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ISSUE NO:100, FY19**LIMITED GAINS IN LABOUR PRODUCTIVITY EMPHASIZE INDIA IS CURRENTLY GOING THROUGH A WAGE PROBLEM, BUT NOT JOBS!**

We believe the current cacophony of jobless growth is not correct, as India is witnessing an era of declining labour productivity growth across sectors thus limiting the gain in wages! In fact, we are now in an era of low wage growth. This also holds important lessons for monetary policy setting as the familiar nexus if any, between wages and prices then breaks down!

Using KLEMS data, we estimated the productivity of various sectors during FY17-FY19. Our results show that though the productivity ratio has registered improvement, the overall productivity growth remains relatively stagnant (9.4% to 9.9%) in the last six years, barring FY15. Sector-wise, service industry shows better productivity growth. Contrary to market perception, it is declining productivity growth in agriculture which has led to overall stagnant growth.

However, what is more interesting is that the productivity gains in India in the manufacturing space were more significant prior to 2008. In effect, a drop in bargaining power along with a rise in mark-up of industries explained gradual decline in labor share which in turn explains a rise in productivity, prior to 2008. Interestingly, post 2008 with slowdown in global trade, labour productivity growth has declined as per our estimation.

We believe, such slowdown in manufacturing productivity growth finds ramification in the series of aggressive stock buybacks by Indian corporates which allows them to boost their earnings without having to invest in productivity gains. During 2018 and 2019 (till now), Indian companies have done a buy back of 1952 lakh shares!

India lags significantly in terms of labour productivity. Even in the next decade i.e., by 2021 it is estimated that India's output per worker will rise to just \$6,414 compared to China's \$16,698. The gap, therefore needs to be bridged through policy changes. Persistent low productivity encourages over-borrowing by corporations and households; private debt crises, in turn, represent a big risk to economies and fiscal systems. A similar logic applies to the social and political impact of low productivity growth. Policies could be adaptive or mitigating to address such limited gains in productivity. These could imply freeing up fiscal space and or strengthening healthcare and education among others.

We also recommend that EPFO starts publishing non-farm productivity at least for those sectors for which we have output data from CSO's GVA database. By mapping payroll data with output data we will be able to fill a huge lacuna in the area of productivity estimates in India!



GROWTH IN LABOUR PRODUCTIVITY IS SLOWING DOWN ACROSS SECTORS

- ◆ Low productivity is one of the root causes of the “working poor” phenomenon: people who work long hours, often in the informal economy or in subsistence agriculture, do not earn enough to feed their families. Raising Labour productivity is therefore of critical importance for better wages. The virtuous circle of productivity, employment and development can only be fueled through the re-investment of productivity gains into product and process innovations, plant and equipment improvements, and measures to enhance the skills and improve work and compensation of the workforce.
- ◆ Productivity refers to how efficiently resources are used; it can be measured in terms of all factors of production combined (total factor productivity) or in terms of labour productivity, which is defined as output or value added divided by the amount of labour used to generate that output. Labour productivity increases when value added increases through better use, coordination, etc. of all factors of production. Value added may increase when labour is working smarter, harder, faster or with better skills, but it also increases with the introduction of technological innovations. Labour productivity offers a measure of economic growth, competitiveness and living standards within a country.
- ◆ There is a growing concern of stagnating productivity in not only developed nations, but also in the developing countries that are clearly witnessing uncertain shifts in the productivity levels. Our estimates show that in India there has been a growth in the labour productivity as a ratio and in terms of growth as well, however the output has not complemented equitably. The manufacturing sector output, which holds the key to employment is lower than the average overall CAGR, while services records a higher than average growth.
- ◆ Post the reforms of 1991, India's productivity performance in most sectors is lacking the required vitality. According to RBI KLEMS data (this include measures of economic growth, employment creation, capital formation and productivity at the industry level from 1980-81 onwards), apart from post and telecommunications, no remarkable gains have been achieved in sectors such as Agriculture, Textiles, Transport Services and so on till 2015-16. In fact, productivity has seen a decline in crucial sectors, including Education and Health. Further, even if productivity gains have been achieved in some sectors, that is due to use of efficient technology and machinery and relatively lower concentration of labour.
- ◆ Using KLEMS data, we estimated the productivity of various sectors during FY17-FY19. Our results show that though the productivity ratio has registered improvement, the overall productivity growth remains relatively stagnant (9.4% to 9.9%) in the last six years, barring FY15. Sector-wise, however service industry shows better productivity growth. Contrary to market perception, it is declining productivity growth in Agriculture which has led to overall stagnant growth. This is consonant with the stagnation in productivity growth in the advanced economies, which is a puzzle. Interestingly, manufacturing productivity growth that had declined precipitously in FY17 has picked up pace now, but is still much lower than FY16 levels when it peaked. Productivity in construction sector had turned negative in FY16 and FY17.

