job opportunities, labour force will not be able to migrate to the higher-wage, more-productive industry and service sectors.

Such a dismal situation would not arise if India were to grow at 9% over the next five years. Enough non-farm employment would then be created to absorb the entire incremental labour force within the industry and service sectors. Indeed, at 9% growth, it would even be possible to pull additional people out of agriculture.

This is exactly what was witnessed between fiscals 2005 and 2012 when the non-agricultural economy grew at an average 9.4% a year, increasing non-farm employment by 52 million. This was not only sufficient to absorb the incremental labour force but also facilitated migration, drawing out 37 million workers from the fields.

On the other hand, getting stuck in the 5% growth rut will aggravate India’s employment situation. Non-farm jobs will then increase by only 26 million – or half the estimated increase in labour force. In other words, either farm employment will expand by 24 million between fiscals 2012 and 2019 or there will be an increase in unemployment.

<sup>3</sup>Not everyone in the working age joins the labour force. For instance in 2011-12, only 58.3% of working-age population were in the labour force. Rest mostly include students, homemakers and others not seeking employment.

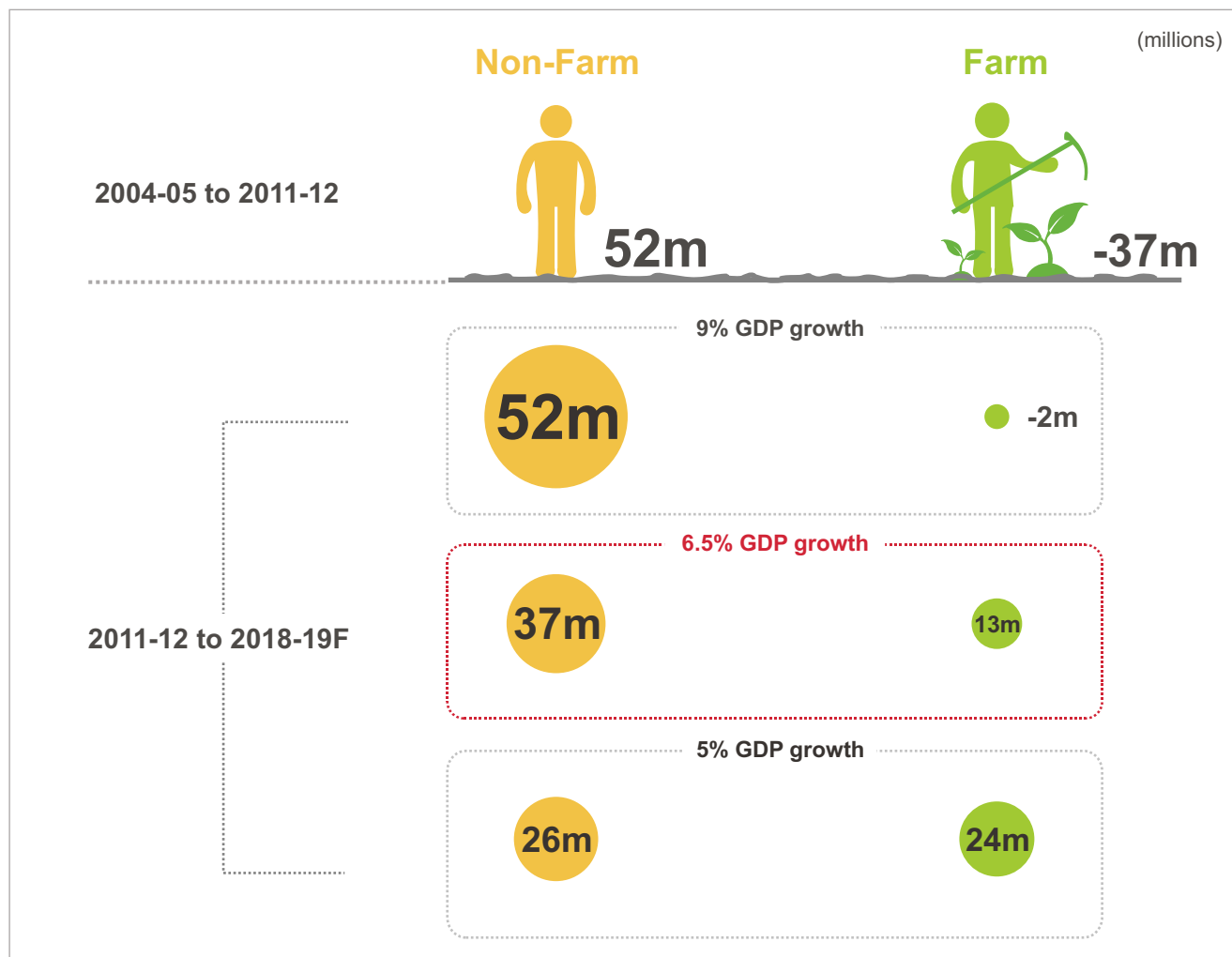
<sup>4</sup>Unemployment rate is assumed at 2.2%, same as 2011-12

Slower growth will mean a huge missed opportunity for millions who will have to per force stay on farms – or risk being unemployed. The difficulty in providing jobs would be compounded by declining employment elasticity, which is the percentage change in employment for every percentage point increase in GDP. It is one way to measure the ability of growth to generate employment. Between fiscals 2005 and 2012, employment elasticity in the non-farm sector fell from 0.53% to 0.38% during fiscals 2000-2005. There were two reasons for this:

1. GDP growth is now increasingly driven by the less labour-intensive services sectors such as IT/ITES, business and financial services. Since these require only 1 or 2 people to produce Rs 1 million of real value-added GDP, their higher growth does not create large-scale employment.
2. The capacity of labour-intensive sectors such as manufacturing to absorb labour has diminished considerably as complicated laws and technological progress have encouraged automation.

