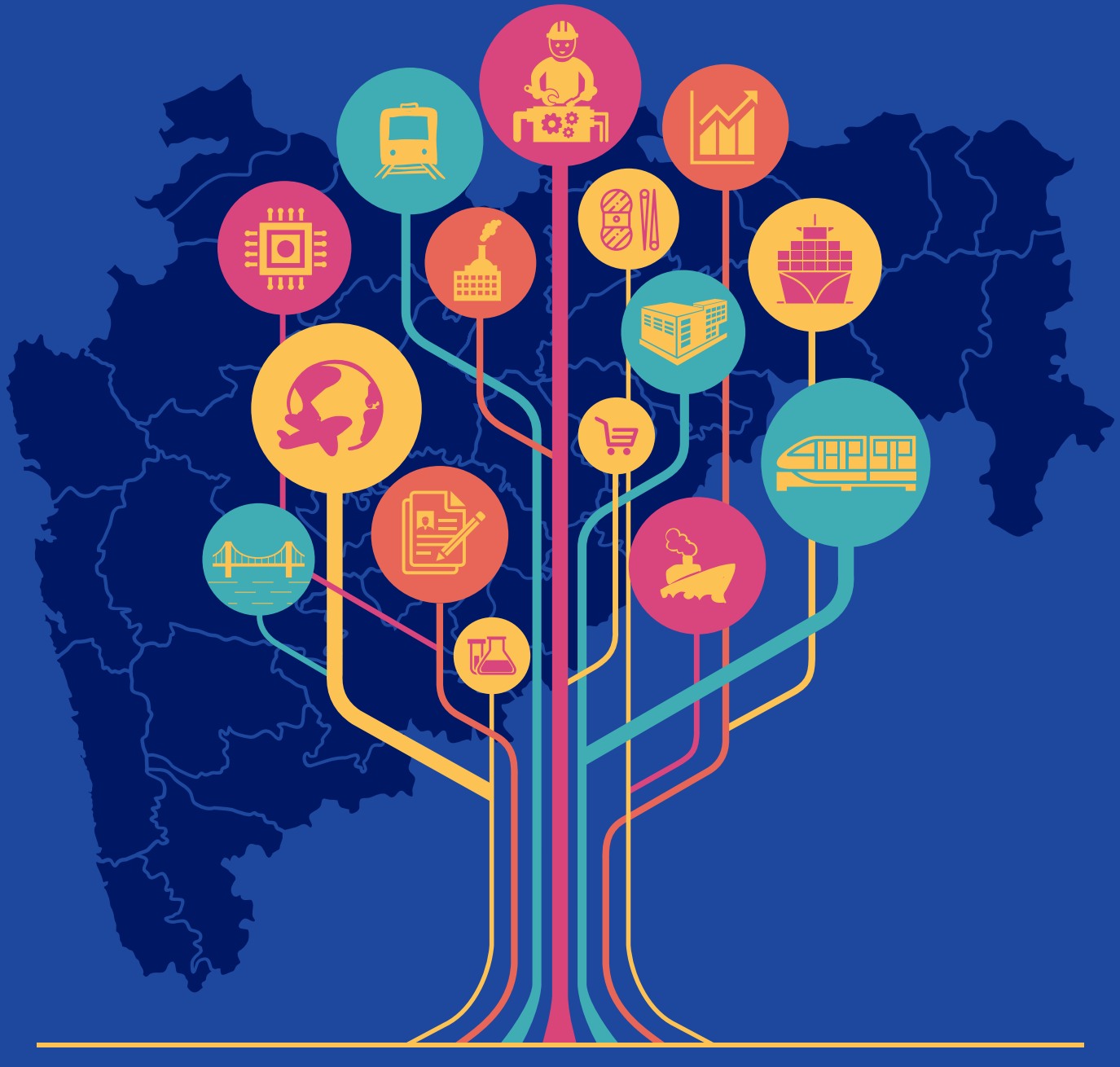
FICCI

SPJIMR
Bharatiya Vidya Bhavan



DOUBLING THE ECONOMIC GROWTH:
WAY FORWARD TO A SUSTAINABLE JOB CREATION FOR A TRILLION DOLLAR ECONOMY

Progressive MAHARASHTRA
Buildings Sustainable Competitive Advantage

A **FICCI - SPJIMR** REPORT | OCTOBER 2018

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

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FOREWORD





In 2017, the FICCI-SPJIMR Report for the 5th Progressive Maharashtra took up the theme of 'Maharashtra 2025: Leapfrogging to a $1trillion economy'. This was prompted by the idea of regional powerhouses, such as those in the United States and China, which have powered the growth of the respective economies. Thus, US's richest state- California, with a GDP of $2.5 trillion in 2015 and with only 3 per cent of India's population was significantly ahead of India's GDP of $2.09 trillion even in 2015. Similarly, three Chinese provinces- Guangdong, Jiangsu and Shandong- accounted for GDPs of more than $1 trillion each.

The joint report prepared by FICCI and SPJIMR, Mumbai in 2017 aimed at putting into perspective the goal of achieving a $ 1 trillion economy status, as also the policy interventions required to make Maharashtra a $1 trillion economy by 2025. In the year since then, in 2017-18, Maharashtra has reported a strong growth rate of 10 per cent of the real Gross State Domestic Product and a rate of growth of 9.9 per cent in the real Gross State Value Added (GSVA). Its GDP in 2017-18 has been 0.27 trillion. As Maharashtra accelerates forward in economic growth, it becomes imperative to focus on the other aspect of sustainable growth, namely job-creation.

Job creation and providing gainful employment opportunities to the people living in the state will be critical for both equity and efficiency purposes. What is the job creation challenge? How does industry look at creating jobs with growth opportunities? Is there a greater intent to automate rather than employ labour? What can lead to sustainable job creation in Maharashtra's attempts to become a $1 trillion economy? These are some of the questions considered by the report prepared by FICCI-SPJIMR in 2018.

The report has used two different assumptions to assess the employment elasticity in Maharashtra. Such employment elasticity is used to calculate the change in employment in the state. The report has used a survey of corporates in Maharashtra to assess both the competitiveness of Maharashtra's business environment which may accentuate/impede the move to a $1 trillion economy, as also the intent of industry to actively engage labour to generate such growth. The report presents the results of the survey.

The Progressive Maharashtra Summit may be used as a platform to deliberate on the task of job creation, as also highlight industry concerns regarding the challenges faced in achieving such a goal. The forum could be used to chart out a roadmap for government- industry- academia collaboration to achieve this goal.

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Chapter 01

MAHA-RASHTRA: THE 'JEWEL IN INDIA'S CROWN'

MAHARASHTRA: THE 'JEWEL IN INDIA'S CROWN'

With a Gross State Domestic Product (current prices) of ₹ 24, 96,505 crores in 2017-18, Maharashtra, is the richest state in India, accounting for 14.8 per cent of India's GDP. In per capita income terms, Maharashtra was the leading state with a per capita income of ₹ 180596 during 2017-18.

The state accounts for a geographical area of 3.08 lakh sq. km, which is 9.4 per cent of India's overall geographical area. The second largest state in India in terms of population, it accounts for 9.3 per cent of the total population of India and is highly urbanised with 45.2 per cent people residing in urban areas. At the same time, the proportion of rural population is significantly lower (at 54.8 per cent), compared to the Indian average of 68.9 per cent.

Maharashtra is the most industrialised states in the country and over the years, it has maintained its leading position in the industrial sector in the country. The industrial base of the state comprises of pharmaceuticals, petrochemicals, heavy chemicals, electronics, automobiles, engineering, food processing and plastics. Based on national and international trends in demand, as also based on the state's own resources, the State has identified industrial sectors like Auto, Engineering, Electronics, Textile and Defence as focus sectors. A pioneer in small scale industries, the state boasts of the largest number of special export promotion zones. The large base of skilled and industrial labour make Maharashtra the ideal destination for knowledge based and manufacturing sectors.

Mumbai- the capital of Maharashtra is the financial capital of India and houses the headquarters of most of the major corporate and financial institutions. India's main stock exchange and capital market – the Bombay Stock Exchange, and commodity exchanges are all located in Mumbai.

The factors that contribute to Maharashtra being the 'Jewel in India's Crown' include:

Abundant natural resources - The state has abundant deposits of minerals like coal, limestone, manganese ore, bauxite, iron ore, dolomite, laterite, kyanite, fluorite (graded), chromite, silica sand, quartz, etc. The total potential mineral area in the State is about 58,000 square km, accounting for about 19 per cent of the State's total geographical area. Data reveals that in March, 2017, 194 major minerals mines providing employment to 52,446 people operated in the state. The total value of minerals extracted during 2016-17 was ₹ 8,723 crore. The total value of minerals extracted during 2017-18 (upto September, 2017) was ₹ 2,645 crore.

Availability of power - Electricity and power are the pre-requisites of physical infrastructure to drive growth in any economy. The installed capacity of generating electricity in Maharashtra (as on 31st March, 2016) was the highest in India, growing by 7.9 per cent during 2016-17. The total installed capacity as on 31st March, 2017 in the State was 35,166 MW of which share of public sector was 39.3 per cent, private sector was 54.4 per cent (of which 33 per cent non-renewable & 21.4 per cent renewable) and Public-Private Partnership (PPP) (Ratnagiri Gas Power Project Ltd.) was 6.3 per cent. The supply-demand gap in electricity during FY 2017-18 (upto Nov 2017) was about 82 MW against the gap of 1202 MW in 2011-12, and Maharashtra was ahead of all other states in terms of a low demand-supply gap in electricity during peak demand.

Interstate connectivity - Maharashtra is well connected to all other states- both neighbouring and distant- by all modes of transport. Of the 3.03 lakh km of road length maintained by the Public Works Department (PWD) and the Zilla Parishad (ZP), more than 80 per cent is surfaced road length. 99 per cent villages are connected by roads (all-weather and fair-weather roads). The state accounts for 9.2 per cent of the total railway route length of the country, measuring 6,103 km (including 378 km of the Konkan railway). Mumbai, Navi Mumbai, Nagpur and Pune also boast of metro rail projects under various stages of implementation.

Connectivity with the rest of the world - Maharashtra's 720 km long coastline and presence of ports has facilitated international trade. The state boasts of India's largest container traffic port- the Jawaharlal Nehru Port Trust (JNPT). Mumbai Port Trust (MPT) is the other major port in operation in India. The Government has also sought to develop 48 minor ports in the state using a Public-Private-Partnership (PPP) model. Maharashtra enjoys prime position in India's foreign trade accounting for 22.3 per cent of India's exports[1].

Presence of Air Transport - Maharashtra has three International Airports located at Mumbai (Chhatrapati Shivaji Maharaj International Airport), Nagpur and Pune. It also has 8 Domestic airports at Mumbai, Pune, Nagpur, Aurangabad, Kolhapur, Juhu, Solapur and Nanded.

