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India Manufacturing Barometer

Standing strong

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Foreword

The Government of India has been making efforts and addressing issues to improve the business environment in the country and boost manufacturing. The improvements in terms of the perspectives of various rating agencies and multilateral organisations towards India are indicative of the progress made so far. If this continues, the country is well poised to become the world's fifth largest manufacturer by 2020.

However, the manufacturing sector is yet to achieve sustainable growth, as is evident from the growth figures of the last few months. Growth remains fragile for the sector due to various factors that impact its competitiveness. At the same time, one cannot ignore the rapid technological advancements that are changing the manufacturing landscape across the globe. This is perfectly exemplified by what is called the fourth industrial revolution or Industry 4.0, which is going to shape the future of manufacturing technology. This pinnacle of innovation in the physical and digital worlds, which can render real-time control over the entire value chain, is leading to a plethora of both opportunities and challenges for the entire industry.

India Manufacturing Barometer, the survey conducted by FICCI and PwC Strategy&, has measured the expectations and opinions of major manufacturers on key facets related to the sector, with a special focus on its preparedness for Industry 4.0. The study highlights a stark contrast between the respondents' outlook towards the Indian and global economy, and brings out various areas of concern faced by the domestic industry. While we have taken steps in the right direction, we still have considerable ground to cover. I hope this report will help in addressing and prioritising the issues concerning manufacturing in the short term as well as the long term.

A Didar Singh
Secretary General, FICCI
April 2017

Preface

It gives us great pleasure to continue our association with FICCI in the manufacturing sector through the fourth edition of the India Manufacturing Barometer.

In times of global uncertainty, India continues to be a bright spot in the world economy. The manufacturing industry in India has shown resilience and is confident about its growth prospects amidst challenges such as unavailability of adequate raw material, pressure for increased wages and muted demand. The government, on its part, is determined to support the industry by undertaking policy reforms such as GST and enhancing public spending through infrastructure projects.

Companies are looking to increase their competitiveness by focusing on innovation—by launching new product and service offerings, boosting R&D spend and investing in newer technologies.

The Indian manufacturing industry has acknowledged the importance of Industry 4.0 and has now made it part of its long-term business strategy. Industrial companies in India are digitising their essential functions with a focus on achieving operational efficiencies, cost control and revenue growth. We believe a business transformation is underway as the manufacturing sector embarks on this digital journey.

My sincere thanks to the CXOs who participated in this survey, for giving us their valuable time and for sharing their thoughts with us.

I hope you find this report interesting and useful, and look forward to hearing any suggestions you may have.

Bimal Tanna
Partner and Leader, Industrial Products
April 2017

Economic climate

The outlook for the Indian economy and its core sectors continues to be upbeat. The overall economic climate remains favourable, even as the government plans to undertake large-scale policy reforms. Although bold decisions like demonetisation seem to have caused a short-term slowdown, the long-term prospects for the economy are promising. This is in spite of the fact that the global economic slowdown persists, global trade levels are going through their lowest phase and developed economies are struggling to maintain positive growth.

State of the global economy

According to the United Nations, in 2016, the world economy expanded by just 2.2%, the slowest rate of growth since the Great Recession of 2009. The sluggishness of the global economy is attributable to the feeble pace of global investment, dwindling world trade growth, flagging productivity growth and high levels of debt. World gross product is forecast to expand by 2.7% in 2017 and 2.9% in 2018.[1] This modest recovery is more an indication of economic stabilisation rather than a signal of a robust and sustained revival of global demand.

Investment growth has slowed significantly in many of the major developed and developing economies, as well as in many economies in transition. Protracted weak global demand has reduced incentives for firms to invest, while economic and political uncertainties and protectionist measures undertaken by some developed economies have fuelled global uncertainty and slowed down the pace of investment. As per PwC's 20th CEO Survey,[2] 55% of industrial manufacturing CEOs agree or agree strongly that it is becoming harder to balance competing in an open global marketplace with trends towards more closed national policies. Lack of access to finance has also acted as a constraint in some cases, especially in countries where banks remain undercapitalised or where financial markets are underdeveloped.

While governments in developed countries have made steep cuts in public investment, reflecting fiscal adjustment policies in response to high debt levels, many commodity-exporting countries have also curtailed investments in infrastructure and social services in response to the sharp loss of commodity revenue.