Growth Trends in Output	
Sector	CAGR (FY12 to FY18)
Agriculture & Allied	9.06
Industry	10.03
Mining & quarrying	6.98
Manufacturing	10.61
Electricity, gas & water supply	14.74
Construction	8.57
Services	13.00
Trade, hotels, transport & communication	12.16
Financing, insurance, real estate & bus. Services	13.29
Public administration, defence and Other Services	13.68
Overall	11.38

Source: SBI Research

Sector	Productivity Ratio (Rs crore per 100 workers per hour)								Productivity Growth (%)						
	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Agriculture & Allied	0.27	0.31	0.35	0.40	0.44	0.51	0.56	0.59	15.5	15.2	12.5	10.3	15.1	9.9	6.0
Industry	0.98	1.05	1.07	1.11	1.16	1.19	1.25	1.34	7.1	1.6	3.7	4.6	3.1	4.7	7.3
Mining & quarrying	4.03	4.49	4.57	4.85	4.71	5.20	5.72	6.88	11.4	1.9	6.1	-3.0	10.5	10.1	20.3
Manufacturing	1.02	1.15	1.21	1.32	1.51	1.62	1.75	1.94	11.8	5.5	9.5	14.1	7.6	7.6	10.9
Electricity, gas & water supply	6.96	7.90	9.08	9.68	11.31	11.64	13.58	15.30	13.4	14.9	6.7	16.8	2.9	16.7	12.6
Construction	0.64	0.64	0.62	0.61	0.57	0.57	0.58	0.61	1.0	-3.1	-2.1	-6.7	-0.1	2.6	4.2
Services	1.14	1.31	1.43	1.60	1.75	1.92	2.12	2.34	14.8	9.1	12.4	9.2	9.4	10.5	10.4
Trade, hotels, transport & communication	0.74	0.86	0.94	1.05	1.15	1.26	1.38	1.53	17.4	8.7	12.2	8.8	9.5	10.0	10.6
Financing, insurance, real estate & bus. Services	5.04	5.51	5.86	6.31	6.61	6.85	7.15	7.52	9.4	6.2	7.6	4.8	3.6	4.3	5.3
Public administration, defence and Other Services	0.81	0.91	0.98	1.11	1.22	1.37	1.56	1.75	12.3	7.2	13.3	10.1	12.0	14.1	11.8
Overall	0.69	0.78	0.86	0.95	1.04	1.14	1.25	1.38	14.1	9.3	11.2	9.4	9.8	9.8	9.9