Availability of Financial Services - Financial inclusion is important in terms of economic growth and advancement of society. In March 2017, Maharashtra had 12191 scheduled banking offices of scheduled commercial banks, accounting for 9.1 per cent of the total banking offices of SCBs in India. As per the Population Census 2011, Maharashtra ranked second in terms of households availing of banking services (68.9%), as compared to the all-India level of 58.7%. The state accounts for a higher population served per bank office (at 10,390), as compared to the national level (10,070). The share of the State in aggregate deposits and gross credit of scheduled commercial banks at All-India was 20.1 per cent and 29.0 per cent respectively. Credit-Deposit Ratio of the state was 106.3 per cent as on 31st March, 2017.

Key destination for industrial investment - Maharashtra is the recipient of a large number of industrial proposals, having high employment potential. Between August 1991 to December 2017, Maharashtra approved 19,826 industrial proposals (17.9 per cent of the all-India level) with a proposed investment of ₹ 11,89,815 crore (10.1 per cent of the all-India level). Of these, 45.3 per cent (numbering 8,974) projects were commissioned with an investment of ₹ 2,92,252 crore (24.6 per cent) and generated employment of about 12.67 lakh. As per the Annual Survey of Industries 2014-15, the State is at the top position in terms of gross value added (₹ 2,39,076 crore) which is 20.5 per cent of gross value added at All-India level.

Almost 50 per cent of the approved investment is in the IT, fuel industry and metallurgical industry. The state has 69 Special Economic Zones (SEZs) notified as duty free enclaves. These SEZs have a relaxed and business friendly policy regime, aimed at promoting rapid industrial development and employment generation. The state also has 37 public IT parks, together with an approval for 472 private IT parks. Further, there exist two public Bio-Technology (BT) parks.

Key destination for foreign investment - As per the reports of the Department of Industrial Policy & Promotion, Government of India, the Foreign Direct Investment (FDI) equity inflows in the State since April 2000 to June 2018 is ₹ 6,50,129 crore, which is 30 per cent of total FDI inflows at All-India level[2].

Presence of Large Market - Maharashtra's urban centres provide for large markets with diverse consumer demands providing the much required thrust for expansion of and innovation in production activity. At the same time, rural regions that are spread across the span of the state lend immense scope for development of industrial activity, particularly because they are untapped consumer markets with latent potential.

Social and Human Development Indicators - Education is the most crucial input for empowering youth with knowledge, skills & vocational trainings by providing them access to productive employment which will ultimately help to boost economic growth of the State. Maharashtra's literacy rate at 82.3 per cent is significantly higher than the national average of 73 per cent. Enrolment in higher education was 40.16 lakh in 2016-17, with a gross enrolment ration in the 18-23 years age category of 30.2 per cent in 2016-17. This was against the national average of 24.5 per cent in 2017.[3] The gender parity index[4] for Higher Education in 2016-17 was 0.88. The Infant Mortality Rate (IMR) was 21 per 1000 live births[5], compared to the national average of 37. Maharashtra's IMR was lower than the country and all other states (except Kerala and Tamil Nadu). 99.9 percent of the schools in Maharashtra have drinking water facility and 99.5 per cent schools have functional girls' toilets.

The Fifth 'Employment & Unemployment Survey' 2015-16, for persons of age 15 years and above, estimated the labour force participation rate in Maharashtra at 52.7 per cent, worker population ratio at 51.6 per cent and unemployment rate at 2.1 per cent according to the Usual Principal Status approach. The Work Participation Rate (WPR) for All-India was 39.8 per cent. Maharashtra ranked fourth having WPR of 44 per cent among major states after Andhra Pradesh, Tamil Nadu and Karnataka. Maharashtra's Human Development Index (HDI) is 0.752. [6]

Source:

[1]Narayan, K. (2018, February 3), "Maharashtra has largest share in India's export and GST base: Economic Survey," The Indian Express

[2]http://dipp.nic.in/sites/default/files/FDI_FactSheet_23August2018.pdf

[3]http://www.ndtv.com/education/gross-enrolment-ratio-for-higher-education-increases-to-24-5-says-mhrd-1663416

[4]This refers to the Gross Enrolment Ratio of Girls/ Gross Enrolment Ratio of Boys

[5]In 2015-16.

[6]Maharashtra Human Development Report, 2012

Chapter 02

MAHA-RASHTRA: STATE OF THE ECONOMY

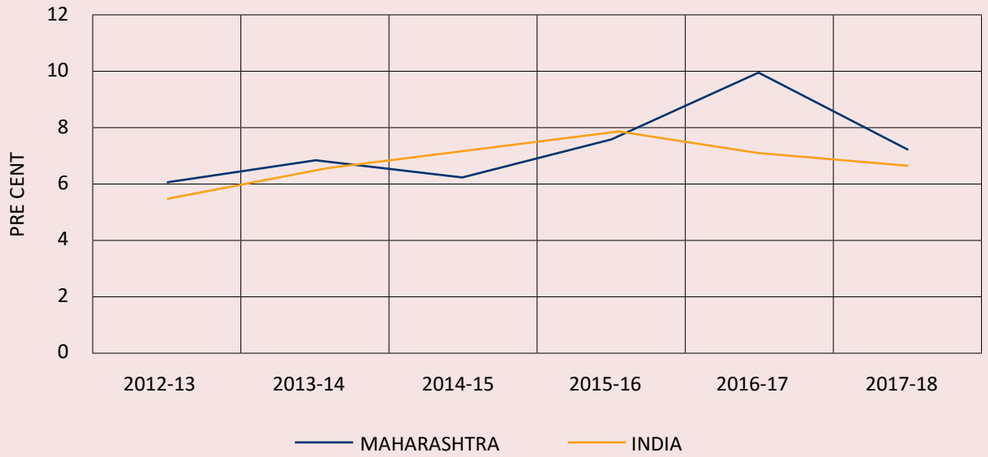
MAHARASHTRA: STATE OF THE ECONOMY

01 GROSS STATE DOMESTIC PRODUCT (GSDP) AND GROSS STATE VALUE ADDED (GSVA): SECTORAL SHARES

In 2016-17, Maharashtra's Gross State Domestic Product (at constant market prices) was ₹ 18,26,296 crores ($0.27 trillion).[7] Maharashtra has reported a strong growth rate of 10 per cent of the real Gross State Domestic Product and a rate of growth of 9.9 per cent in the real Gross State Value Added in 2016-17. These rates are estimated to be 7.3 per cent and 6.6 per cent respectively in 2017-18.

Chart 1 shows the significance of Maharashtra's growth to the national growth. The growth in state GSDP has been higher than the national GDP for most years, except in 2014-15.

GROWTH IN GSDP AND GDP: MAHARASHTRA VS. INDIA



Source: Economic Survey of Maharashtra, 2016-17.

CHART 1: COMPARISON OF GROWTH IN MAHARASHTRA'S GSDP TO INDIAN GDP

Source:

[7]assuming an exchange rate of ₹ 67=$1.

Much of Maharashtra's growth has been on account of the industrial and service sectors. Chart 2 shows the sectoral shares in Maharashtra compared to India. The share of 'Agriculture & Allied activities' at 11.9 per cent is lower than the all India share of agriculture at 17.9 per cent. Similarly, the shares of "Industry' and 'Services' sectors at 33.6 and 54.5 per cent are greater than the corresponding India shares of 30.4 and 51.7 per cent respectively.

Agriculture and Allied activities have a share of 11.9 per cent in the state's total GSVA. Agricultural growth rate over the period 2012-13 to 2017-18 has been negative in most years (Chart 3). This reflects the state's continuous dependence on monsoons for irrigation. Thus, the low intensity and deficit monsoons for a second year in row were responsible for the decrease in production of major crops during 2015-16. During 2016-17, due to overall favorable climatic conditions there was a record production in the major crops resulting in a growth of 22.5 per cent in the 'Agriculture & allied activities' sector. On the other hand, Industry, as also the services sectors have exhibited increasing rates of growth. (Charts 4 & 5).

Within industry, 'Manufacturing', with an average contribution of about 21.3 per cent in total GSVA has exhibited consistent growth, with a 9.3 per cent growth in 2015-16. Further, manufacturing is expected to grow at 7.9 per cent in 2017-18. 'Construction', with a share of 6.2 per cent in the GSVA grew at 4.9 per cent in 2016-17 after a negative growth rate the previous year.

Within services, 'Real Estate, Ownership of Dwellings and Professional Services' with an average share of 19.4 per cent in GSVA is a fast growing sector, growing at an average annual rate of 10.3 per cent in 2017-18. 'Financial Services', with a share of 10 per cent is another fast-growing sector, with an annual average rate of growth of 7.7 per cent over the period. 'Public Administration, Defence and other services' grew at 12.9 per cent in 2016-17.

Maharashtra had the highest Per Capita Net State Income (i.e. Per Capita NSDP) at current prices in 2016-17, estimated at ₹ 1,65,491 whereas it was ₹ 1,47,610 during 2015-16, while the average per capita income for India was ₹ 103219.

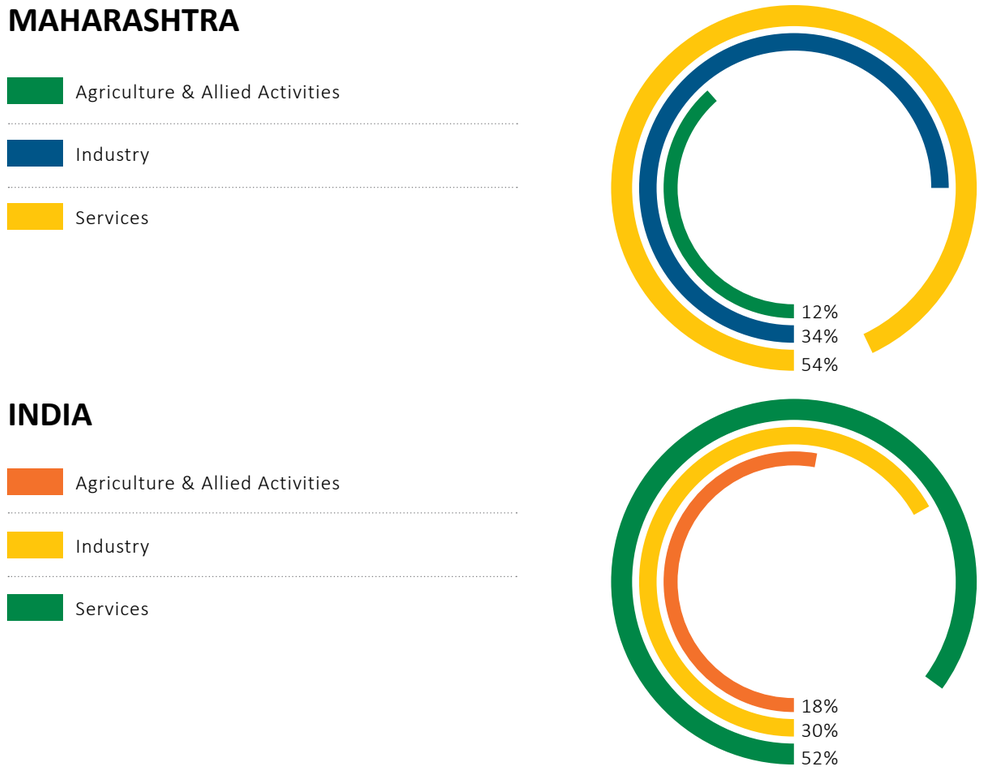


CHART 2: AVERAGE SHARE OF THE MAJOR SECTORS: MAHARASHTRA VS. INDIA

Source:

Economic Survey of Maharashtra, 2017-18.