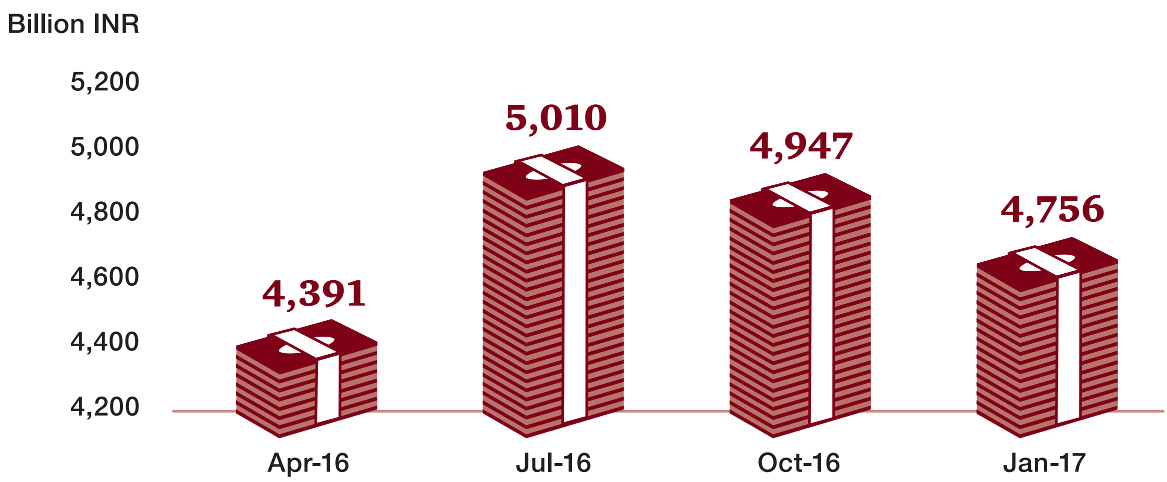
Given the close linkages between demand, investment, trade and productivity, the extended episode of weak global growth may prove self-perpetuating in the absence of concerted policy efforts to revive investment and foster a recovery in productivity. Despite these challenges, in PwC's 20th CEO Survey, 41% of industrial manufacturing CEOs are very confident about their company's growth prospects over the next 3 years.

State of the Indian manufacturing sector

Manufacturing has the potential to emerge as one of the high growth sectors in India. The Prime Minister's 'Make in India' programme focuses on placing India on the world map as a manufacturing hub and gaining global recognition for the Indian economy. India is expected to become the fifth largest manufacturing country in the world by the end of 2020, and the government has set an ambitious target of increasing the contribution of manufacturing output to 25% of gross domestic product (GDP) by 2025—this would be a 9% point increase from the current level of 16%.[3]

GDP from manufacturing in India reached an all-time high of 5,010 billion INR in the second quarter of 2016–17. This happened due to an enormous push by the government to open up the economy. The foreign direct investment (FDI) limit has been increased in 15 sectors, and a push to increase ease of doing business, along with a rapidly growing consumer base, has boosted investor confidence. Further, the implementation of goods and services tax (GST) will create a pan-India common market of 2 trillion USD GDP with 1.2 billion people, which again will be a big draw for investors.

Exhibit 1
India GDP from manufacturing sector in FY16–17



Source: Central Statistical Organisation

Rising labour cost and a transition from investment-led growth to consumption-led growth in China are presenting another opportunity for India. Is our manufacturing sector ready to seize this opportunity, leverage it and make the transition from assembly-led manufacturing to design-led manufacturing?

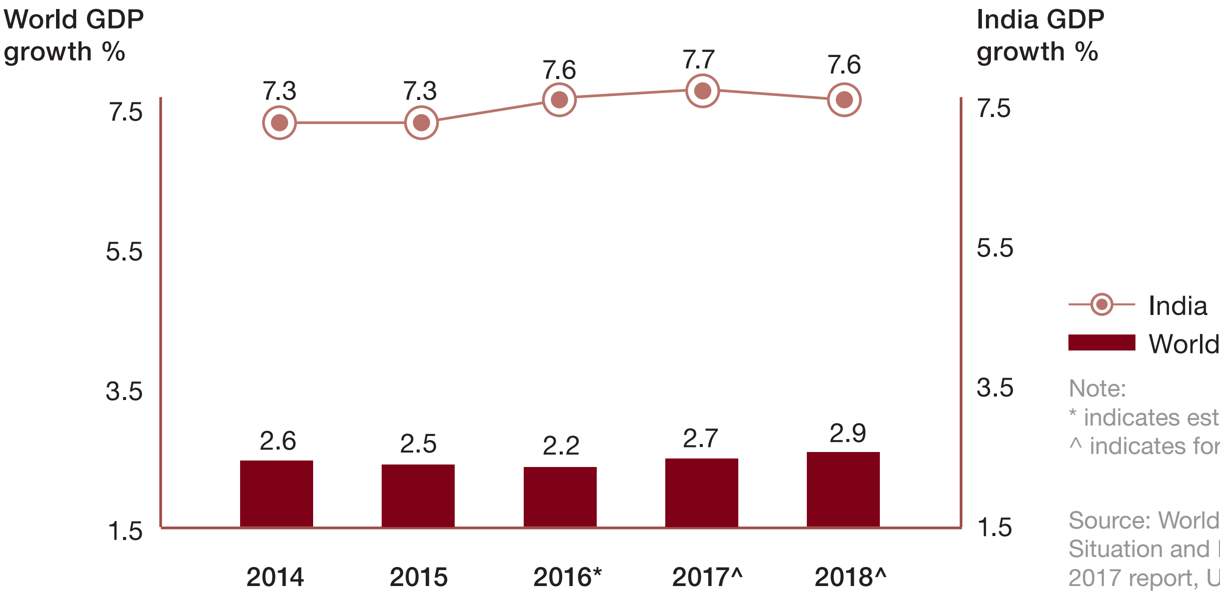
Taking the sector pulse

The India Manufacturing Barometer has offered insights into the current sentiment of business leaders from the manufacturing sector, the factors they perceive will impact their businesses over the next few months and the plans they intend to employ in order to address them. The survey covers companies in eight key sectors: automotive and auto components, cables and transformers, capital goods, cement, chemicals, downstream metals, packaging, and plastics and polymers. In our previous edition, we gauged the industry opinion on the government's flagship initiative, Make in India. This year, we cover a new disruptive trend, Industry 4.0, and expand the scope of the survey to cover respondents' opinions on the current state and future of Industry 4.0 in their respective industries.