Net-net, GDP growth now generates far fewer employment opportunities in the non-agricultural sector than it used to a decade ago.

Chart 10: The trend in job additions

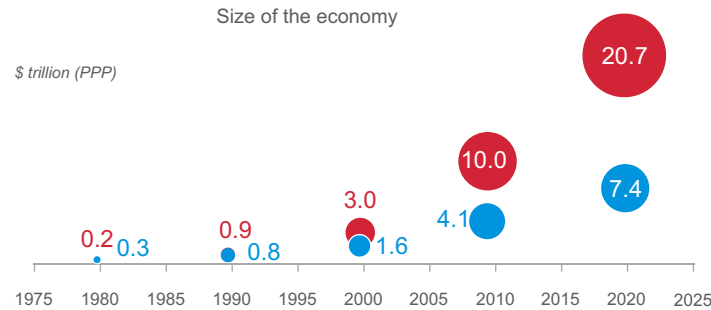


Note: F = CRISIL Research forecast. GDP growth scenario for fiscals 2015 to 2019. For fiscals 2012 to 2014, actual GDP growth is taken. Unemployment rate assumed at 2.2% (same as in 2011-12), which leads to a 1 million increase in the jobs. Source: NSSO, CRISIL Research

# What a difference high growth makes: comparing with China



● INDIA  
● CHINA



Source: IMF, CRISIL Research

## China wasn't always a bigger economy

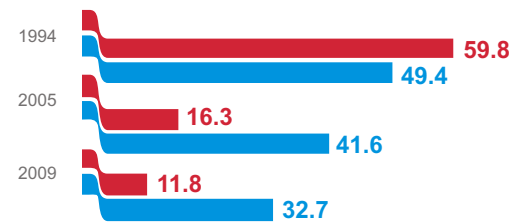
In 1960, the Indian economy was 1.75 times China's. By 2013, the Chinese economy had become 2.7 times India's. In purchasing power parity (PPP) terms, by 2018, the Chinese economy will be more than \$20 trillion, while India's will not even touch \$8 trillion.

## The benefits are for all to see

Higher the growth, faster is the increase in per-person income. And higher the affordability, more is the opportunity for businesses to flourish. China achieved a per-person income of \$9,000+ (in PPP terms) in 2012, as compared to \$3,800 (in PPP terms) in India.

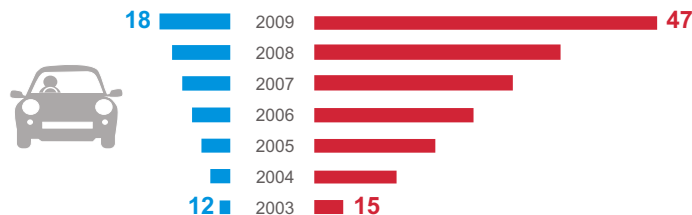
Higher GDP growth also results in faster reduction in poverty. For example, while China's poverty ratio was higher than India's by over 10 percentage points in 1994, by 2009, India's poverty ratio was over 20 percentage points higher than China's.

Poverty ratio (% of population)



Note: Poverty headcount ratio at \$1.25 a day (PPP)  
Source: World Bank

Cars (per thousand persons)



Source: World Bank

## The cars tell the story

In 2003, car sales in China exceeded India's by 2.1 million, but by 2010, the difference had risen to 7.5 million.

As a result of higher sales, in 2009, cars per 1,000 persons in China was nearly 2.6 times India's.





- In the high-growth phase of fiscals 2004 and 2011, both investment and its productivity picked up considerably
- Currently, investment has suffered and its productivity has completely collapsed
- Over the medium term, the impetus to growth will mainly come from an improvement in productivity of investment

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# WHY THE GROWTH UPSIDE IS LIMITED

**W**hen we say India has a 1-in-2 chance of achieving 6.5% average GDP growth over the next five fiscals, what factors do we believe will boost growth from the current levels? And why do we say that scope for further upside is limited?

The answers lie in the policy and regulatory environment in the country – the business climate in which private firms operate. Not only does this environment determine increases in factor inputs – labour and capital – but also influences the efficiency with which the two are combined in the production process, resulting in growth or a lack thereof.

India's economic growth has printed below 5% for two years on the trot - due to inefficient use of factor inputs, especially capital. Not only has investment slowed down, but its productivity has also declined sharply. The deteriorating business climate – regulatory hurdles, uncertainty about economic policies, cost of credit and slowing consumer demand included, which has eroded the productivity of existing capital and halted new investments – stands to blame.

The way out of this downturn, therefore, is by addressing these issues. To be sure, there are signs the process is about to begin. If the current momentum on project clearances continues and results into the completion of stuck projects, capital efficiency will rise. This will invite more investments and lead to capital accumulation. How much productivity picks up and accumulation of capital happens over the next five years will determine the overall growth rate of the economy.

A decisive mandate is expected to hasten pending reforms such as the implementation of the Goods and Services Tax (GST), provide clarity on land acquisition and environmental clearances, and ensure better fiscal and monetary policy coordination. This will improve private sector sentiment. In addition, significant cleansing of bank balance sheets (distressed assets sales + capital infusion) and improvement in the process of asset-quality recognition and monitoring of concentration risk at banks will be critical.

All the theses, however, get upended if a fractured mandate in the upcoming elections leads to coalition compromises and ineffective governance.