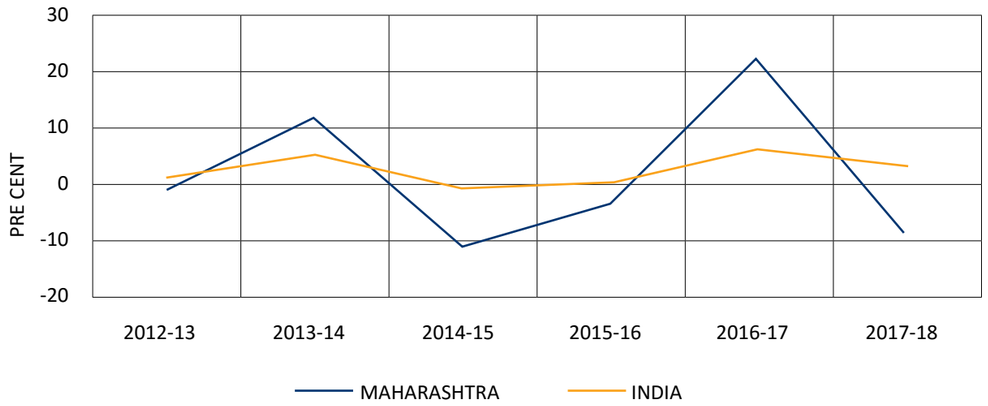


CHART 3: GROWTH OF GSVA AND GVA IN AGRICULTURE & ALLIED ACTVITIES

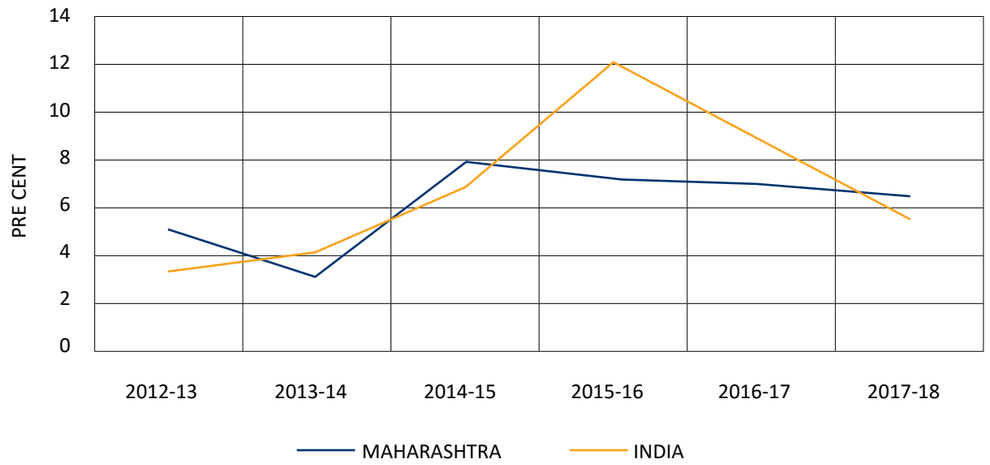


CHART 4: GROWTH OF GSVA AND GVA OF INDUSTRY SECTOR

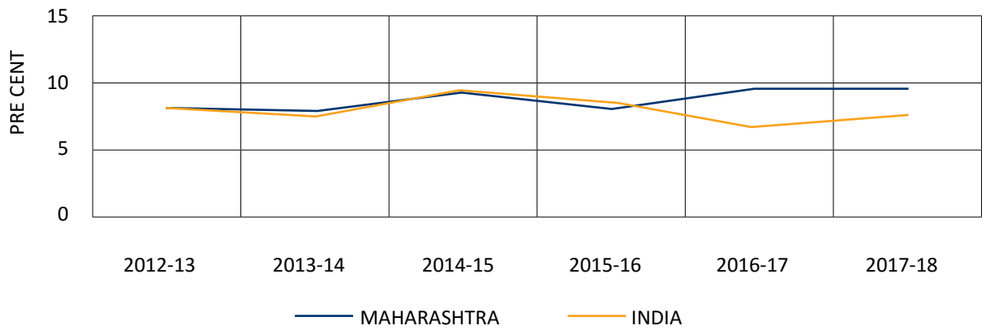


CHART 5: GROWTH OF GSVA AND GVA OF SERVICES SECTOR

Source:

Economic Survey of Maharashtra, 2017-18.

02 CURRENT INDUSTRIAL STATISTICS

The Annual Survey of Industries (ASI) 2014-15 provisional results reveal that Maharashtra is at the top position in terms of Gross Value Added and wages to workers with shares of 20.5 per cent and 15.7 per cent at All-India level. Gujarat, with a 16.88 per cent share in the GVA at the all-India level comes in second position. Maharashtra is also at second position in terms of the number of factories, number of workers and fixed capital with shares of 12.4 per cent, 12.1 per cent and 13.6 per cent respectively. Maharashtra's contribution in total value of output, working capital and in the Net Value Added (NVA) in the country is 16.3 per cent, 17.2 per cent and 21.4 per cent respectively.

The major industries in terms of total value of output are food products and beverages (14.0 per cent), coke and refined petroleum products (13.0 per cent), chemicals and chemical products (12.6 per cent), basic metals (10.2 per cent) and motor vehicles, trailers (8.9 per cent). These industry groups account for 58.7 per cent value of output of all industries and 50.3 per cent of fixed capital.[8]

PARTICULARS	2012-13		2013-14		2014-15	
	MAHARASHTRA	ALL-INDIA	MAHARASHTRA	ALL-INDIA	MAHARASHTRA	ALL-INDIA
Industries (No.)	28949	222120	29123	224576	28601	230435
	13%		13%		12.40%	
Fixed capital	344930	2180260	326362	2373719	337144	2474455
	15.80%		13.70%		13.60%	
Working capital	101692	603411	120418	662686	109971	640840
	17%		18.20%		17.20%	
Total output	1022032	6025945	1065971	6555251	1119618	6886335
	17%		16.30%		16.30%	
Total input	819454	5018666	837396	5490140	880542	5722255
	16.30%		15.30%		15.40%	
Gross Value Added	202578	1007279	228575	1065112	239076	1164079
	20.10%		21.50%		20.50%	
Net Value Added	178729	851949	200516	895342	208831	974539
	21%		22.40%		21.40%	
Employment (lakh)	12.33	100.52	18.86	135.38	18.84	138.81
	12.30%		13.90%		13.60%	
Profit	101640	444262	119613	439566	117357	459660
	22.90%		27.20%		25.50%	
a) Per factory (In ₹Lakh)						
Investment in Fixed capital	1192	982	1121	1057	1179	1074
Value of goods & services produced	3530	2713	3660	2919	3915	2988
Net Value Added	617	384	689	399	730	423
Employment (nos.)	43	45	46	47	46	47
b) Per worker (in `Lakh)						
Net Value Added	14.5	8.5	15.1	8.6	16	9.1
Annual wages	1.4	1.1	1.5	1.2	1.7	1.3

CHART 1: COMPARISON OF GROWTH IN MAHARASHTRA'S GSDP TO INDIAN GDP

Source:

[8]*In 2014-15.*

Economic Survey of Maharashtra, 2016-17.

03 PUBLIC FINANCE

Maharashtra reported the highest tax collections after the implementation of the GST in 2017. Expected share of taxes levied by the State was 78.3 per cent in the total revenue receipts during 2017-18 (BE). The tax revenue was expected to increase by 11.6 per cent during 2017-18 over the previous year. The share of Own Tax Revenue (OTR) in the tax revenue and in total revenue receipts is expected to be 80.4 per cent and 63.0 per cent respectively as per 2017-18 (BE). OTR is expected to increase by 11.8 per cent during 2017-18.

The non-tax revenue is increasing at CAGR of 16.6 per cent during last five years. During 2017-18 Non-tax revenue is expected to increase by 7.8 per cent over the previous year. However, it has been increased by 61.8 per cent from 2015-16 to 2016-17 (RE). Expected share of non-tax revenue in total revenue receipts is 21.7 per cent. The state will also earn a share of the central taxes, as part of an increase in the devolution of the central pool of taxes to state governments according to the recommendations of the 14th Finance Commission.

A large part of the state's expenditure continues to be revenue expenditure. The total revenue expenditure of the State by the end of December, 2017 was ₹ 1,54,278 crore (62.1 per cent of 2017-18 (BE)). Development expenditure incurred was ₹ 1,01,487 crore (61.2 per cent of 2017-18(BE)). Of the total development expenditure, expenditure incurred on social services was ₹ 58,796 crore (51.5 per cent of 2017-18 (BE)). The revenue expenditure in 2018-19 is expected to be ₹ 3 lakh crore, up from ₹ 2.7 lakh crore in 2017-18.

The capital expenditure consists of capital expenditure outside the revenue account, loans and advances given by the State Government and repayment of public debt. Capital expenditure is anticipated to be ₹ 52,149 crore in 2017-18, which is 17.4 per cent of the total expenditure. Major part of capital expenditure is capital expenditure outside the revenue account (expected share 64.8 per cent), which is an expenditure on capital assets i.e. fully development expenditure. Capital expenditure outside the revenue account is expected to increase by 11.2 per cent over the previous year.

Maharashtra's fiscal deficit in the years 2011/12 to 2016/17 were well within the limits laid down by the successive Finance Commissions (FCs), as also the the FRBM (Fiscal Responsibility and Budgetary Management) Act, 2005. However, on the back of ₹ 10000 crore of farm loan waivers, ₹ 10,000 crore of payout towards the 7th Pay Commission and ₹ 13,000 crore as compensation to municipal bodies towards Local Body Tax (LBT), the fiscal deficit of the state was higher by ₹ 4384 crore.

The expected fiscal deficit of 1.6 per cent of GSDP (base year 2011-12) and rolling target for fiscal management set at 1.53 per cent for 2017-18 (BE) for the State are thus, within the fiscal limit of 2.8 per cent of GSDP set by the 14th FC. Similarly, the state's debt position is also well within the limits laid down successively by the 13th and 14th FCs.