India versus the global economy

India continues to be one the fastest growing economies globally. Several interventions and policy measures in India have further strengthened the positive outlook towards the Indian economy, whereas the global economy can, at best, be said to be characterised by an atmosphere of uncertainty for now. The manufacturing industry has been embracing the changes that are happening at the pace at which they are happening in India. However, industry leaders have expressed an underlying concern about the pace at which changes are being introduced. Pace of introduction and sector readiness may need to be assessed to ensure interventions have their desired outcomes.

Exhibit 2
World and India GDP growth rate



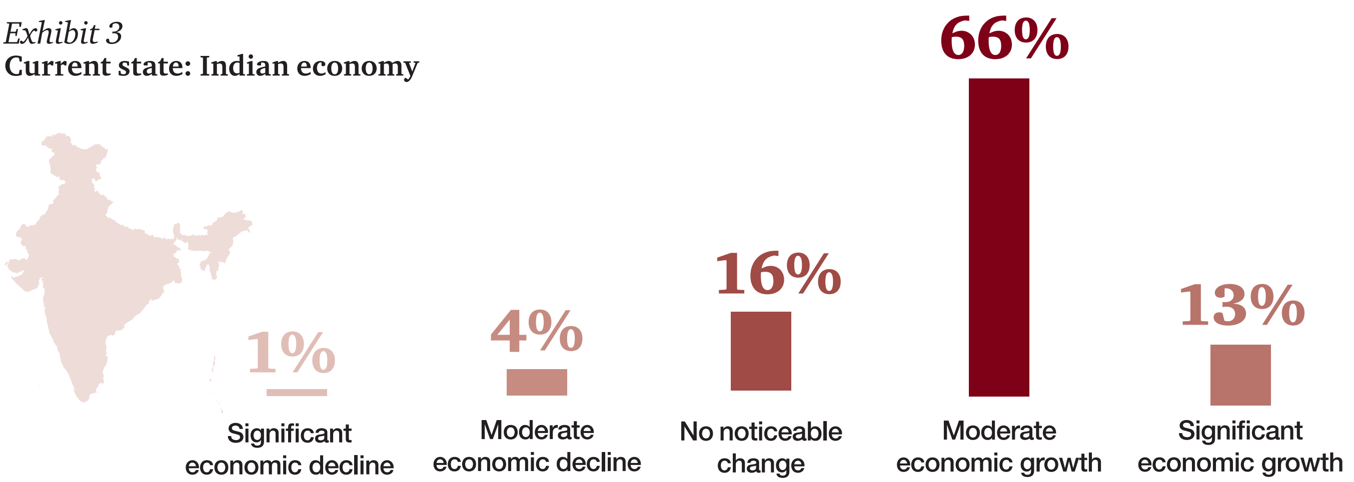
Note:
* indicates estimated,
^ indicates forecast

Source: World Economic Situation and Prospects 2017 report, United Nations

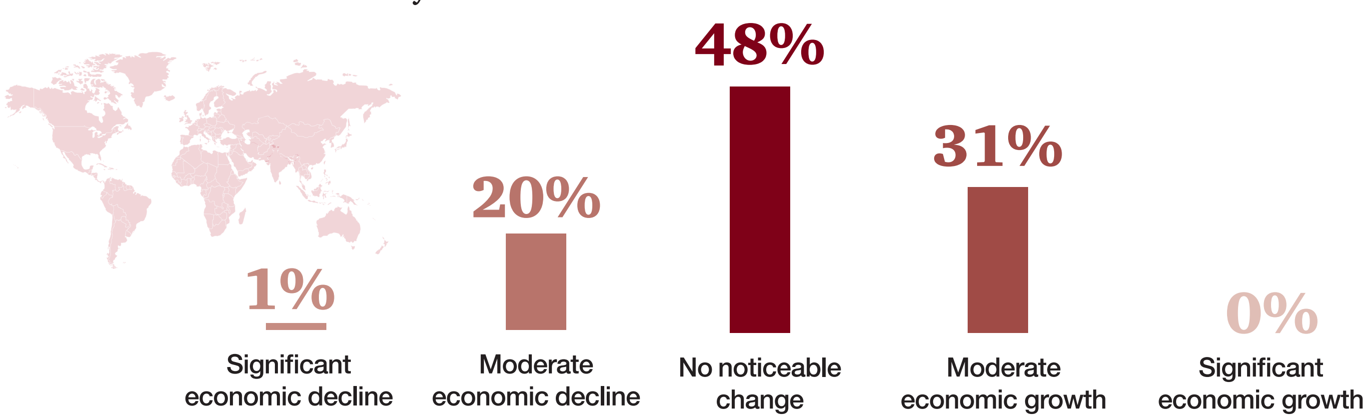
Moderate economic growth for the Indian economy

Of the surveyed respondents, 66% believe that the Indian economy witnessed moderate economic growth (an increase from 58% of last year), while about 48% see no noticeable change in the condition of the world economy. In fact, one-fifth of the respondents find the world economy to be in a state of moderate economic decline, as against one-third in last year's survey.