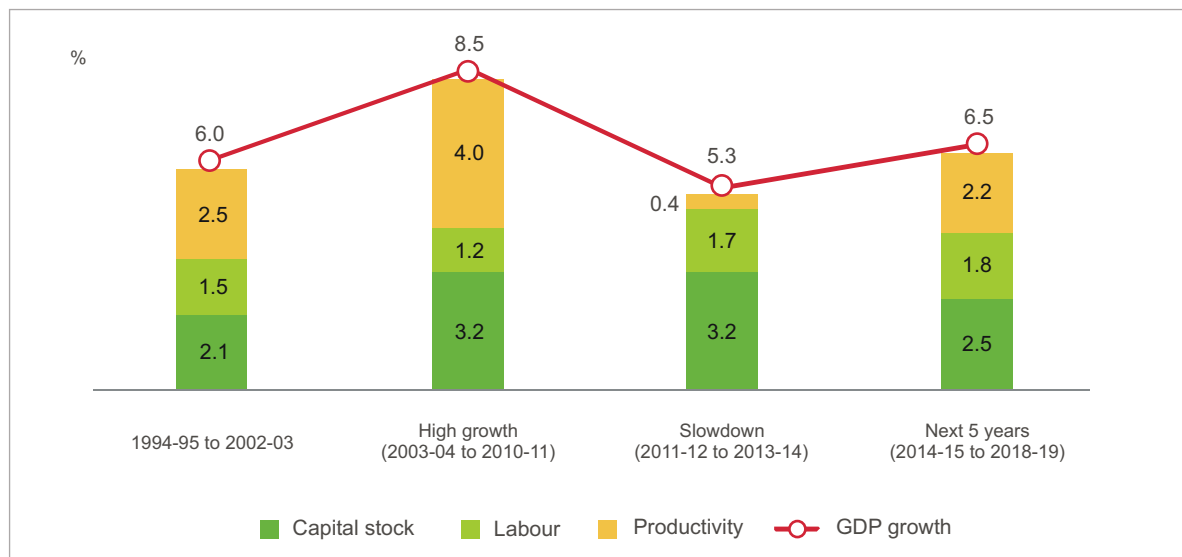
### The 6.5% argument

We believe an improvement in the domestic business climate and confidence after the general elections, along with conducive macros will lift capital productivity, which, in turn, will take GDP growth to 6.5% levels.

The conventional growth accounting framework (See *Page 31*) helps explain economic growth by decomposing it into contributions of factor inputs (labour and capital), and a residual measure of gains in efficiency (total factor productivity, or TFP).

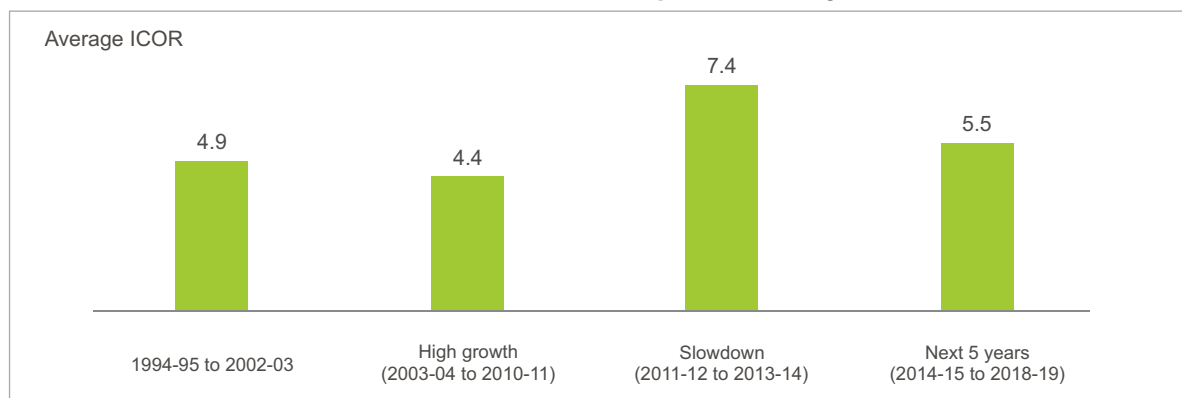
Our analysis suggests that in the high-growth phase between fiscals 2004 and 2011, all the three factors had picked up simultaneously. A virtuous cycle of surge in investment and productivity had led to a faster rate of

**Chart 11: Contribution of labour, capital and productivity to GDP growth**



Source: CSO, CRISIL Research

**Chart 12: Worsened capital efficiency**



Note: ICOR-Incremental capital output ratio is calculated as the ratio of fixed investment to incremental GDP at factor cost.F-CRISIL estimate  
Source: CSO, CRISIL Research

capital accumulation as the economy expanded at 8.5% annually. Capital stock had grown at a higher rate of 9% compared with 5.8% between fiscals 1995 and 2003. Investments outpaced GDP growth, lifting the investment rate from 27% of GDP to 37% between fiscals 2004 and 2011.

The distinguishing feature of the high-growth phase, however, was a sharp pick-up in TFP growth, indicating the surge in investment was accompanied by rising productivity.

This was reflected in an improvement in the incremental capital output ratio, or ICOR, which measures the fixed investment required to produce an additional unit of output. Lower the ICOR, higher the productivity of capital. ICOR fell to a low of 4.4 (*Chart 12*) during the high-growth phase, while TFP growth jumped to 4%.

But during the recent downturn (fiscals 2012 to 2014), the contribution of capital stock to GDP growth has remained the same, while the contribution of TFP growth to overall GDP growth has fallen sharply (*Chart 11*).