YEAR	FISCAL DEFICIT (AS A % OF GSDP)	REVENUE DEFICIT (AS A % OF GSDP)	DEBT STOCK (IN ₹ CRORE)	INTEREST PAYMENTS (IN ₹ CRORE)	AVERAGE COST OF BORROWINGS+	CONSOLIDATED FISCAL REFORM PATH*	
						FISCAL LIMITS (% OF GSDP)	DEBT STOCK LIMITS (% OF GSDP)
2011-12	1.6	0.2	225976	17505	8.6	2.5	26.1
2012-13	0.9	-0.3	246692	19076	8.4	2.5	25.5
2013-14	1.6	0.3	269355	21207	8.6	2.4	24.8
2014-15	1.8	0.7	294261	23965	8.9	2.4	24.3
2015-16	1.4	0.3	324202	25771	8.8	2.8	21.9
2016-17 (RE)	2.2	0.6	371047	28830	8.9	2.8	22.1
2017-18 (BE)	1.6	0.2	413044 (16.6% of GSDP)	31027	8.4	2.8	22.2
2018-19						2.7	22.3
2019-20						2.7	22.4

CHART 7: FISCAL INDICATORS FOR MAHARASHTRA

Notes: RE- Revised Estimates BE- Budget Estimates

Source: *Author's calculations based on data from Economic Survey of Maharashtra, various years.*

*

The Consolidated Fiscal Reform path set for the years 2011-12 to 2014-15 refer to those laid down by the 13th Finance Commission, Government of India. The same for 2015-16 onwards is that laid down by the 14th Finance Commission.

04 FOREIGN INVESTMENT

The state accounted for 31 per cent of the total FDI equity inflows from April 2000 to March 2017.

S. No.	RBI's - Regional Office2	State covered	2014-15 (April-March)	2015-16 (April - March)	2016-17 (April - March)	2017-18 (April-March)	2018-19 (April' 18-June'18)	Cumulative Inflows (April, 00 - June'18)	% age to total Inflows (in terms of US$)
1	MUMBAI	MAHARASHTRA, DADRA & NAGAR HAVELI, DAMAN & DIU	38,933 **(6,361)**	62,731 **(9,511)**	131,980 **(19,654)**	86244 **(13423)**	16152 **(2428)**	650129 **(118,134)**	30

CHART 8: FDI EQUITY INFLOWS (APRIL 2000 TO MARCH 2017): MAHARASHTRA
Amount Rupees in Crores (US$ in Million)

Source: .
http://dipp.nic.in/sites/default/files/FDI_FactSheet_23August2018.pdf

05 MAHARASHTRA: EXPORTS

The main products exported from the state are gems and jewellery, software, textiles, readymade garments, cotton yarn, metal & metal products agro-based products, engineering items, drugs & pharmaceuticals and plastic & plastic items. To recognise the efforts put up by the exporters and to boost the exports, the State/Centre is taking initiatives like giving awards based on export performance and implementing space rent subsidy scheme for Micro and Small Enterprises for participation in international exhibitions. Since 2007-08, the State's share remained at 27 per cent in the total exports from India.

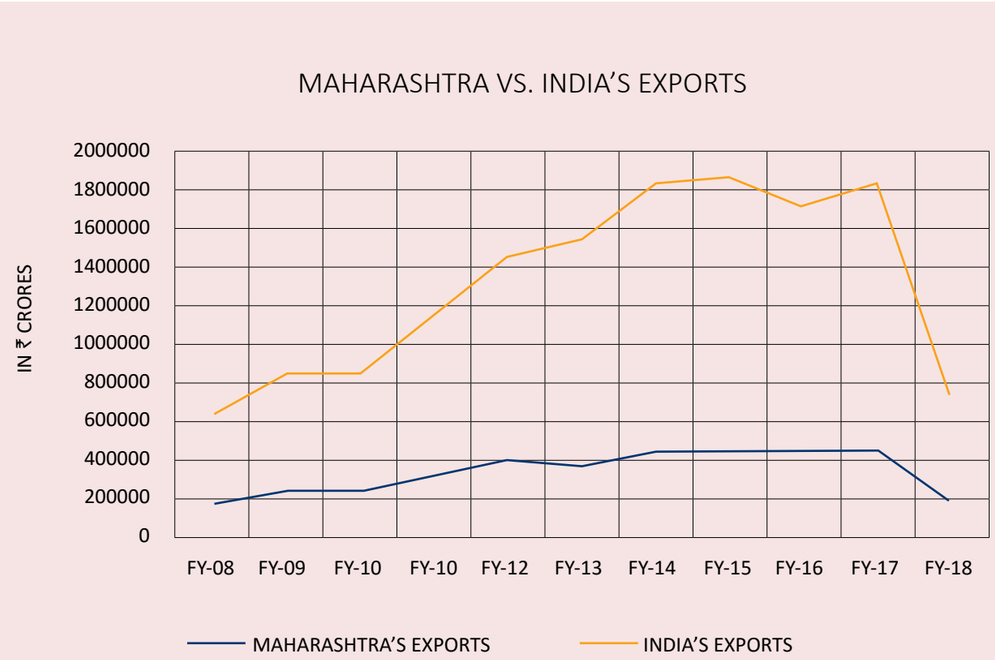


CHART 9: MAHARASHTA EXPORTS TO INDIA'S EXPORTS

Source:
Industrial State Profile of Maharashtra: 2017-18.

Chapter 03

CREATING A TRILLION DOLLAR ECONOMY: WHAT DO THE NUMBERS TELL US FOR EMPLOYMENT GENERATION

CREATING A TRILLION DOLLAR ECONOMY: WHAT DO THE NUMBERS TELL US FOR EMPLOYMENT GENERATION

Maharashtra, the richest state in India, reported a Nominal Gross State Domestic Product (at current market prices) of ₹ 22.57 trillion ($0.33 trillion) in 2016-17. Thus, Maharashtra needs to grow $0.664 trillion in the next eight years, i.e. over 2017-2025, for it to achieve a $ 1 trillion status. Applying the Compound Annual Growth Rate formula+, the state would have to grow at 14.86 per cent in real terms annually.

The growth rate of real GSDP over the previous year was 10 per cent. The growth rate of an economy is related to its savings and investment rate and its capital –output ratio through the Harrod-Domar growth equation:

g=s/k.....(1)
where g= growth in total output
s= savings rate
k= capital output ratio (also called ICOR or the Incremental Capital Output Ratio)

In equilibrium, theoretically, savings rate equals the economy's domestic investment rate (I). This is obtained from the basic assumption that whatever is saved will be automatically invested and converted into an increase in output on the basis of a given capital–output ratio.

Thus, g= I/ k.....(2)

Maharashtra has a strong Incremental Capital output Ratio of 0.80 i.e. 0.80 units of capital are required to produce one unit of output[++].

For Maharashtra to achieve an annual rate of growth of 14.86 per cent growth by 2025, given the average ICOR of 0.80 (over the period 2008/09-2015-16), investment in the state will need to grow to 12 per cent per year from the current investment rate of 3.44 per cent per year. If the ICOR is taken at the highest value over the period 2008-09 to 2015-16, i.e. 1.91, the required investment to achieve the 14.86 per cent growth rate would increase to 28.38 per cent.[1]

Source:
[1] Calculations based on Maharashtra Economic Survey, 2013-14, 2015-16, 2016-17, 2017-18 and Reserve Bank of India, Handbook of Statistics on Indian States.

Notes:
+ The Compound Annual Growth Rate is calculated using the formula: CAGR= [(Ending Value/Beginning Value)^ (1/ # of years)]-1.

[++] ICOR is calculated as the state's Rate of Gross Capital Formation/ Growth rate of Real GSDP. Thus, e.g., ICOR in 2015-16 was 3.44%/7.6%=0.45. We have considered the average ICOR over the period 2008-09 to 2015-16, which works out to 0.80.

The employment elasticity of demand is given by the formula:

$$e=\frac{\frac{\Delta L}{L}}{\frac{\Delta Y}{Y}}$$

Maharashtra's population grew at a 1.5% CAGR (decadal growth of 16 per cent) between 2001-2011. In 2011, the population of Maharashtra was 11.24 crores. With this CAGR, the expected population of Maharashtra in 2025 is likely to be 13.84 crores[2]. Maharashtra's employment in 2011 was at 4.94 crores in 2011 (Maharashtra Economic Survey, 2017-18), with the Workforce Participation Rate of 44 per cent. With the WPR remaining unchanged, and all other things remaining the same, the number of workers in 2025 would work out to 6.07 crores, necessitating an equal number of jobs.[3]

The employment elasticity for India has been estimated at 0.18 (for the period 1993-94 to 2011-12). If such employment elasticity estimates were to be taken as the imputed elasticity for Maharashtra, then a 14.86 per cent growth rate per annum would result in a 2.67 per cent growth rate in employment per annum. With an increase in employment of 2.67% CAGR, the state would be able to provide employment to 6.57 crores by 2025.[4]

We could also consider the sectoral employment elasticities and the growth rate of sectoral GSDP to consider the contribution that individual sectors would need to make to overall employment:

Sector	Elasticity (1999-2000 to 2011-12)	Sectoral Growth rate of GSDP (in per cent)	Sectoral Growth rate of employment (in per cent)
Agriculture	-0.08	-8.3	0.664
Mining	0.34	2.7	0.918
Manufacturing	0.33	7.6	2.508
Electricity, Gas, Wa-ter supply & Other Utility Services	1.17	7.6	8.892
Construction	1.01	4.5	4.545
Trade, Transport & Hotels	0.25	8	2
Finance, real estate	0.06	10.3	0.618
Other services	0.47	10	4.7
All sectors	**0.2**	**6.6**	**1.32**

CHART 10: SECTORAL EMPLOYMENT GROWTH RATES IN MAHARASHTRA

Source: *Calculations based on Maharashtra Economic Survey, 2017-18 and Reserve Bank of India, Handbook of Statistics on Indian States; Misra, S. and Suresh, A.K. (2014), "Estimating Employment Elasticity of Growth for the Indian Economy," RBI Working Paper Series No. 6, https://www.rbi.org.in/SCRIPTs/PublicationsView.aspx?id=15763.*

Thus, it appears that the scope of maximum growth of employment lies within utilities, construction and manufacturing. If India has to meet the demographic dividend challenge, focus should be on sectors/ industries. where the employment elasticity is greater.

Source: .

[2]https://cagrcalculator.net/reverse-cagr-result/

[3]These numbers are merely on account of population increase and do not consider the increases in the amount of labour force due to migrant labour from agriculture or other states. It also assumes the WPR to remain unchanged at 44 per cent. Obviously, the numbers would change for differing scenarios of growth rate of GDP, as also improvements in the employment elasticity, both at the aggregate and sectoral levels.

[4]The problem with the employment elasticity concept is that it does not consider the 'quality' of jobs.

Chapter 04

EXPERT SPEAK EMPLOYMENT ELASTICITY IN MAHA-RASHTRA: DATA AND INDICES

EXPERT SPEAK
EMPLOYMENT ELASTICITY IN MAHARASHTRA: *DATA AND INDICES**

01 Introduction

We gauge the sensitivity of employment to value added in Maharashtra Economy by applying the concept of employment elasticity to diverse data. Our analysis makes use of data published by Government of Maharashtra, National sample Survey, Government of India and Annual Survey of Industries, Government of India. While employment elasticity as an indicator is quite simple, defined as the ratio of proportionate change in employment to proportionate change in value added, measuring this indicator seems to be far from a simple exercise. However, knowing this indicator appears to generate useful cues on if economic growth triggers off expansion in employment. This paper attempts to measure employment elasticity by using three ways: (a) combining employment measured over irregular intervals and value added measured over regular intervals, (b) time series analysis of aggregates with respect to employment and value added for manufacturing sector, and (c) measuring the relation between employment and value added at factory level. The paper has five sections. Section 2 succinctly briefs about the concept of employment elasticity. Section 3 discusses data and analytical strategy. Section 4 provides findings of the analysis. Section 5 concludes the paper.