Exhibit 3
Current state: Indian economy



Current status: World economy

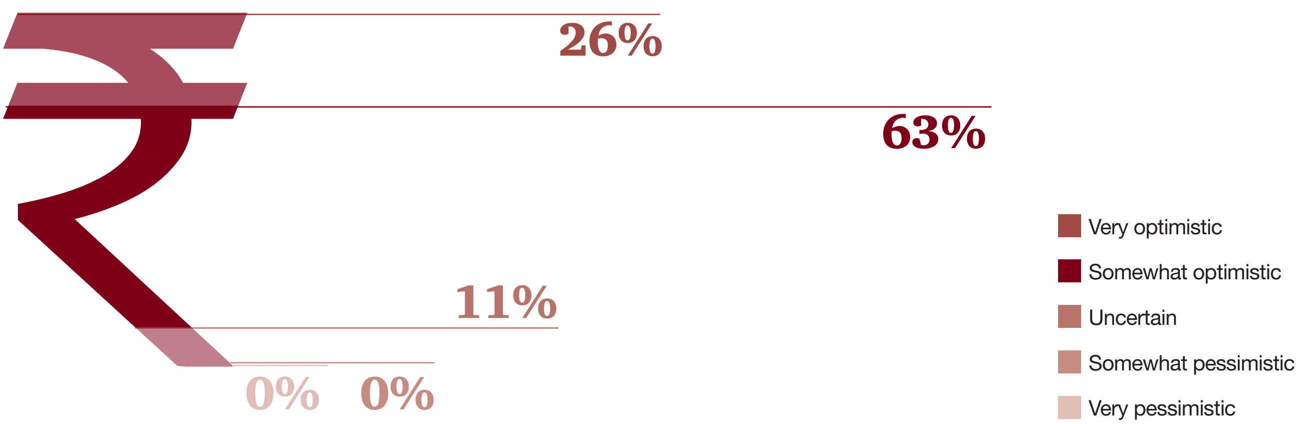


Source: 4th edition of India Manufacturing Barometer survey

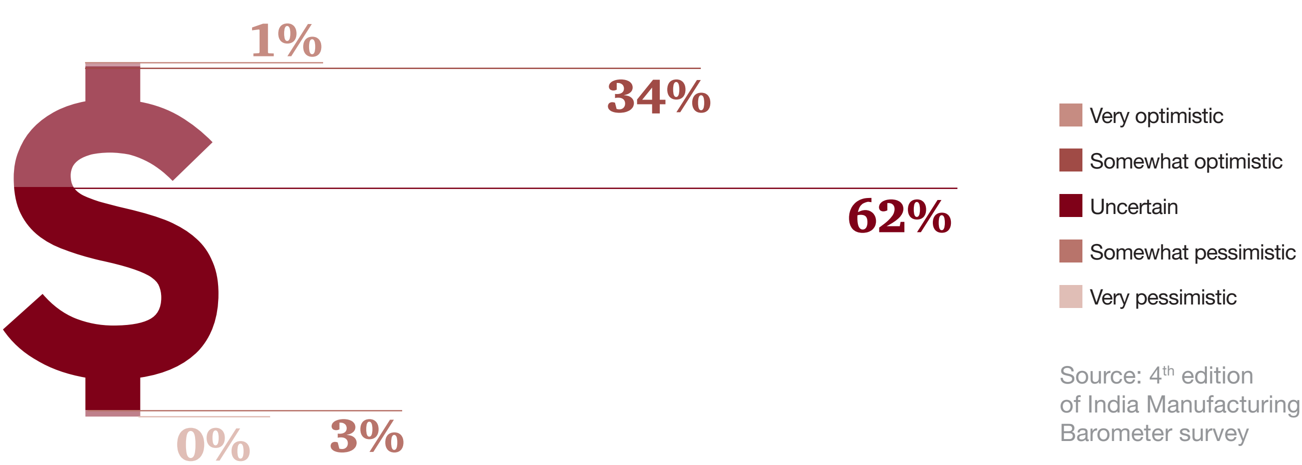
Optimism about the Indian economy

About 63% of the respondents are somewhat optimistic about the prospects of the Indian economy for the coming year, which represents a significant jump over last year (58%). In fact, 26% of the respondents are very optimistic about the future prospects of the India economy. A very large section of the respondents believe that growth will be in the range of 7–8%. In contrast, 62% of the respondents have expressed uncertainty about the global economy—an 8% increase from last year.