Source: SBI Research

PRODUCTIVITY IN AGRICULTURE

- ◆ The productivity (defined as output in Rs crore for per 100 workers per hour) has increased from Rs 0.27 crore in FY16 to Rs 0.59 crore in FY19. However, growth in agriculture productivity has been following a downward trend which is a cause for serious concern. It thus appears that agriculture sector has been witnessing growth in output while at the same time people are leaving agriculture as a source of profession, thereby leading to rise in productivity, but only at the margin. It is possible that increasing thrust given to allied activities including horticulture and floriculture has contributed to movement of laborers away from agriculture towards these activities.
- ◆ Meanwhile, higher output has been possible owing to a combination of adoption of technologically advanced farming techniques, better and advanced farm equipment, improvement in roads infrastructure (which has resulted in reduction transportation time leading to less wastage and thus higher yield) and better awareness among farmers.
- ◆ The limited rise in agriculture productivity has also an interesting connotation. Contrary to popular perception, the decline in across the board food prices cannot be solely attributed to rise in agriculture productivity. Vegetables, fruits pulses, eggs and sugar are infact witnessing deflation in recent months and it seems the decline in food prices reflects structural break in food prices over a longer term. This could be the result of prudent supply management or even a change in behavioral habit of people.

PRODUCTIVITY IN INDUSTRY

- ◆ Productivity and growth debate in the industry sector has evolved with changing industrial regulations. Higher productivity in industry is explained mostly through the improvement in technical efficiency. Meanwhile, the studies finding no encouraging productivity growth post-reform period have pinned down the reasons on suboptimal use of capacity and declining returns to technology.
- ◆ KLEMS data and our own estimation reveals that productivity in the industrial sector has been improving but only at the margin in all the sub-sectors except construction in the most recent period. However, what is more interesting is that the productivity gains in India were more significant prior to 2008, at least as far as per as developing economies are concerned. For example, the trend of a sample of developed and developing economies in Asia for the period from 1960 to 2015 shows that the labor share typically begins to fall in all economies systemically from around the late 1980s to early 1990s. This is the period when trade grew at a faster rate. No doubt, trade redistributes the allocation of resources and thereby changed the resultant factor payments in such a way that must affect the distributive share of labor, specifically when the markets are imperfect.
- ◆ Using the disaggregated data of Indian industries from 1998-2008, an ADB study has found that labor bargaining power drops with the interaction of trade. Labor share, measured as a percentage of gross value addition (GVA), drastically dropped from 28.0% in 1980 to 10% in 2007-08 in the industrial sector. The drop itself seems to represent the weakening bargaining position of workers and thus productivity gains were significant. Thus, a drop in bargaining power along with a rise in mark-up of industries explain gradual decline in labor share which in turn explains a rise in productivity, prior to 2008. Interestingly, post 2008 with slowdown in global trade, labour productivity growth has declined as per our estimation.
- ◆ We believe, the recent slowdown in manufacturing productivity growth finds ramification in the series of aggressive stock buybacks by Indian corporates which allows them to boost their earnings without having to invest in productivity gains. This is all the more possible as corporates have been undergoing deleveraging in the last couple of years and thus finding innovative ways to boost earnings. During 2018 and 2019 (till now), Indian companies have buy backed 1952 lakh shares.

Companies buyback of equity shares in 2018 & 2019	
Company	Total buyback (Lakh Shares)
ADF Foods Ltd	19.6
Akzo Nobel India Ltd	40.4
Alembic Ltd	49.4
Balrampur Chini Mills Ltd	154.1
Bosch Ltd	6.5
BSE Ltd	19.8
Cyient Ltd	17.7
DCM Shriram Ltd	99.2
eClerx Services Ltd	0.0
FDC Ltd	134.9
Goldiam International Ltd	40.7
HEG Ltd	61.8
ICRA Ltd	3.5
Indiabulls Real Estate Ltd	1100.5
Just Dial Ltd	22.4
Lakshmi Machine Works Ltd	2.7
Mcleod Russel India Ltd	49.6
Music Broadcast Ltd	33.9
Natco Pharma Ltd	23.7
Oriental Carbon & Chemicals Ltd	3.1
Persistent Systems Ltd	5.5
R Systems International Ltd	19.4
Selan Explorations Technology Ltd	13.5
TD Power Systems Ltd	20.7
Thyrocare Technologies Ltd	9.6
Grand Total	1952.1

Source: SBI Research

PRODUCTIVITY IN SERVICES

- ◆ The service sector has registered good productivity gains, well reflected by its over 7% growth registered in all three quarters of FY19. The services sector has registered a productivity growth of 10.5% in FY18 and is expected to log in a growth of 10.4% in FY19. The sector carries 32% of the 50 crore workforce but accounts for over 55% of the output.