In fact, in the last two of these three years, TFP growth has been negative, thereby pulling down GDP growth. The falling productivity has reflected in a worsening ICOR, which averaged 8 during these two years, nearly double the levels seen in the high-growth years – indicating the efficiency of capital has halved since then.

The sharp pick-up in TFP growth between fiscals 2004

and 2011 was the result of a host of economic reforms prior to and during the period – reforms that made it easier for private businesses to start off, operate and raise funds. These reforms improved business confidence and triggered better resource management, supported by increased use of IT/ITES services.

Liberalisation of external commercial borrowing rules led to higher foreign direct investment during this phase and encouraged technology upgradation across industries. Overall, the improved investment climate lifted productivity and competitiveness of India's industrial and services sector.

In addition, as economic growth picked up – averaging 8.5% between fiscals 2004 and 2011 compared with 6% in the fiscals 1995 to 2003, capacity utilisation in industry also rose to meet demand. This cyclical factor also helped raise TFP growth during this period.

### **Productivity growth set to rise....**

We believe TFP growth is set to rise going ahead and will reflect into an improvement in capital productivity (lower ICOR) from the current levels. The factors that influence trends in TFP growth are largely three:

1. Policy-related factors that have led to deterioration in investment climate and lowered business confidence;
2. Cyclical factors that lowered capacity utilisation particularly in the manufacturing sector; and,

3. Structural factors such as longer gestation infrastructure projects where output significantly lags the initial investment.

The most binding constraint on capital productivity at present is policy-related regulatory steps taken to curtail misappropriation highlighted by recent scams which has slowed the process of decision making in government and thrown into doubt a number of investments. Particularly affected are sectors such as mining, construction and other infrastructure developments involving huge investments in projects under implementation or proposed projects that are yet to receive clearances. In addition, there is high leverage and debt-servicing burden and now assets are turning bad. For instance, according to the Reserve Bank of India, the share of infrastructure loans in total advances is the highest at close to 15% while its share in total stressed assets is almost 30%.

Progress on project clearances visible in recent months will enable completion of currently stalled projects and improve the efficiency of capital locked into them. The Cabinet Committee on Investments, set up in 2012 to expedite project clearances, has already (as of end-January this year) cleared 296 projects worth Rs 6.6 trillion.

Resolution of mining issues will address iron-ore and coal supply shortages and improve the productivity of sectors such as steel and power where investments are currently underutilised due to inadequate raw material linkages. Progress on these policies has already begun. The mining ban has been lifted in Karnataka and mining output should gradually increase as firms obtain relevant clearances and ramp up production.

With policy-related bottlenecks resolved at least partially,

**Table 1: The efficiency calculus**

	1995-2003	2004-11	2012-14	2015F-19F
Real GDP growth (average y-o-y%)	6.0	8.5	5.3	6.5
TFP growth (average y-o-y%)	2.4	4.0	0.4	2.1
ICOR (average)	4.9	4.4	7.4	5.5
GFCF growth (average y-o-y%)	7.6	12.9	4.4	5.5

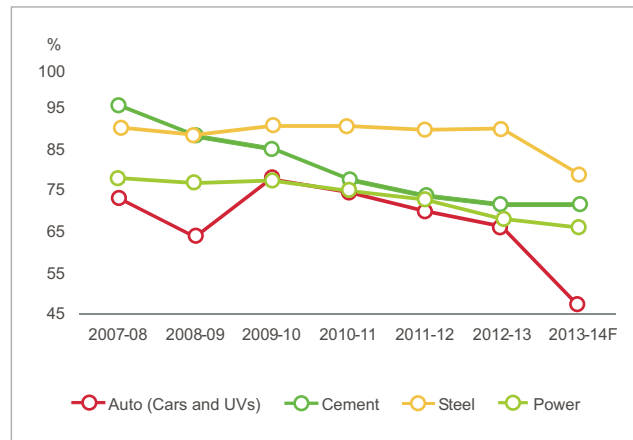
*Note: F-CRISIL estimate*

*Source: CSO, CRISIL Research*

the cyclical factor - weak consumption demand - which has pushed down the productivity of existing investments due to underutilization, will also become favourable.

Household demand has weakened dramatically in recent years with private consumption growth slumping to 4.1% in fiscal 2014, from 5% in fiscal 2013 and 9.3% in fiscal 2012. As a result, capacity utilisation rates, too, have tanked across sectors, falling below 75% in a few and as low as 45% in the automobile sector. Demand slowdown has especially affected consumption-driven sectors such as auto, consumer durables, fast-moving consumer goods, construction and real estate.

**Chart 13: Drooping capacity utilisation**



Note: F-CRISIL estimate  
Source: CRISIL Research

Implementation and completion of stalled projects will help create employment, lift income growth and aid a gradual recovery in private consumption demand.

At the same time, external demand is set to improve as global recovery gathers momentum. The IMF in October forecast advanced economies will grow at 2.4% annually over the next 5 years, compared with a 0.8% average annual growth over the last 5 years.

Higher demand, both domestic as well as external, will improve capacity utilisation rates and hence, will reflect in productivity gains, and lower ICOR.

Once the implementation of stalled projects and an improvement in household demand is seen, the investment cycle will begin to revive. Over the next five years, investment growth is expected to be an average 5.5% per year compared with nearly no growth during the current and last fiscals.

**...but the gains will be limited**

Though policy-related and cyclical factors are set to turn favourable in the coming years, structural factors will limit an improvement in TFP growth beyond 2.2%, and therefore, the reduction in ICOR from the current highs will also be limited to 5.5 between fiscals 2015 and 2019 (Table 1).