02 Conceptualizing Employment Elasticity

Using the logic of derived demand, micro economic theory of factor markets posits that as volume of value added by a firm goes up, labour demanded by the firm tends to increase. For a macro economy, at an aggregate level, this logic translates to the direct relation between employment and domestic product of the economy. Although veracity of this logic deserves more rigorous scrutiny in terms of data and models, an interesting outcome of this strand of reasoning is derivation of indices like Employment Elasticity, popularly used by scholars and diverse stakeholders who work in the policy making pertinent to employment in macro contexts.

Source:

** This section has been authored by Bino Paul, Professor, Tata Institute of Social Sciences, Mumbai and Muralidharan T, Chairman, TMI Group.*

While varying in the framework of analysis, there seems to be discernible consensus in defining this indicator. Put simply, employment elasticity refers to proportionate in employment to proportionate change in value added in an economy. The following equation symbolically presents the definition of employment elasticity.

$$e = \frac{\Delta E/E}{\Delta Y/Y}$$

e = Employment Elasticity
ΔE = Change in Employment, E = Employment in the base year
ΔY = Change in Value Added Y = Value Added in the base year

If e hovers around 1, for a unit increase in proportionate change in value added (ΔY/Y), proportionate change in employment (ΔE/E) will be the same, called equal proportionate change. Any value lower than one implies proportionate change in employment falls short of proportionate change in value added, while values that exceed one indicates that proportionate change in employment exceeds proportionate change in value added. If the value is negative, positive change in value added corresponds to negative change in employment. If the expansion of employment is the desirable outcome, maximizing employment elasticity that exceeds one will be the priority for the policy framework. Although employment elasticity is a simple measure, its computation is highly sensitive to the nature of data. Foremost, data with respect to employment and value added vary considerably in periodicity, particularly in Indian context. While value added is measured over a regular annual series, employment tends to be measured over an irregular interval.

03 Data and Analytical Strategy

We measure the employment elasticity for the state of Maharashtra, India. Our analysis captures a temporal span of decade from 2004-2005 to 2014-2015. For the state of Maharashtra, we use State Domestic Product (SDP) at constant prices as the magnitude of aggregate value added. We have obtained yearly time series of SDP from the website of Department of Economics and Statistics, Government of Maharashtra. However, for the employment, the updating of data is not as frequent as the value added since the data on employment is extracted different rounds of National Sample Survey (NSS) that were held in irregular intervals. In this paper, while the latest employment data comes from the last round of NSS employment and Unemployment survey (68th Round), capturing cross sectional micro data for 2011-2012, released in 2014, data of SDP is a regular annual series. For employment, change is defined as difference between figures from NSS 68th round (2011-2012) and NSS 61st Round (2004-2005). The proportionate change for employment (ΔE/E) is the Compound Annual Growth Rate (CAGR) between these rounds, while ΔY/Y is trend growth rate of SDP during 2004-2005-20011-2012. Following equations represent the computing processes with respect to ΔE/E and ΔY/Y.

$$\Delta E/E = [(E_{2011\text{-}2012} / E_{2004\text{-}2005})^{(1/7)} - 1] \times 100$$

$E_{2011\text{-}2012}$ = Employment Aggregates from NSS 68th Round
$E_{2004\text{-}2005}$ = Employment Aggregates from NSS 61st Round

$\Delta Y/Y = (e^{b} - 1) \times 100$; b is the parameter in the regression model

$$\text{Logarithm of SDP}_t = a + b\ \text{Time} + \text{error}$$

Subscript $_t$ = Year, Time = Year

It is important to note that the numerator (ΔE/E) of employment elasticity is a CAGR, computed over irregular intervals, the denominator ΔY/Y is a trend growth rate, capturing a regular time series.

Moreover, we disaggregate employment elasticity with respect to broader industrial categories: primary, secondary and tertiary.

An important question arises. What if we get both employment and value added measured over regular intervals? This is a feasible option for registered manufacturing since Annual Survey of Industries (ASI), Government of India, regularly updates data on factories, capturing production and employment statistics. While factory is the micro unit of this data, the data may be aggregated with respect to industry, region, and economy. We extract ASI data from 2004-05 – 2014-15 for the state of Maharashtra, containing a pooled data of 45.786 units. Now, ΔY/Y and ΔE/E are measured over regular intervals, we alter our analytical strategy. We posit Employment (E) as a function of Value Added (Y), generating a regression model:

$$\text{Log } E = a + b \text{ Log } Y + \text{error}$$

Log E = Logarithm of Employment
Log Y = Logarithm of Value Added at constant prices
b = Employment Elasticity
a = Constant

First, we estimate this model for the whole manufacturing over the years. Thus, we specify the time series version of the model as

$$\text{Log } E_t = a + b \text{ Log } Y_t + \text{error}$$
Subscript t implies year

Second, we apply the model to the pooled data of factories with an alternate specification:

$$\text{Log } E_i = a + b \text{ Log } Y_i + \text{error}$$
Subscript i implies factory.

04 Employment Elasticity in Maharashtra

Table 1 provides change in employment during 2004-05 – 2011-2012. We decompose employment into different segments, capturing self-employed, casual and regular wage work and engagement of persons whose principal status is wither not in labour force or unemployed in subsidiary employment. In aggregate, during this period employment grew merely 0.63 %. Quite astonishingly, even usual status employment of persons whose principal status is **unemployed contracted** by a whopping 22%. However, regular wage employment grew 4.4 %, while own account work expanded 3%. Another interesting trend is number of persons whose principal activity is unpaid domestic chores but being engaged in at least one-month employment show a visible growth. There are two segments within this category: attended domestic duties only and attended domestic duties and was also engaged in free collection of goods for household use. While the first segment reports 5.6 % growth, the second one shows 12 % growth. Table 2 presents trend growth rate of SDP of Maharashtra at constant prices during 2004-05 – 2011-2012. As shown in the Table, SDP grew by 9 %. While tertiary sector reports the highest (10 %), primary sector reports the lowest (4.4 %). Table 3 combines ΔE/E (Table 1) and ΔY/Y (Table 2) to compute employment elasticity in the State of Maharashtra. **Employment Elasticity for Maharashtra during 2004-05 – 2011-2012 is 0.1,** implying for a 10 % expansion in value added by the economy, employment will expand just 1 %. For primary sector, the value is (-) 0.4, while tertiary and secondary sectors report 0.3 and 0.2, respectively. Presumably, what may be surmised is expansion of employment in Maharashtra seems to be principally driven by the growth in tertiary sector.

Table 1: Growth in Employment (ΔE/E) (Maharashtra) 2004-05 – 2011-12

Labour Market Segment	Is Employed according to Usual Principal Status ? (Yes/No)	Is Employed according to Usual (Principal + Subsidiary) Status ? (Yes/No)	2011-12 (NSSO 68th Round)	2004-05 (NSSO 61st Round)	Employment Growth Rate (Compound Annual Growth Rate)
Worked in household enterprise self-employed own account worker	Yes	Yes	11557463	9431372	2.95
Employer	Yes	Yes	648293	969723	-5.59
Worked as helper in household enterprise	Yes	Yes	6611372	7912532	-2.53
Worked as regular salaried wage employee	Yes	Yes	11712743	8645314	4.43
Worked as casual wage labour in public works	Yes	Yes	124799	171601	-4.45
Casual labour in other types of work	Yes	Yes	10992905	13127662	-2.50
Did not work but was seeking and or available for work (Unmeployed)	No	Yes	42751	261995	-22.82
Attended educational institution	No	Yes	241874	479028	-9.30
Attended domestic duties only	No	Yes	1803270	1234767	5.56
Attended domestic duties and was also engaged in free collection of goods for household use	No	Yes	848739	380712	12.13
Rentiers, pensioners remittance recipients	No	Yes	24038	25241	-0.70
Not able to work due to disability	No	Yes	14872	6259	13.16

Source:
Computed by authors from NSS 68th Round and 61st Round Employment and Unemployment Survey unit records

Others	No	Yes	10556	53130	-20.62
Total Employed (Usual Principal + Subsidiary Status)			44633675	42699336	0.63

Table 2: Growth in Value Added (ΔY/Y) (Maharashtra) 2004-05 – 2011-12

	Ln State Domestic Product at Constant Prices (Aggregate)	Ln State Domestic Product at Constant Prices (Primary Sector)	Ln State Domestic Product at Constant Prices (Secondary Sector)	Ln State Domestic Product at Constant Prices (Tertiary Sector)
Independent Variable				
Year	0.088*** (0.00671)	.043 *** (.0135)	.085 *** (.013)	.096*** (.003)
Constant	-158.5*** (13.48)	-70.1*** (27.10)	-154.44*** (25.85)	--175.1023 *** (6.12)
Trend Growth Rate	9.2 %	4.39 %	8.9 %	10.1 %
Durbin Watson	1.70	1.92	1.60	1.55
R-squared	0.99	0.89	0.99	0.99

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: *Computed by authors from data published by Department of Economics and Statistics, Government of Maharashtra*

Table 3: Employment Elasticity (Maharashtra) 2004-05 – 2011-12

	2004-05 (NSSO 61st Round)	2011-12 (NSSO 68th Round)	Compound Annual Growth Rate (CAGR)	Trend Growth Rate (2004-05 - 2011-12)	Employment Elasticity
	Employment			State Domestic Product	
Primary	23570033	21067094	-1.6	4.4	-0.4
Secondary	7429684	8658933	2.2	8.9	0.2
Tertiary	11699618	14907647	3.5	10.1	0.3
Aggregate	42699336	44633675	0.6	9.2	0.1

Source: *computed from Tables 1 & 2*

As given in Table 4, **employment elasticity of manufacturing sector, in Maharashtra, during 2004-05 – 2014-15 is 0.5.** This means that for an expansion of 10% in value added, corresponding expansion in employment will be 5 %. Now, we turn to factor level data. As portrayed in figure 1, across years, the direct relation between employment and value added remains without discernible changes in patterns. However, the computed elasticity is 0.6 %, 0.1 % higher than that of time series aggregate (Table 6). Interestingly, if we compute elasticities with respect to different years, as shown in figure 2, over the years, elasticity forms a pattern of inverted U. During 2007-2011, elasticity show an upturn, and, then, during latter phase, a down turn. Not just across years, elasticity tends to vary, it varies across industries (Figure 3).