- ◆ However, there are worrying signs too! Among the services, real estate, dwelling and professional services which form the bulk of the services have shown a declining trend in GVA. This is disturbing as the IT services which are our primary exports are included in this.
- ◆ Another major component, financial services has also witnessed a decline in GVA over the years. Communication and Broadcasting has registered a negative growth in FY18. Meanwhile, trade and repair services, which form the second largest component of services in GVA, has been growing consistently at more than 10% over the past few years.

PRODUCTIVITY GAP BETWEEN INDIA AND OTHERS

- ◆ Although productivity growth has slowed in most of the advanced nations, their levels of output per worker still tends to remain notably higher than that of India. As per the latest data (2017), the output per worker of India is way below the advanced as well as the developing countries. Even in the next decade i.e., by 2021 it is estimated that India's output per worker will rise to just \$6,414 compared to China's \$16,698. The gap, therefore needs to be bridged.
- ◆ As firms need land, labour and capital for output, more efficient firms can come up with higher output only if they have better access to these factors of production. It is not difficult to understand if land gets misallocated, it is bound to have severe repercussions on capital allocation through financial markets for the simple reason of loan collateral required by most lending corporations. It has further implications for factor productivity of our firms. Therefore, meaningful productivity gains can be made by reducing factor misallocation to a considerable extent. For this it is imperative that we do efficient factor market reforms and this could be the reforms that must be carried forward by the new Government. Needless to mention, the real challenge for India lies in creating a large number of high-productivity opportunities for its labour force where the right mix of skilling must take centre stage.

Output per worker (\$)	
US	110800
EU	81878
Brazil	25027
China	13084
India	5044

Source: Business Today; SBI Research

IMPACT OF LOW PRODUCTIVITY & POLICY IMPLICATIONS

- ◆ Lower productivity growth results in widening of productivity gaps along some dimensions (e.g., between leading and new firms) and to a narrowing along others (e.g., between some countries, depending upon their adaptability). These differential impacts will have meaningful consequences for the development of inequality, capital flows and political economy. There are clearly some negative fiscal implications, but where and how much they bite are heavily dependent upon the nature of tax systems, the structure of pension and insurance frameworks, and their interaction with a country's demography. And to the extent that a lower long-term growth rate prolongs the current period of very low interest rates, it will have implications for financial stability and monetary policy as well.
- ◆ The effects of slower productivity growth will be largely negative:
 - In most fiscal systems, revenues and most expenditures are indexed to average wages. As a result, slower productivity growth is much less of a threat to the sustainability of these systems than for example, population ageing. At the same time, slower productivity growth will have destructive consequences through previously overlooked channels.
 - Persistent low productivity encourages over-borrowing by corporations and households; private debt crises, in turn, represents a big risk to economies and fiscal systems.
 - A similar logic applies to the social and political impact of low productivity growth. As long as it remains positive, slower productivity growth cannot in itself create new social problems. This conclusion can change radically, however, if productivity growth moves along with higher inequality or if voters find past promises and expectations disappointing.
- ◆ Another useful way of thinking about the **policy implications** of the analysis is to understand distinction between mitigation and adaptation. Policies could be adaptive—in the sense that they seek to minimize the economic and social costs of the productivity slowdown—include defending or freeing up fiscal space, strengthening automatic stabilizers, preventing financial crises, and rebalancing tax incentives in a way that encourages labor force participation. If, however, slower productivity growth and higher inequality have common causes policies should not stop here but rather try to mitigate these causes directly. These policies include the following:
 - Reducing tariff and nontariff trade barriers would help offset the adverse impact of the productivity slowdown and mitigate the productivity slowdown itself.
 - Facilitating the mobility of workers would enhance allocative efficiency (and hence aggregate productivity) and strengthen the bargaining power of workers.
 - Strengthening education and universal healthcare would increase labor productivity and allocative efficiency by making it easier for workers to move across firms.