The nature of investments in the economy has changed considerably. In the recent past, manufacturing investments have slowed but infrastructure investments - which are typically long-gestation and take time to yield returns, have grown at a quicker pace. For instance, manufacturing sector investments grew by an average 1.5% between fiscals 2009 and 2012, while infrastructure sector investments (electricity, gas, water supply, construction and mining), grew over 9% (*Chart 14*). In fiscal 2012, as manufacturing sector investments fell 9%, infrastructure investments continued to rise at nearly 11%.

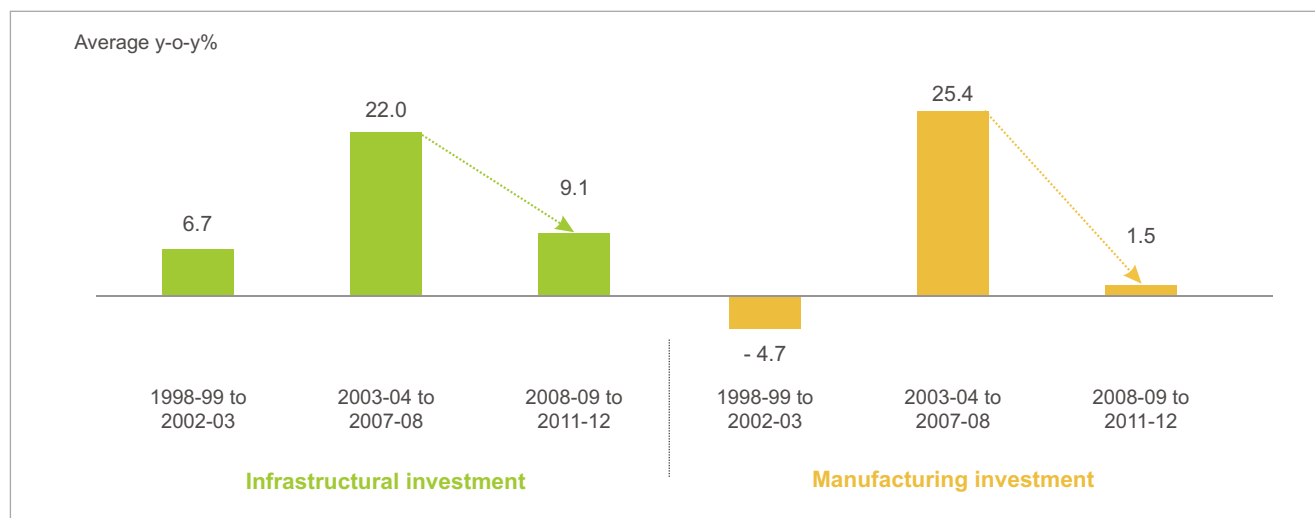
As a result of the limited upside to productivity growth over

fiscal 2015 to 2019, while GDP growth will rise from below 5% currently, it is unlikely to cross 6.5%.

In fact, if progress on the policy front, which is expected to improve the investment climate in the economy, does not manifest as envisioned, growth could slip to an average 5% over the next 5 years. The cost of policy inaction would thus be very high for the economy.

Among other factors, slower-than-expected recovery in the US and the Eurozone and/or a severe failure of monsoons in 2-3 years could also lower growth below our forecast.

**Chart 14: Not a pretty sight**



Source: CSO, CRISIL Research

## The growth accounting framework

The growth accounting framework decomposes GDP growth into three sources

- i. An increase in higher quality-adjusted labour force,
- ii. An increase in capital stock (equipment and machinery), or
- iii. Total factor productivity, measures how efficiently the economy uses capital and labour to produce growth. It is estimated as a residual after accounting for the contribution of growth in labour and capital.

In this framework GDP growth thus, can be accounted for, as follows -

$$Y = AK L_*^1 \dots\dots\dots(1)$$

Where,

*Y* is real GDP

*A* is the total factor productivity

*K* is the capital stock in the economy

$$K_{t+1} = (1 - \delta)K_t + I_t$$

*δ* is the depreciation rate of capital stock

*I* is the level of investments

*L<sub>\*</sub>* is the quality adjusted labour force

$$L_* = L^{aS}$$

*S* is the average years of schooling;

Each year of schooling raises the average productivity of a worker by constant percentage 'a'

*α* is the returns to capital

*1-α* is the returns to labour

By taking the first derivative (·) with respect to time (t) of equation (1)

$$\dot{Y} = \dot{A} + \alpha \dot{K} + (1 - \alpha) \dot{L}_*$$

It is now widely recognised that, while accumulation capital and labour can raise growth for a while, productivity growth is the key factor for sustained growth, and thus understanding the factors influencing TFP growth becomes critical.



## Why a repeat of 9% is difficult

Apart from limited upside to productivity improvement over the next five years, what will hinder a return to the 9% growth path is the fact that other underlying factors, which once favoured high growth, are not as supportive as they were in the high-growth period of fiscals 2004-2011.

For one, the global economy is expanding at a relatively slower pace and therefore, the push to exports will be less strong. The pre-crisis growth phase saw the world economy expand by over 5% between 2004 and 2008. India's export growth was almost 25% average during that period, led by a rapidly expanding IT/ITeS sector, refined petroleum exports as well as manufacturing exports which were supported by domestic capacity expansion. In addition, in recent years, failure to address structural issues such as rising wage costs, lack of economies of scale and high domestic inflation have lowered India's export competitiveness vis-à-vis peers and limited the upside to growth.