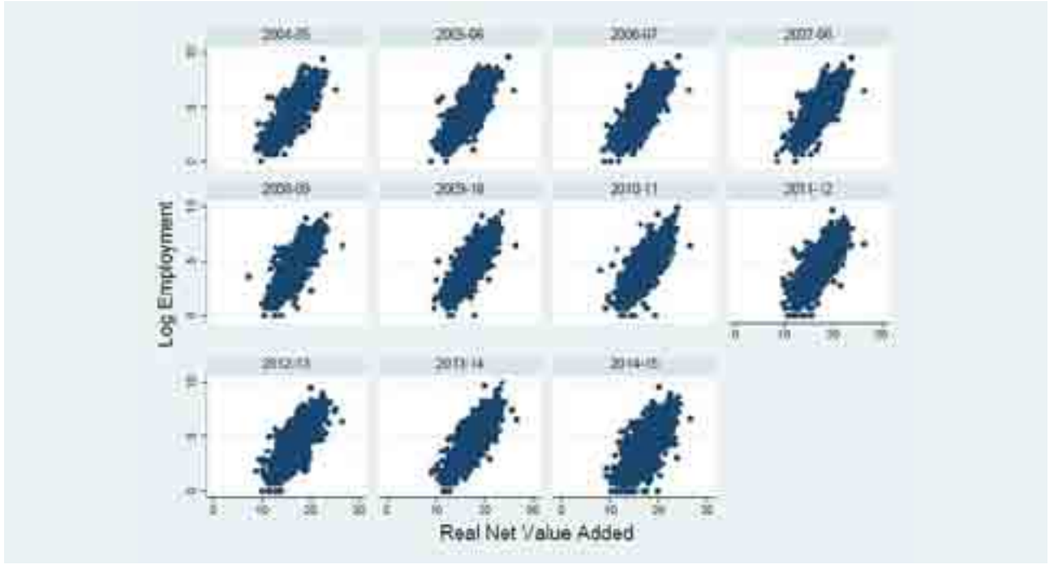
Table 4: Employment Elasticity in Manufacturing (Maharashtra) 2004-2005 – 2014-2015

	Ln Employment
Independent	
Variable	0.513*** (0.0822)
Ln Real Value Added	6.013*** (1.324)
Constant	
	2.11
Durbin Watson	0.99
R-squared	

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: *Computed from Annual Survey of Industry Reports*[12]

Figure 1: Employment and Value Real Value-Added Relation (Plant Level)



Observations = 45,786

Source: *Computed from Annual Survey of Industry unit records*

Table 5: Plant Level Employment Elasticity in Manufacturing (Maharashtra) 2004-2005 – 2014-2015

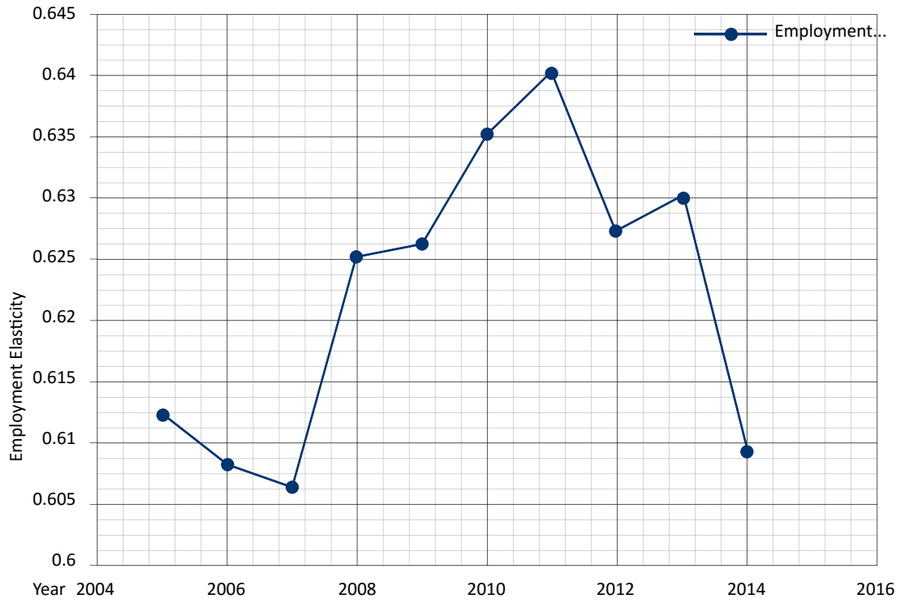
	Ln Employment
Independent Variables	
Log Real Net Value Added	0.621*** (0.00195)
Dummies for Year (Reference Group 2004-2005)	Yes
Constant	-5.855*** (0.0326)
Observations	45,786
R-squared	0.746

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: *Computed from Annual Survey of Industry unit records*

Source:

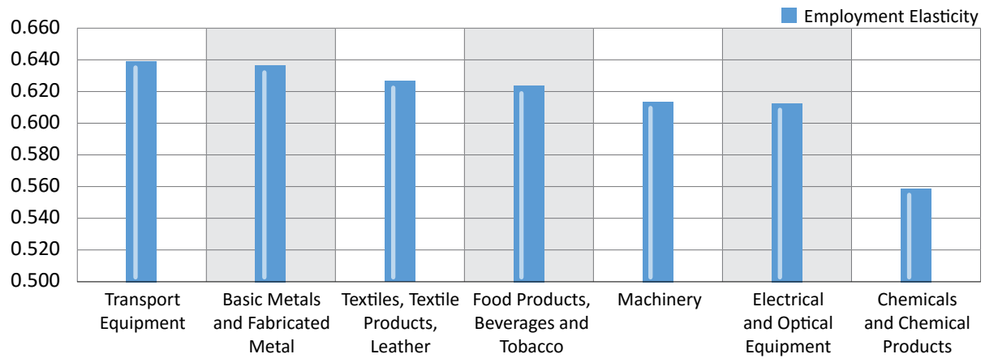
[12] *http://www.csoisw.gov.in/cms/en/1023-annual-survey-of-industries.aspx*



Notes: derived from Regression of Log of Employment on Log Real Net Value Added. Regression coefficients are statistically significant at 1%. Robust standard errors have been used.

Observations = 45,786 ***Source:*** *Computed from Annual Survey of Industry unit records*

Figure 2: Plant Level Employment Elasticity during 2004-05 – 2014-2015



Notes: derived from Regression of Log of Employment on Log Real Net Value Added. Regression coefficients are statistically significant at 1%. Robust standard errors have been used.

Observations = 45,786 ***Sorce:*** *Computed from Annual Survey of Industry unit records*

Figure 3: Plant Level Employment Elasticity in select Industries during 2004-05 – 2014-2015

05 Conclusion

Quite unequivocally, across industries and years, during last decade, the state of Maharashtra appears to have been treading thorough a path of sluggish expansion of employment albeit exponential growth in real value added. This points to the need for synergetic forces, emanating from the state, the industry, the labour, and the system of skill development, that bring cohesion between employment creation and sustainable economic growth. Is it important to trigger off a new trajectory through innovative reforms in labour supply-demand systems.? Do we need a more proactive minimum wage governance that creates incentive for employment expansion?

Chapter 05

INDUSTRIAL SURVEY ANALYSIS: CREATING JOBS FOR A $1TRILLION ECONOMY

INDUSTRIAL SURVEY ANALYSIS: CREATING JOBS FOR A $1 TRILLION ECONOMY

We conducted a survey to understand the opportunities and challenges posed by Maharashtra's business environment to creating a $1 trillion economy by 2025 and generating 1 billion jobs by the same time. The survey assessed 39 parameters pertaining to various aspects of the business environment and job creation. Additionally, the survey had an open-ended question on how the government could facilitate creation of jobs to support a trillion-dollar Maharashtra economy by 2025?

The salient findings of the survey, pertaining to the 39 parameters, are presented below:

- 56% of the respondents felt that that the region in which they operated had ample and good quality skilled labour
- 74% of the respondents felt the region where they operated had good connectivity with other regions in India
- 65% of the respondents felt that the region in which they operated had good connectivity with other regions of the world
- 62% of the respondents felt that the region where they operated had good transportation infrastructure- roads and railways
- 52% of the respondents felt that their region had good technical colleges
- 48% of the respondents felt that their region did not have a low cost of doing business
- 58% of the respondents felt that the region in which they operated had top class research universities
- 48% of the respondents felt that the region in which they operated had enough good schools
- 43% of the respondents felt that the region in which they operated had few engineers and scientists.
- 43.5% of the respondents felt that the region in which they operated had enough good quality natural resources
- 41% of the respondents felt that the region in which they operated did not have enough good health facilities, while only 30% felt that such facilities were adequate
- 76% of the respondents felt that the region in which they operated had adequate power supply
- 47.8% of the respondents felt that the cost of power in their region was a prohibitive factor, since it was not cheap
- 54% of the respondents felt that the region in which they operated had good financial sector institutions and easy access to credit
- 52% of the respondents felt that law and order situation in the region in which they operated was adequate and posed no problems
- 67% of the respondents felt that the region in which they operated had good telecom and IT connectivity
- 63% of the respondents felt that the region in which they operated had strong local competition
- 54% of the respondents felt that the region in which they operated had a good environment for start-ups
- 52% of the respondents felt that the region in which they operated had witnessed increasing investments from other companies in their industry
- 63% and 69% of the respondents testified that they were not the only player in the city and region of operation respectively, with there being other competition as well
- 54% of the respondents felt that the region in which they operated had a cluster of firms
- 43% of the respondents felt that there was collaboration between firms belonging to their industry in the region in which they operated
- 47% of the respondents felt that the region in which they operated had high quality and specialised suppliers catering to their industry
- 54% of the respondents felt that the region in which they operated had sufficient local demand for their goods and services
- 67% of the respondents felt that the region in which they operated had sophisticated customers who set trends and were demanding
- While 39% of the respondents felt that the industry demand in the region in which they operated had to be catered to by global suppliers, 43% did not share this view
- 42% of the respondents felt that the local level government bodies were not very responsive in the region in which they operated, while about 27% held a neutral stance
- 50% of the respondents felt that the region in which they operated had enough interest groups and bodies to represent their region nationally
- 56% of the respondents felt that the region in which they operated had no collaboration between industry and academia (universities) for creation and dissemination of knowledge, while 15% held a neutral stance
- 37% of the respondents felt that it was fairly easy to set up and start a new business in the region in which they operated
- 67% of the respondents felt that the region in which they operated posed difficulties in land acquisition
- 45% of the respondents felt that the state government had been active in the regional development within the region in which they operated, while 19% had a neutral stance
- 70% of the respondents felt that the region in which they operated was better developed compared to other regions in the state
- Only 38% of the respondents disagreed with the statement that they had reduced their labour employed in the past two years
- 61% of the respondents felt that they would hire more labour as business expands
- 89% of the respondents felt that they would adopt greater automation as business expands
- 37% of the respondents felt that the 'Make in Maharashtra/Make in India' campaign had not really helped their business grow, while 26% held a neutral stance
- 63% of the respondents saw a greater switch to automation within their respective industries

Thus, the survey can be analysed in terms of two parts:

A) Assessing the competitiveness of Maharashtra's business environment in facilitating economic growth
B) Assessing the intent of firms, experiencing economic growth, to employ more labour

As regards analysing competitiveness of Maharashtra's business environment in facilitating economic growth, we use Porter's 'Diamond Analysis' (Charts 11 A and B). A framework to understand regional economies and clusters is that articulated in *The Competitive Advantage of Nations,* by Professor Michael E. Porter of Harvard University. This framework states that the central economic goal for any region should be to attain and sustain a high and rising standard of living for its citizens. The latter itself is determined by the productivity of its economy. A region's productivity, as also productivity growth is determined by the quality of the regional business environment in which firms operate.