Exhibit 4
Outlook for Indian economy in the next 12 months



Outlook for world economy in the next 12 months

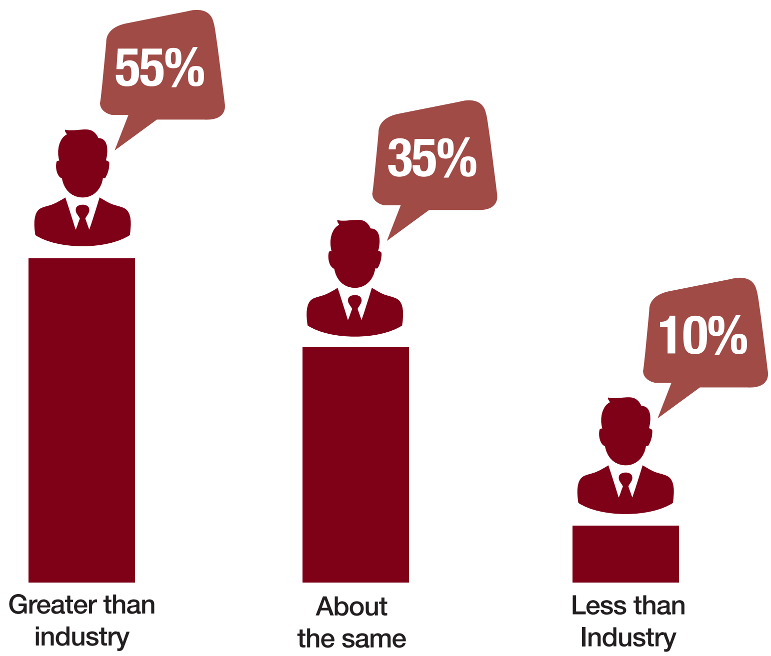


Source: 4th edition of India Manufacturing Barometer survey

Industry revenue outlook for the next 6–12 months

In this year's survey, 55% of the respondents have said that growth of their own organisations outpaced that of the industry group compared to 46% last year. Further, 35% have said their growth was on par with that of their industry. In terms of profitable growth, about 49% of the respondents believe their margins are likely to increase over the next 12 months, whereas 36% expect their businesses to operate at the same levels of margin.

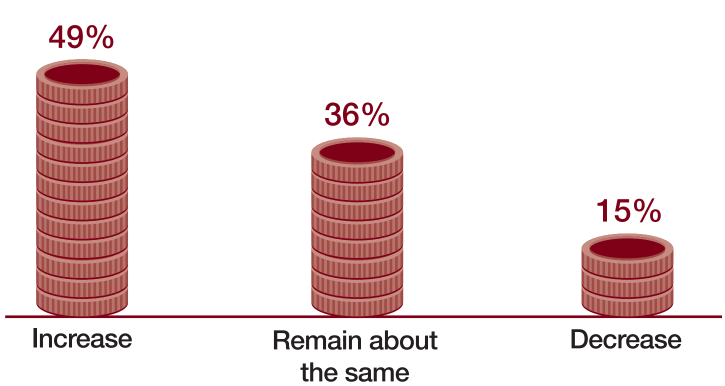
Exhibit 5
Estimated revenue growth (own business) versus industry growth



% of respondents

Source: 4th edition of India Manufacturing Barometer survey

Exhibit 6
Expected change in margins in the next 12 months



% of respondents

Source: 4th edition of India Manufacturing Barometer survey

State of the industry: Key insights

An analysis of the responses of company representatives in each sector presented a mixed picture of the manufacturing sector as a whole. Although the overall outlook has improved across industries, a few sectors continue to face industry-specific constraints. We will now delve into industry-specific insights and nuances.

Auto and auto components

In the coming year, the Indian auto sector is expected to grow moderately with 6–8% growth in passenger vehicles, primarily driven by UVs, and 0–2% growth in commercial vehicles. Two-wheelers are expected to clock double-digit growth in FY18.[4] The outlook for the auto components industry is extremely positive, with industry experts expecting to register a turnover of 100 billion USD by 2020, backed by strong exports.

A bulk of the auto and auto components respondents in India have indicated their companies will achieve double-digit growth next year due to planned new launches and macroeconomic factors like an export fillip, introduction of GST, and a continuous thrust to infrastructure (e.g. highways) by the Indian government. A majority of the respondents have seen an increase in their cost base on account of higher raw material and manpower costs last year, but only a few have increased their prices substantially to offset the cost impact. In FY18, most respondents expect margins to stay at the same level or go down further. While a bulk of the respondents are currently operating at 75% of their installed capacity, the outlook is positive, with a majority of them indicating a willingness to invest further in expanding capacities and in functions like research and development (R&D). Tax incentives for Industry 4.0 investments have emerged as a common theme in terms of support expected from the government in the coming years.

Cables and transformers

The outlook for this sector is mixed to optimistic, with a significant share of the respondents holding the view that government-driven initiatives facilitated growth in the past 6–12 months.

Factors that helped drive growth include the upgradation of electrical infrastructure, expansion of companies' product portfolio, distribution expansion, increased share of organised players, a stable currency regime and growth of exports. Margins were up largely due to a decline in commodity prices over the first half of the year. The top concerns were competition from imports, lack of quick decision making on policies and slow pace of key reforms.

Policies and planned developments for the power, telecommunications, renewable energy and infrastructure sectors, including smart cities and the Delhi Mumbai Industrial Corridor (DMIC), will create relevant opportunities. A substantial share of the respondents expect rising commodity and energy prices to put pressure on prices and gross margins in the next 6–12 months. Players are continuously working to improve production efficiencies and quality to counter these pressures. Although most respondents do not plan to add capacities or workforce in the next 6–12 months, they are optimistic about the future and are keen to invest in R&D, new product development, distribution expansion and brand development.

Capital goods

The capital goods sector is a key contributor to manufacturing, accounting for approximately 12% of manufacturing volumes or approximately 2% of the country's GDP.[5] Capital goods is a large sector, with a market size of approximately 2,82,000 crore INR and total production worth approximately 2,30,000 crore INR in 2014–15. However, the growth of the sector has been sluggish, with the domestic market size de-growing at 3.6% per annum and total production increasing by only 1.1% per annum over the last 3 years. That being said, this sector is expected to turn around soon, with public sector spend showing progressive growth and private sector investments expected to further boost the overall growth of the sector. A major thrust is expected from the defence and auto sectors.