Second, the accumulation to capital stock will take place at a relatively slow pace. We expect investment growth to rise from near zero in the last and the current fiscal to around 5.5% over the next five years. It will be significantly lower than the 13% average growth seen during the high-growth period. Huge capacities and a sluggish pick-up in household demand will weigh on manufacturing investments. Infrastructure investments, to some extent, will be deterred by financial constraints given the highly leveraged balance sheets of infrastructure companies.

Third, private consumption growth is unlikely to be as high and will not lead to record levels of capacity utilisation seen in the manufacturing sector during the high-growth phase. We expect private consumption growth, which averaged 7.6% during fiscals 2004-2011, to print around 5% over the medium term. Lower growth in private consumption will be led by slower growth in rural wages as fiscal spending will be restrained, moderate expansion of retail credit as incomes drag and higher interest rates aimed at bringing down inflation.

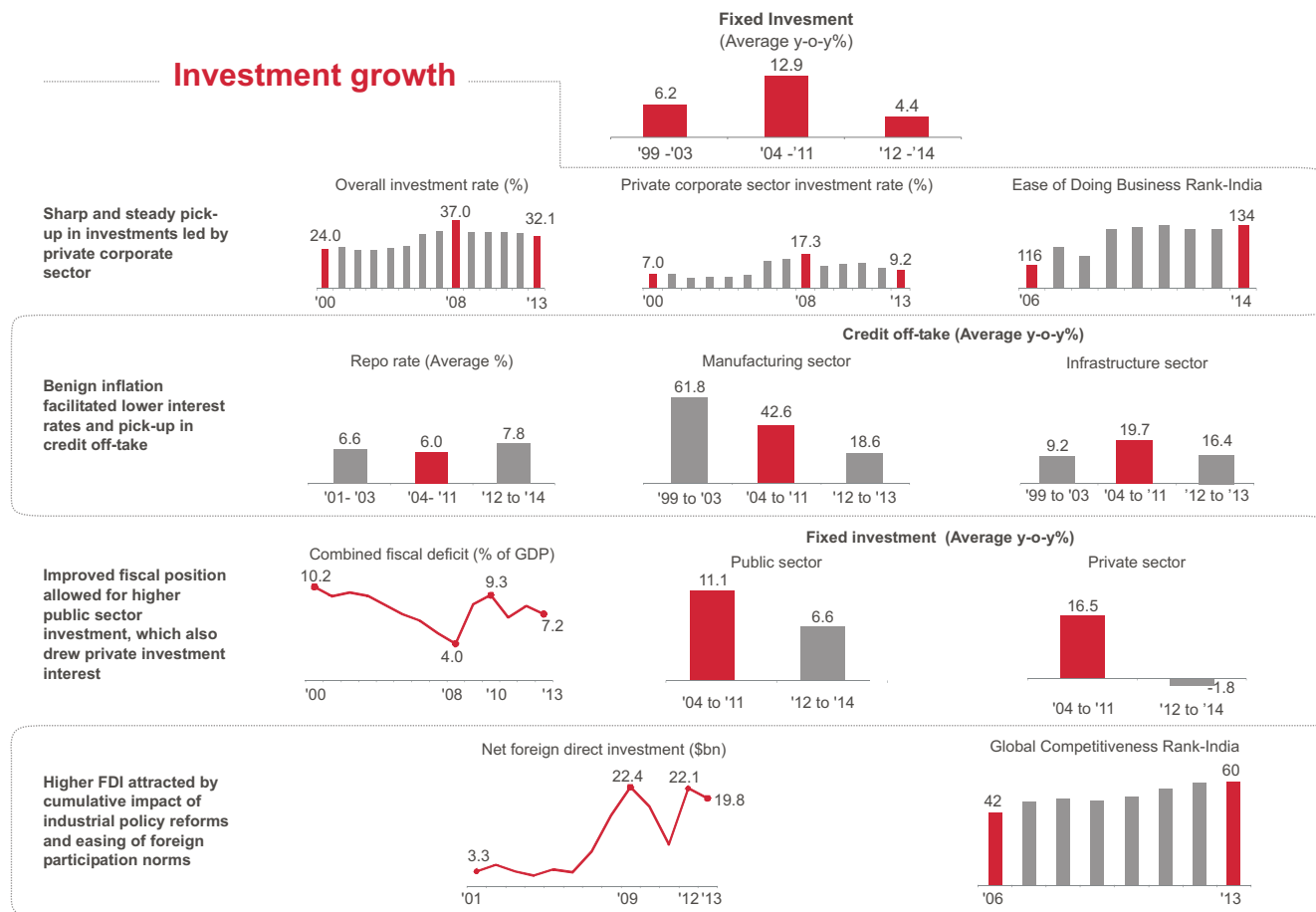
Fourth, the books of banks are replete with bad loans. This impairs their ability to aggressively finance growth till the time their balance sheets are cleaned. CRISIL Research estimates gross NPAs to rise to 4.4% of advances by March 31, 2014 - most of them emanating from the infrastructure-linked sectors. Accounting for assets restructured, the number rises to nearly 10%.

Finally, if we look beyond the next five years, unless pressing policy and implementation issues are addressed, even sustaining 6.5% growth would prove difficult. These include the National Manufacturing Policy, National Policy on Skill Development, labour market reforms and agriculture sector reforms.