The **business environment** can be analysed in terms of the presence of four broad areas that affect productivity of firms operating in the region, as also the rate of innovations in the region. An analysis of these four areas constitutes the 'Diamond analysis', with the four areas of the 'Diamond' being:

- **Factor conditions**- Productivity growth, as also innovation levels in a region depend on the on the availability of specialised and high quality human resources, basic research, applied technology, infrastructure, and availability of capital that can cater to the needs of particular industries.

- **Demand Conditions**- Sophisticated local demand from local customers influence firms in a region to improve and create and offer better products and services.

- **Context for firm strategy and rivalry**- Productivity growth is also affected by the nature and intensity of local rivalry that firms face. Presence of strong competitors fosters innovations and productivity growth.

- **Related and supporting industries**- The presence of local suppliers capable of fulfilling the demand of firms in the region can enhance productivity and innovation.

The four areas of the "Diamond" discussed above are self-reinforcing and act as a system. They lead to the formation of clusters, within which the set of industries become mutually reinforcing.

CHART 11 A: ANALYZING MAHARASHTRA'S REGIONAL COMPETITIVENESS 2018: DIAMOND ANALYSIS

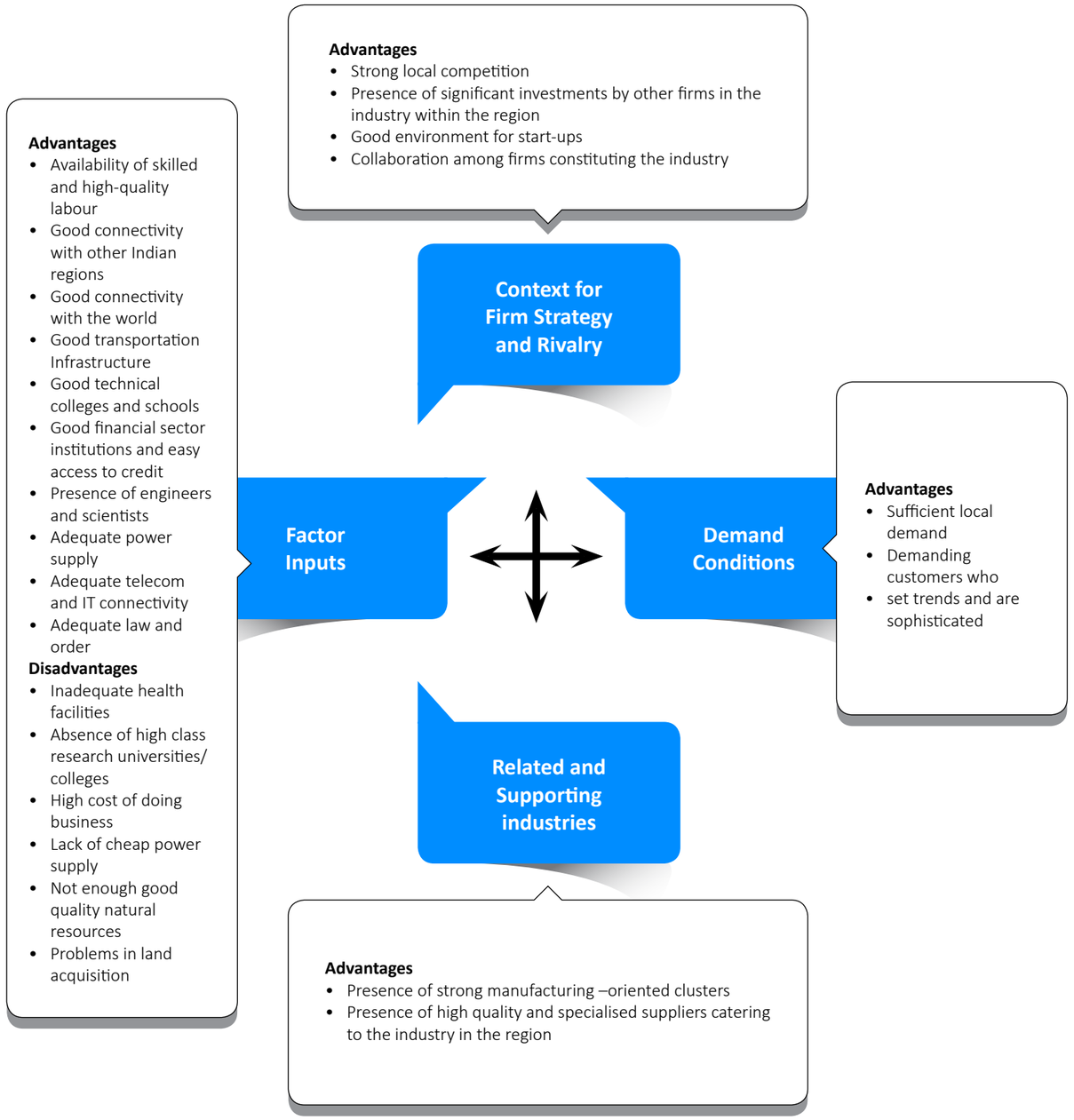
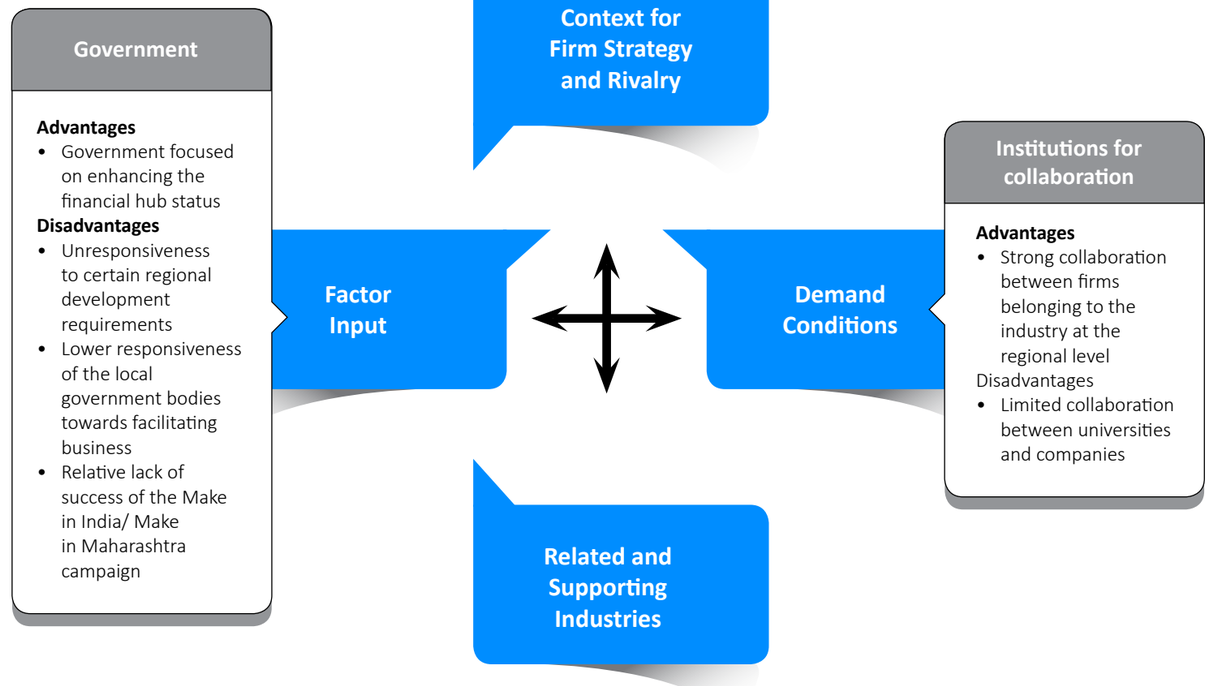


CHART 11 B: MAHARASHTRA'S BUSINESS ENVIRONMENT 2018



Based on such analysis, we conclude that while the pre-conditions for growth to take the economy to a trillion-dollar economy exist, there is not sufficient incentive for industry to increase the number of labour employed in industry. In fact, an overwhelming proportion of the respondents spoke of a move towards automation as the business expands. Given the historically anaemic labour laws, such a disposition towards a substitution of capital for labour is no surprising.

The government will need to look at the employment elasticities in various sectors in order to avoid the phenomenon of 'jobless growth'. As pointed out in the report earlier, the employment elasticity within agriculture is negative, and so has been agricultural growth. This has resulted in labour moving out of this sector.

Agriculture has a vital role in the state economy. As one of the most important sectors for providing livelihoods, the problem of low agricultural productivity and existence of disguised unemployment is of particular concern in this sector. The sector, within Maharashtra, continues to remain vulnerable to uncertain climatic conditions. This is the most important reason for shift of labour out of this sector. The state government will need to bolster growth in the agricultural sector in order to generate rural demand and prevent for a flight of labour from this sector.

At the same time, the government will need to play greater attention to more labour-intensive sectors to generate employment growth. In this context, the state government may pay attention to industries such as the textile and apparel industry, including yarn, sizing and warping, weaving, Dyeing ; Food and beverages industry including Packed food, Ready to Cook, Spices, Wine and Bakery items and Pharmaceutical industries.

As labour migrates from agriculture to non-agriculture sectors, such unskilled labour will need to be absorbed by other sectors of the economy. In this context, the MSME sub-sector in manufacturing has an important role to play.

During September, 2015 GoI issued a notification to all District Industry Centres about obtaining Udyog Aadhaar memorandum of MSMEs thereby furnishing all the information regarding their enterprise online. In December 2017, Maharashtra had a total of 3,58,837 MSME units, with an investment of ₹ 85,362 crore, generating employment of 27.55 lakh.[13] Nagpur division accounted for the highest percentage share of MSMEs, while Pune division had the highest employment generating potential of such MSMEs.

Further, in accordance with the Special Economic Zone (SEZ) policy adopted by the State with effect from February, 2006 in all 246 SEZ proposals have been received upto October, 2017. As on 31st October, 2017 in all 28 SEZs were executed with total investment of ₹ 35,024 crore on an area of 4,087 ha, which generated employment of about 5.25 lakh.

DIVISION	Number of MSMEs	Per cent share of MSMEs	Employment (lakh)	Per cent share in employment
Mumbai	30183	8.4	4.75	17.2
Konkan Division (excl. Mumbai)	57906	16.1	6.37	23.1
Nashik Division	34389	9.6	2.6	9.4
Pune Division	69702	19.4	7.23	26.3
Aurangabad Division	44050	12.3	2.86	10.4
Amravati Division	17949	5.0	0.82	3.0
Nagpur Division	104658	29.2	2.93	10.6
Maharashtra	**358837**	**100**	**27.55**	**100**

Sorce: *Economic Survey of Maharashtra, 2017-18*

CHART 12: DIVISION-WISE DISTRIBUTION OF MSMES AND EMPLOYMENT (October 2015- December 2017)

Note:

[13] Data pertains to up to December 2017. The manufacturing and services categories of enterprises have been classified into micro, small and medium enterprises (MSMEs) based on their investments in plant and machinery for manufacturing enterprises and on equipment in case of service enterprises.