Under the Capital Goods Scheme of the Department of Heavy Industry (DHI) which has been formulated in partnership with FICCI and other industry bodies, 14 proposals have been approved thus far, out of which four pertain to Centres of Excellence for technology development.[6] With most ongoing projects being backed by government orders, companies are positive that execution will improve in the coming months, given the thrust on infrastructure spending. Rising domestic demand will be a major driver in the sector. With the expected increase in demand, capacity utilisation will further improve. New product development is also expected to drive R&D spend.

Cement

With an average growth of 5% over the last year, the cement industry witnessed a significant level of consolidation activity. All cement players remain optimistic about the Indian economy, expecting it to grow by 7–8% over the next 12 months. While demonetisation caused a temporary and short-term market slowdown, cement companies have bounced back and are trying to become more agile and responsive. Only a third of the respondents spoke of increasing their manufacturing capacity, with about two-thirds of them not planning to add employees during the next 12 months. With the GST Bill near finalisation and adoption, the launch of housing and infrastructure initiatives by the government and core economic growth, all players in the cement industry expect an increase in both capacity utilisation and margins. Notable amongst them are the significant infrastructure spend planned by the government with initiatives like Pradhan Mantri Awas Yojana, which will continue to offer growth opportunities to the cement industry.

Chemicals

Globally, the chemical industry grew only by 2.1% in 2016 due to low demand. The Indian industry has fared better and company growth rates have been in higher single digits as relatively stronger domestic consumption has ensured that Indian chemical companies enjoyed better growth compared to their global peers. When catering to exports, companies benefit only if China is not dominating this sub-segment and labour and technology are transferred to India. Overall, respondents have indicated that their own growth estimates have been revised downwards. The scope for Indian companies to refuel growth through acquisitions is limited due to a lack of potential targets. Due to this, they are looking to find growth avenues outside their core business through new product introductions or expansions into new geographies.

Specialty chemicals company respondents have indicated that their margin has stayed the same/increased in the last 6–12 months, and they are confident of successful margin management measures to at least maintain margins in the next 6–12 months. This is in contrast to a 1–2% drop in earnings before interest, tax, depreciation and amortisation (EBITDA) margins forecasted for 2017 in our global Strategy& publication.[7] Keeping capacity utilisation high remains a focus rather than a strong trend towards increasing the existing capacity.

Downstream metals

The downstream metals industry is largely dominated by the steel industry. In recent years, the steel industry has been impacted by competition from cheaper imports. Demand growth in this sector is driven by infrastructure development and growth in the automotive, power and cement industries.

The first quarter of the year (FY17) was slow due to a weak monsoon and rural demand. However, in the subsequent quarter, demand picked up, and with trade restrictions on cheap imports and better cost control, leading steel players witnessed improved and profitable performance. Margins increased for a majority of the companies—70% of the respondents reported that their gross margins had improved in the last 6–12 months. There continues to be a strong focus on controlling costs, especially wages and raw material costs. In addition, while domestic prices may remain stable, exports will be dictated by oversupply and hence lower realisations.

Companies, however, have a better outlook for the future, with the expectation that overall margins will continue to increase. Expectations on margins are largely linked to expectations on price (including price support). Capacity additions undertaken over the previous years are yet to be fully utilised. Therefore, market players will be very selective while undertaking any new additions.

Plastics and polymers

The long-term outlook for this sector is optimistic as the Indian per capita polymer consumption is only 40% of the global average.[8] A majority of the respondents are of the view that the sector grew faster than the overall industry. Margin performance was mixed in the last 6–12 months, primarily due to a neutral/negative outlook for various product prices. Although the view on new capital investments was mixed, most companies are in favour of significant (20% or more) capacity expansion. There is optimism for the future, with all companies planning to add to the workforce.

Infrastructure investments and growth of construction and housing projects; technology evolution that allows plastics to be replaced by wood, metal and glass; increasing penetration of organised retailing and e-commerce; increasing adoption of poly film packaging in the food and beverage industry; and increasing consumption in rural India are considered to be the key factors driving growth in this industry. Over the next 12 months, many companies plan to expand to new export markets and raise capital. The top concerns mentioned by respondents are the volatile/high prices of raw materials and increased cost pressures, especially from wages.

Packaging

The packaging industry has exhibited muted growth over the last year, with a slowdown in industrial growth and drop in consumer demand. However, respondents are positive about growth in the next 12 months. They consider India's low per capita packaging consumption vis-à-vis that of developed economies, increasing disposable incomes, growth in end-use industries—especially packaged food—and a shift towards organised markets as the key growth factors. The outlook for new capital investment is also positive as most companies plan to invest in new manufacturing facilities to cater to increased demand.

Going forward, packaging companies plan to focus on driving revenue and profitability through an emphasis on exports, improved customer service and increased production efficiencies. Further, with the implementation of GST from 1 July 2017, the packaging industry will witness higher growth, as demand across key end user industries is likely to increase.

Future growth

The manufacturing industry will look to focus on new products/services, R&D, IT and expanding its facilities. This year, 52% of the respondents have stated that they will be increasing their investment in IT compared to just 21% last year. Also, compared to 51% last year, 66% of the respondents say they will be focusing on introducing new products/services in the coming year. This indicates that manufacturing companies in India are now spearheading growth through innovation and emerging new technologies.