## UNDERSTANDING THE DYNAMICS OF THE HIGH-GROWTH PHASE

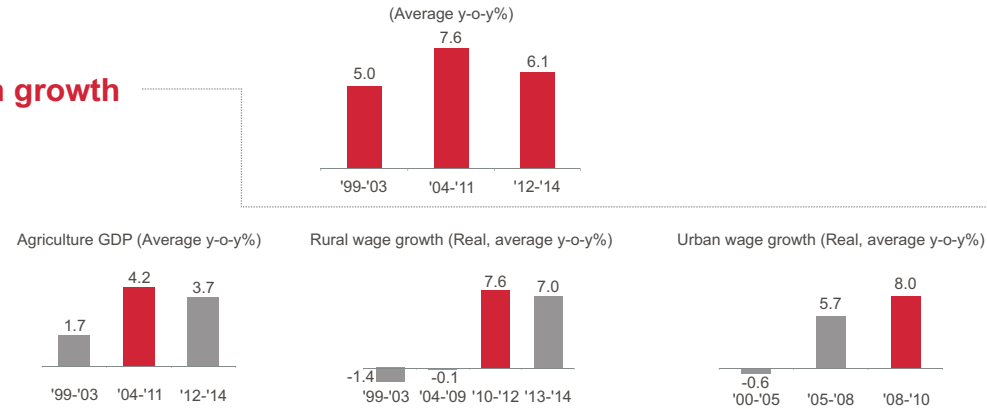
GDP growth of 8.5% between fiscals 2004 to 2011 was led by a surge in domestic and global demand. But, a favourable policy environment, the stage for which was set in the 1990s decade effectively supported the growth take-off during the initial years of this period. Consumption-focused policies of the government further helped to keep demand strong during the last two years of this period.

Adoption of financial sector reforms, rationalisation of tax structure and easing of barriers to trade, paved way for improving the domestic investment climate. India therefore, was in a much better position to benefit when global conditions turned favourable. Not only did these policies lift investor sentiment-both globally and locally, they also kept inflation, current account deficit and interest rates at sustainable levels. We take a look at the three drivers of growth:



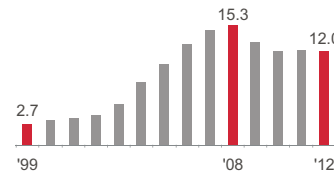
## Consumption growth

In addition to rural focussed government policies, 4 years of above-normal monsoon pushed agriculture GDP growth to 5% and helped boost rural consumption. Rising wages of skilled workforce supported urban consumption.



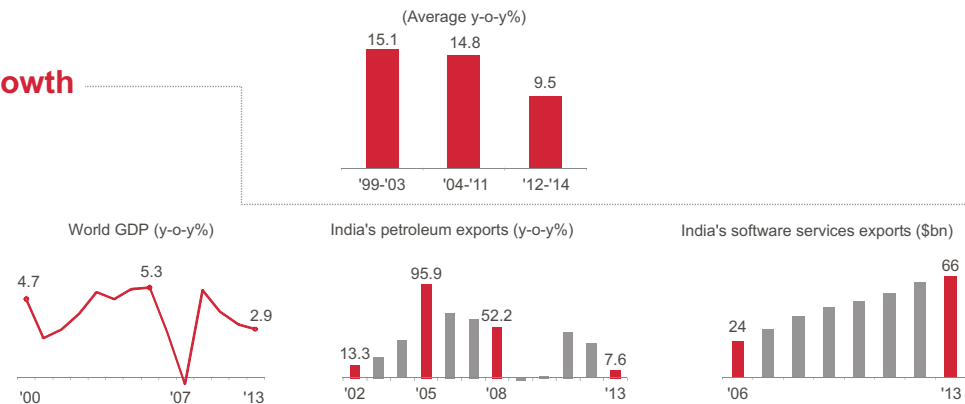
Improved wage prospects, low household leverage and banks' retail lending focus facilitated rapid consumer credit expansion. Retail loans grew 28% average during fiscals 2004 to 2011 and largely comprised loans taken for auto, housing, credit card and consumer durables

Household leverage (Retail loans to personal disposable income %)



## Export growth

Sharp pick-up in world GDP growth aided India's exports. Petroleum exports surged, led by fast expanding refining capacities and surge in global oil prices. Services exports too took off.





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# ANNEXURES

## Annexure I

**Table 2: GDP supply-side projections (y-o-y%)**

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15F to 2018-19F
Agriculture	9.0	0.2	5.1	4.2	5.8	0.1	0.8	8.6	5.0	1.4	4.6	3.0
Industry	7.3	9.8	9.7	12.2	9.7	4.4	9.2	7.6	7.8	1.0	0.7	5.1
Services	7.9	8.1	10.9	10.1	10.3	10.0	10.5	9.7	6.6	7.0	6.9	7.8
<b>GDP</b>	<b>8.0</b>	<b>7.0</b>	<b>9.5</b>	<b>9.6</b>	<b>9.3</b>	<b>6.7</b>	<b>8.6</b>	<b>8.9</b>	<b>6.7</b>	<b>4.5</b>	<b>4.9</b>	<b>6.5</b>

**Table 3: GDP demand-side projections (y-o-y%)**

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15F to 2018-19F
Private consumption	5.9	5.2	8.6	8.5	9.4	7.2	7.4	8.7	9.3	5.0	4.1	5.1
Government consumption	2.8	4.0	8.9	3.8	9.6	10.4	13.9	5.8	6.9	6.2	5.5	4.4
Fixed Investments	10.6	24.0	16.2	13.8	16.2	3.5	7.7	11.0	12.3	0.8	0.2	5.5
Exports	9.6	27.2	26.1	20.4	5.9	14.6	-4.7	19.6	15.6	5.0	8.0	10.8
Imports	13.9	22.2	32.6	21.5	10.2	22.7	-2.1	15.6	21.1	6.6	-1.6	7.0
<b>GDP</b>	<b>7.9</b>	<b>7.8</b>	<b>9.3</b>	<b>9.3</b>	<b>9.8</b>	<b>3.9</b>	<b>8.5</b>	<b>10.3</b>	<b>6.6</b>	<b>4.7</b>	<b>4.6</b>	<b>6.2</b>