LOW PRODUCTIVITY IMPLIES WE ARE IN AN ERA OF WAGELESS GROWTH

- ◆ The previous decade has seen stagnant productivity levels with marginal growth in the wages unlike the pre-2008 period when there was a drop in bargaining power of labour and a rise in mark-up of industries.
- ◆ The wage growth has also been witnessing signs of moderation, on yearly as well as sequential basis. This moderation in wages also implies important lessons that can be deciphered from policy setting. For example, if wage growth is slow, it also implies that familiar wage price nexus is not working and this could result in moderation of inflation expectations.

WE MUST ENCOURAGE PUBLISHING OF LABOUR PRODUCTIVITY DATA THROUGH EPFO

- ◆ For the last one year India has been publishing non-farm payroll data every month from EPFO, ESIC and NPS establishments. This is a remarkable upgrade over survey-based quarterly results in terms of data quality and frequency. However, the data from these establishments is still evolving and will take time to stabilize. Regarding EPFO payroll data, the two major demerits are:

- **Frequency of revisions:** After a period of three to four months the data with monthly frequency should be stabilized but this is not the case with EPFO payroll data. The payroll numbers of Sep'17 month, which was first released in Apr'18 are updating regularly for the last 12 months. This is quite puzzling that even the data of Sep'17 has not stabilized.
- **Extent of revision:** In monthly data the extent of revisions should be within the limits (as in the case of CPI, WPI, IIP, etc.) compared to quarterly and annual data. But with EPFO data the revisions sometimes are huge. Take an example of Mar'18 numbers. When Mar'18 payroll data was first released in May'18 release, the number was 6,13,134. In the latest release (Mar'19), the Mar'18 number plunged into negative territory. **However, EPFO seems to have realized that such data revisions could be the result of non uniform treatment of person joining and existing the EPFO. Thus as per EPFO, the particular age band includes the members who joined prior to September 2017 but exited during the period September 2017 onwards.**
- ◆ Despite these limitations, a logical step forward in this direction is the publication of non-farm productivity by EPFO at least for those sectors for which we have output data from CSO's GVA database. By mapping payroll data with output data we will be able to fill a huge lacuna in the area of productivity estimates in India.

Sequential wage growth of listed entities			
Qtr	No. of Entities	Emp. Cost (Rs in Cr)	Growth (%)
Mar'15	4483	111194	-
Jun'15	4503	116043	4.4%
Sep'15	4472	117757	1.5%
Dec'15	4487	120702	2.5%
Mar'16	4464	123064	2.0%
Jun'16	4472	127248	3.4%
Sep'16	4432	130792	2.8%
Dec'16	4444	131277	0.4%
Mar'17	4400	135051	2.9%
Jun'17	4369	136068	0.8%
Sep'17	4331	139346	2.4%
Dec'17	4277	141505	1.5%
Mar'18	4227	154276	9.0%
Jun'18	4165	151931	-1.5%
Sep'18	4165	157154	3.4%
Dec'18	4165	161035	2.5%

Source: CLine; SBI Research

ABOUT US

The Economic Research Department (ERD) in SBI Corporate Centre is the successor to the Economic and Statistical Research Department (E&SRD). The latter came into being in 1956, immediately after the State Bank of India was formed, with the objective of “tendering technical advice to the management on economic and financial problems in which the Bank has interest and which required expert analysis”.

After the first reorganization of the Bank, when specialized departments like Management Science, Management Information Systems, Planning and Market Segment Departments took over the statistical work of E&SRD, the Department was renamed as ERD.

However, with the ERD team now taking on multidimensional functionalities in the area of risk management , corporate analytics, strategy and so on, who knows, the time may have come to rename it again!

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