Exhibit 7
Heads of planned expenditure increase

66%
New product or service introductions

57%
Research and development

57%
Facilities expansion

52%
Information technology

Source: 4th edition of India Manufacturing Barometer survey

The unavailability or high price of raw materials, limited domestic demand, competition from foreign markets, and uncertainty about taxation, legislative and regulatory regimes continue to be seen as barriers to business growth in the coming year. The manufacturing sector expects government support in the following areas—development of a long-term roadmap for educating and skilling the workforce, access to finance, and a clear and stable policy environment for long-term investment planning. We hope that the government will undertake steps that it can to stimulate domestic demand and facilitate fast-track implementation of these projects.

The emergence of Industry 4.0

The third edition of the India Manufacturing Barometer revealed the perception of the Make in India campaign to be positive—85% of the respondents interpreted the campaign as encouraging manufacturing in India.[9] It also noted the impact to date and required actions. One such critical required action is the adoption of Industry 4.0. At the investment summit in Andhra Pradesh in January 2017, multiple experts highlighted the criticality of embracing Industry 4.0.[10]

Industry 4.0 is best understood as a new level of organisation and control over the entire value chain of the life cycle of products, geared towards increasingly individualised customer requirements. The future of the manufacturing sector is an integrated blend of digital machines, software that combines transactional ERP and customer interfaces, and secure linkages across value chains with real-time decisions. The next wave of technological breakthroughs like mass-scale 3D printing of small components, super critical spares and safety equipment are likely to arrive in the next 12–18 months. Successful companies are aggressively pursuing integrated multi-year plans for digitising manufacturing in phases.

With this context in mind, this study attempted to understand the level of adoption of Industry 4.0 in the Indian manufacturing industry (current and future), areas of adoption, expected outcomes and challenges. Our conclusions reflect that there is scope to improve adoption to an average level.

- Almost half (48%) of the respondents have adopted the concept to a basic level or have not made any efforts in this direction. Reasons for the lack of implementation included relatively low sophistication in the manufacturing process, lack of clarity on tangible benefits in previous ‘technology’ initiatives like ERP implementation or prevalence of other organisational priorities.

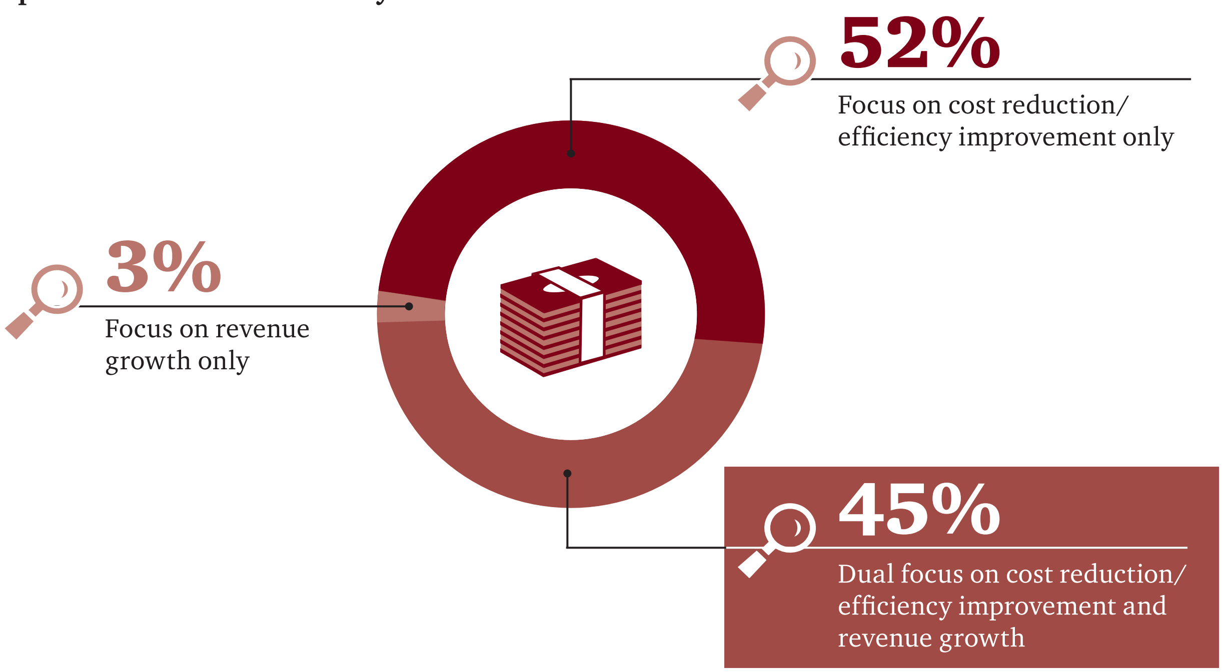
- The other half of the respondents have adopted the concept to an average (31%) or advanced (21%) level. This includes those who have made significant progress in digitising their interaction with their horizontal value chains and those who have embarked on initiatives like smart factories with the help of partners.

- The results for advanced level of adoption are in the same range as that reported by PwC's Global Industry 4.0 Survey[11] for India (27%), which is slightly behind the global average (33%).

- The future looks bright, with 86% of the respondents expecting investments in Industry 4.0 to increase in the next 3–5 years. Globally, manufacturing companies are planning to commit 5% of their revenues per annum to Industry 4.0.[12]

- When making such investments, globally, companies expect a combination of revenue growth and cost reduction/efficiency improvements. Of the survey responses, 45% indicate a dual focus on both. The respondents who focus on cost reduction/efficiency improvement alone (52%) would do well to evaluate whether the implementation is being viewed from a narrow lens and money is being left on the table.