Note: F-CRISIL forecast

Source: CSO, CRISIL Research

**Table 4: Missed opportunity 2014-15 to 2018-19**

	Levels			Missed Opportunity	
	9%	6.5%	5%	at 6.5%	at 5%
<b>Poverty (no. of poor in million)</b>	<b>177</b>	<b>226</b>	<b>256</b>	<b>49</b>	<b>79</b>
<b>Employment (in million)</b>					
Farm	229	244	255		
Non - Farm	294	279	268	15	26
<b>Industry (million units)</b>					
Passenger vehicles	18.5	16.5	14.5	2	4
Two-wheelers	108.0	98.0	92.0	10	17
Commercial vehicles	6.0	5.5	4.5	1	2
TVs	85	72	68	13	17
Refrigerators	53	47	44	6	9
Washing machine	25	22	21	3	4
Air conditioners	26	20	19	6	7
Housing (thousand units)	1,131	1,035	961	96	170
Cement (million tonnes)	1,467	1,342	1,309	125	158
Steel (million tonnes)	479	437	414	42	65

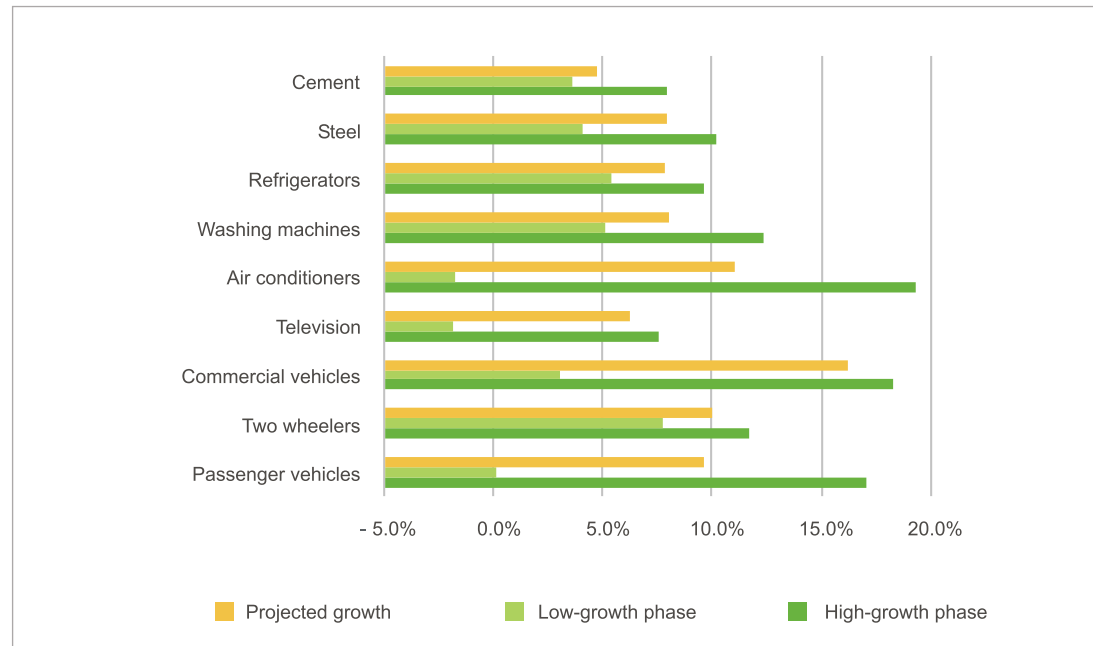
Source: CRISIL Research

## Annexure II

Sustained period of either high or low economic growth tends to have a non-linear impact on sales of both consumption-linked and investment-linked sectors. We have leveraged on our in-depth understanding of demand

drivers and patterns across various sectors as well as linkages with the macro economy and other sectors for forecasting demand over the next 5 years.

**Chart 15: Industry-wise average growth rates during different periods**



*Note: Growth rates are compound annual growth rates (CAGR). High-growth phase: 2003-04 to 2010-11, Low-growth phase: 2011-12 to 2013-14, Projected growth: 2014-15 to 2018-19*  
*Source: CRISIL Research*



For consumption-oriented sectors, the broad contours of the methodology was as follows:

- Forecasting income distribution by households taking into account projected income growth
- Estimating cost of ownership for the vehicle/durable
- Projecting how many households will have the ability to purchase a vehicle/durable taking into account the cost of ownership (these households would form the addressable market)
- Estimate population of vehicles/durables and current penetration levels taking into account age profile and scrappage levels
- Forecasting penetration of addressable households taking into account past trends and sector-specific idiosyncrasies
- Estimating annual sales based on age profile of stock and scrappage levels

The demand for investment-linked sectors such as cement and steel is projected taking into account:

- Contribution of each end-use sector to aggregate demand
- Projected growth in demand from each end-use sector
- Aggregating demand end-use sector wise to arrive at total demand

For example, for projecting flat steel demand, we considered demand emanating from automobiles, pipelines, construction, consumer durables, capital goods, and oil & gas sectors. Long steel demand was projected taking into account demand from infrastructure, industrial construction and capital goods sectors.

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