Another important issue is that of addressing the issue of 'skills stability'. The World Economic Forum 'Future of Jobs Report'[14] reported on this problem. According to the Report, "the accelerating pace of technological, demographic and socio-economic disruption is transforming industries and business models, changing the skills that employers need and shortening the shelf-life of employees' existing skill sets in the process". The government will need to bolster schemes such as 'Make in India/Maharashtra', 'Skill India' and 'Digital India' in the light of this report. The challenge is not only to create employment, but also enable the workforce to adapt to the changing skills requirements accompanying technological progress.

The state government will need to implement smarter regulations in the field of labour employment to encourage job creation. This will also require greater attention to the quality, as also timely availability of employment statistics.

How can the Maharashtra government facilitate creation of jobs to support a trillion-dollar economy by 2025?

The survey also comprised of an open-ended question: How can the Maharashtra government facilitate creation of jobs to support a trillion-dollar economy by 2025?

The following were some of the responses received to this question:

By raising skilled training initiative and institutions providing practical based education rather than focusing on theory. On job training should be introduced and industry should train employees rather than using them as labour, for ex NEEM scheme, PMKVY and others etc. Government should educate youth about new sectors and also declare a list of skilled job requirements and etc.
Design specialized skills learning programs.
Ease of doing business, Skilled & easily available labour at reasonable rates, subsidized rates for electricity especially for hotel industry, etc. are some of the practices that can be adopted by the govt.
Reduce the corruption in all departments, reduce compliance burden, making things online doesn't make human interference lesser, government should note the same. Education syllabus of all skilled/college institutions should be made at par with industry needs, power should be made cheaper for small medium enterprises, which will help them to reduce cost. Training Institutes & credit support institution with all consultants should be made at one place to get all services under one roof for start-ups.
New projects be introduced like sea-water way transport, private aviation business subsidies and training to new entrants.
1) Target the lesser developed cities and towns in Maharashtra, encourage youth to work full time, acquire more skills, give opportunities to senior men and women to work flextime/ part time so that they remain busy active and healthy. 2) There is a rising need for all kinds of services especially health care and escort services for old people and young people don't have jobs, marry the two. 3) The need for home cooked and hygienic food is everywhere. Jobs and entrepreneurship ventures can be created in this space.
Creating industry-friendly education courses, so that good education can lead to innovative Make in India and Make in Maharashtra projects in both, government as well as private sector.
Government agencies need to be more sensitive and must implement the rules in true spirit to ensure safe and smooth growth.
India is best poised to attract a large number of manufacturing jobs as companies shift base from China due to high wages and an ageing workforce there. "With its large workforce and competitive wages, India would be a natural home for these firms."
Reduce the water problem for industry with some commissions on electricity tariff; Bring in single window clearance for obtaining licence to operate and also for renewals.

Source:

[14] http://reports.weforum.org/future-of-jobs-2016/skills-stability/

Provide better infrastructure with ease of govt licensing with skilled manpower
Make the environment business friendly; finance is a big problem; we don't want subsidies, we want fair assistance.
Support MSMEs more by implementing IPS scheme in letter & spirit
First the power tariff has to be controlled. That can happen only if theft and corruption is reduced. Government officers should be more accountable and responsive to all challenges of business owners.
Expansion of monetary policy + Expansion in fiscal policy + Increase in money supply through easy way in banking + Reduce rate of interest + Spend on public works + Spend on unemployment benefits and lastly cut on taxation.
1 Provide raw material by helping industries for MOU with suppliers so that industry can withstand competition. 2 Reduce electricity charges for high power consuming industries. 3 group in food or farmer products processing should not require FSSAI, FDA, agricultural permission or NA land rule. 4 give farm products processing industries facilities like those given to khadi Gram udyog i.e. loans, credits, taxes etc.
1. Even after paying for land cost MSMEs in Bhiwandi etc. area constantly harassed by farmers for VARAI. 2. Highest power tariff in the state, which is a huge burden on MSME, compared to any other state. 3. Harassment by Mathadi workers faced by all industrial units, irrespective of any zone. 4. No mechanism or penalty for delayed payment- Even though MSME act has provision for interest on delayed payment the same has not been incorporated in RFP or Supply orders. • Ref.- (The buyer is liable to pay interest on delayed Payment (Principal amount) at a rate three times of the bank rate notified by RBI, compounded with monthly rest. MSEFC should not award any interest rate other than this.) 5. Submission of PBG/EMD- MSME should be exempted from submitting EMD or PBG as puts lot of financial pressure. 6.Advance must for all awarded contracts without ABG. 7. DGCA should allow designated areas or allow companies to fly with intimation to local police and ATC for test flying equipment against confirmed government order. 8. Single Vendor- If MSME is a resultant single vendor, then there should be provision for concluding the tender as repetitive tendering and trials put lot of burden on the SME. 9. Maharashtra should also look for policies to promote industrial/aerospace park and schemes as adopted by Karnataka Government.
Encourage Start-up Culture, New businesses shall be given greater access to finance as the rejection rate is higher for such proposals.
Industries having up to 50 labourers should be free from any penalty or punishment under labour law. Government should work as facilitator not as a controller or ruler. Make an online system for any application which will give provisional approval immediate and after certain period if no any objection it will be treated as permanent.
Lower taxes on consumption, improve transportation infrastructure (rail, air and road connectivity), tax breaks on manufacturing (shipbuilding, construction, automobile), promote tourism through a more liberal social policy (offshore casinos, alcohol and vineyards, lower GST on entertainment, conversion of forts into hotels etc.), Promotion of green initiatives (research, new technologies, electric policy)
Make land available for SMEs easy so that they can expand fast

Chapter 06

EPILOGUE MAHA-RASHTRA: CREATING JOBS FOR A $1TRILLION ECONOMY

EPILOGUE
MAHARASHTRA: CREATING JOBS FOR A $1TRILLION ECONOMY

The challenge for Maharashtra as it transforms into a $1 trillion economy is to ensure that the state does not experience transformation of a type which may be called 'jobless growth'. Based on different estimates, the number of jobs that will need to be created to transform to a $1 trillion economy ranges from 0.49 billion (under the assumption of employment elasticity of 0.1) to 1.44 billion (under the assumption of employment elasticity of 0.18). The creation of jobs becomes prime since jobless growth dilutes the benefits that emanate from high growth, and in fact would result in exacerbation of existing inequities.

Towards this end, we recommend the following:

1. **Identify the sectors which aid employment generation and promote such sectors:** These are the sectors which display higher employment elasticities and include chiefly utilities, construction and other services. More attention will need to be paid to employment generation within these sectors.
2. **Pay attention to the agricultural sector:** The state government will need to pay attention to the agricultural sector, since it is a key sector employing a large proportion of the state's population. At this point, the sector is plagued by problems of low productivity and disguised unemployment. Government measures to reduce the vulnerability of this sector to climatic conditions will go a long way in preventing labour flight afflicted by distress from this sector. Further, productivity enhancing measures within agriculture will be required to engage labour meaningfully.
3. **Promote the MSME sector:** Even at the all-India level, the MSME sector is the second largest sector for employment in the economy. In December 2017, Maharashtra had a total of 3,58,837 MSME units, with an investment of ₹ 85,362 crore, generating employment of 27.55 lakh. The MSME sector is plagued by several problems, especially lack of access to credit. The Pradhan Mantri Mudra Yojana (PMMY) announced in the 2015 budget and the Mudra loans disbursed under the scheme since 2015-16 were aimed at addressing this challenge of "funding the unfunded" micro and small enterprises and integrating them with the formal financial system. However, the problem of credit disbursal under the Mudra scheme hardly addresses the crux of MSMEs' financing problems.[15]
4. **Emphasise on skill generation, as also skill stability:** As the pace of technological, demographic and socio-economic disruption accelerates, transforming industries and business models, the skills that employers need changes, while the shelf-life of employees' existing skill sets shortens in the process. The government will need to bolster schemes such as 'Make in India/ Maharashtra', 'Skill India' and 'Digital India' in the light of such challenges to skill stability . The challenge is not only to create employment, but also enable the workforce to adapt to the changing skills requirements accompanying technological progress.
5. **Availability of credible and timely data:** Both at the all-India level, and more so at the state level, there is lack of credible and timely data regarding employment generation. This needs to be addressed. For instance, much of the current debate around the MSME sector, especially its productivity, contribution to the gross domestic product and employment, has been taking place in the absence of accurate data and analysis. Such data collection may be facilitated by a nodal agency such as the National Small Industries Corporation (NSIC) through a budgetary allocation. Appropriate incentives may be provided for small and medium enterprises which register with the NSIC and demonstrate a good repayment record, in terms of cheaper credit facilities.

Given that more than 12 million people enter the labour force annually, it is important to carry out frequent periodic assessment of the labour market. Also, it is important to be able to assess the numbers who are employed in the unorganised sector, seasonally employed or self-employed.

Source:

[15] See for instance, Jayakumar, T. (Jan 30, 2018), "Budgetary expectation for MSMEs," Livemint, https://www.livemint.com/Opinion/lMVUZuz23oF8ev7vlAks8J/Budgetary-expectations-for-MSMEs.html

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MESSAGE FROM FICCI



Jaspal Bindra
Chairman
FICCI- Maharashtra State Council
Mumbai

We are extremely happy to collaborate with SPJIMR, one of the leading business schools from Maharashtra, for bringing out this publication. The report aims to identify key sectors and policy interventions required for the robust economic growth of Maharashtra.

We will continue to expand our reach for identifying areas of concerns for the industry and possible ways of addressing them under the Progressive Maharashtra initiative of FICCI. Progressive Maharashtra aims to help building a sustainable competitive advantage for the industry through its various programmes and initiatives such as this report. Promoting Industry academia partnership is one of the key pillars to this strategy.

We look forward to building similar partnerships in future.

MESSAGE FROM SPJIMR



Dear friends:

All of us at SPJIMR are delighted and proud to partner with FICCI in authoring this report on the economy of Maharashtra and the road ahead to faster growth.

As a progressive State with a rich ethos and history, Maharashtra has offered leadership to the nation on a range of social, cultural,political and economic matters. The State has been an economic leader from the very early days. An account from AD 640 records how the Chinese pilgrim Hiuan Tsang was impressed by the prosperity of the country, the efficiency of the administration and the character of the people.

Today, as India prepares to grow faster, Maharashtra has an important role to play in driving a new wave of growth. A report such as this and conferences and initiatives of the kind we are gathered here for, are important milestones in this journey.

As a leading school of management, SPJIMR stands ready to play its part and help contribute to creating the conditions for growth that is robust, inclusive and sustainable.

Dr.Ranjan Banerjee
Mumbai,
October 2018



Shri Narendra Modi
Prime Minister of India

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