Exhibit 8
Expected outcome of Industry 4.0 investments



Source: 4th edition of India Manufacturing Barometer survey

- Lack of digital culture and talent is considered to be the top implementation challenge by 63% of the respondents. This implies that organisations have to invest time in getting their teams ready for transformation rather than on selecting the right technology. This also means that in order to stay competitive in their industry, organisations need to start the journey early. Data security concerns are the second big implementation challenge, with 54% of the respondents citing it.

Exhibit 9

Top 3 challenges for implementing Industry 4.0

63%
Lack of digital culture and talent

54%
Data security concerns

46%
High investments

Source: 4th edition of India Manufacturing Barometer survey

The manufacturing industry believes that the government can support the adoption of Industry 4.0 in three ways: (i) Favourable tax incentives can give adoption the required push; however, identifying the qualifying conditions could be a challenge. (ii) Skill development programmes of the government should focus on sector-specific Industry 4.0 aspects. (iii) The government should come up with refined data protection laws to address industry concerns. In our view, while support from the government is important, the onus is on the companies to decide their blueprint for success, starting with mapping out their Industry 4.0 strategy and initiating pilots to test the value and learn from challenges.

Conclusion

There is greater optimism about the state of the global and Indian economy compared to last year. With its strong performance, the Indian economy has been able to instil confidence in a larger section of business. As the industry prepares for immediate changes like the implementation of GST and long-term improvements through Industry 4.0, the key expectation from the government is the creation of a clear and stable policy environment that can facilitate long-term business and investment planning.

Exhibit 10
Comparison of key indicators for business outlook

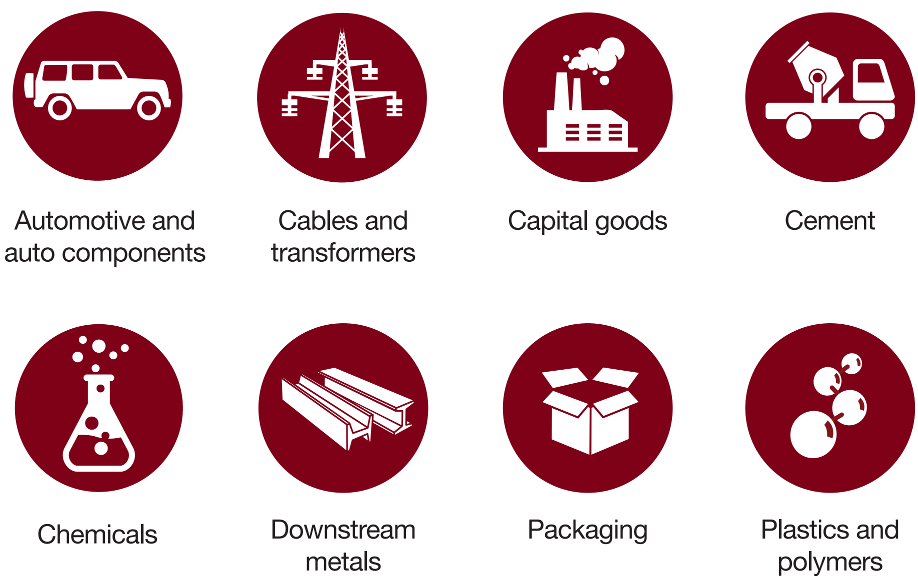
	2016	2015	2014	2013
Condition of Indian economy today				
Significant economic growth	13%	11%	6%	2%
Moderate economic growth	66%	58%	75%	22%
No noticeable change	16%	23%	19%	38%
Moderate economic decline	4%	8%	0%	30%
Significant economic decline	1%	0%	0%	8%
Outlook for Indian economy				
Very optimistic	25%	24%	26%	0%
Somewhat optimistic	63%	58%	68%	28%
Uncertain	12%	15%	4%	54%
Somewhat pessimistic	0%	3%	2%	14%
Very pessimistic	0%	0%	0%	4%
Outlook for Indian manufacturing businesses				
Margins increased in the past 6 months	43%	33%	37%	30%
Margins expected to increase in the next 12 months	49%	36%	47%	54%
Key future business activities				
Expansion to new markets abroad	62%	44%	61%	57%
Start at least one new strategic alliance or JV	36%	19%	39%	43%
Planning to hire	41%	41%	35%	35%
Planning major investments	53%	44%	55%	40%

Source: 1st, 2nd, 3rd and 4th edition of India Manufacturing Barometer survey

Survey demographics and research methodology

Interview period: 1 November 2016 to 31 January 2017

Exhibit 11
Industry sectors



Source: 4th edition of India Manufacturing Barometer survey

Respondent profile: Chief executive officers, chief financial officers, chief operating officers and heads of strategy across the selected industries/companies

Methodology: The India Manufacturing Barometer is based on a survey conducted by PwC Strategy& and Market Search (India) Private Limited. The survey typically covers senior executives from a sample of Indian manufacturing companies.

About FICCI

Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate and engaging with policymakers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, and reaching out to over 2,50,000 companies.

FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policymakers and the international business community.

Notes

Notes

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Endnotes

1. United Nations. (2017). World Economic Situation and Prospects 2017. Retrieved from https://www.un.org/development/desa/dpad/document_gem/global-economic-monitoring-unit/world-economic-situation-and-prospects-wesp-report/ (last accessed on 12 April 2017)

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