



Munich Personal RePEc Archive

Globalisation, technology and employment: looking back

Majumder, Rajarshi

Department of Economics, The University of Burdwan

2020

Online at <https://mpra.ub.uni-muenchen.de/110077/>
MPRA Paper No. 110077, posted 08 Oct 2021 18:20 UTC

Globalisation, Technology and Employment: Looking Back

Rajarshi Majumder

Professor, Department of Economics, University of Burdwan

I. INTRODUCTION

Globalisation has been the buzzword across the world for a major part of the last 40 years or so. What started as a pulsating shift in the mid-1980s, turned into a tectonic movement by early 1990s and has advanced at unprecedented pace over the last two and half decades. Trade barriers have come down, linkages have been formed and strengthened, and a plethora of economic activities have become intertwined, across countries and continents. The global value chain is now a reality that none can ignore. This has been accompanied by technological advancements across the globe – albeit at different pace and form – changing the structure & organisation of the workplace. These two have gone hand in hand and fed into each other – globalisation helping in proliferation of technology across countries and technology facilitating the process of globalisation. As societies and economies became interconnected, it was expected that slowly a borderless global village shall emerge and usher in socio-economic development at a faster pace in the developing countries across the world. Disparities between the global North and global South, it was argued, would not disappear, but there would be converging tendencies. It was also hoped that as economic growth became more widespread, there would emerge increasing demand for labour in the developing economies and employment conditions would improve – both quantitatively and qualitatively. However, after a quarter of century, voices are being raised regarding inequalities and instabilities in the labour market. Against this backdrop, this paper attempts to explore global trends in the world of work and also examine how globalisation and technological changes have affected the labour market in different sets of countries over the last 25 years or so.

We have mostly used the Labour Market data (ILOSTAT) obtained from International Labour Organisation (ILO), which has been supplemented by Economic and Social Indicators obtained from the World Bank and other sources (for details see Reference section). We have selected 194 countries for the study, which have been further clustered into geographical and economic groups for an exploratory analysis.¹

II. THEORETICAL PREMISE AND EXISTING STUDIES

The general argument *For Globalisation* starts with the basic Heckscher-Ohlin (Ohlin, 1933; Ohlin and Heckscher, 1991) structure where the developing countries have relative comparative advantages in production of labour-intensive commodities while the developed countries have advantage in production of capital-intensive commodities. In this situation, trade liberalisation will trigger a trend of specialization across countries where production of labour-intensive commodities will shift to developing countries, leading to expansion of employment and output therein. Liberalisation of investment policies, both domestic and international, would also boost economic growth as surplus capital from developed countries (which already face very low domestic interest rates) would flow to developing countries to take advantage of cheap labour power there. Employment expansion would not only be limited to direct job creation in the manufacturing sector, but also through expansion of the services sector (Lall, 2004). Once this happens, demand for even unskilled labour in developing countries would increase, bringing down disparities in domestic wages and income (Stolper and Samuelson, 1941). These arguments were splashed across the mainstream media in the heydays of early 1990s painting a rosy picture for the impoverished developing countries if only they did away with all economic shackles and barriers.

However, other economists have countered these theories over time, advocating restraint and caution while embracing globalisation as a panacea. This school of thought, often termed (mistakenly) as *Anti-Globalisation* group pointed out that the concept of comparative advantage depends on an unrealistic assumption of homogeneous production functions across different countries (Grossman and Helpman, 1991). Also, the new & 'improved' technology that almost always accompanies new investment (both domestic and foreign) in developing countries would be frequently labour-saving in nature (Haddad and Harrison, 1993; Coe et al., 1997; Aitken and Harrison, 1999; Kathuria, 2001). This is so as corporations with a global presence would look at productivity as the key factor and global capital being cheap, would invest more in machines than men. As a consequence, employment gains in developing countries would not be as much as theoretically expected. Also, globalisation of the 1990s was different from that of the earlier decade in that it was not limited to dismantling of trade & investment barrier, but increasingly associated with structural changes in the developing countries. This included, but was not limited to, financial sector deregulation, withdrawal of state from productive activities, easier exit policies for corporates, and removal of social safety net. These were apprehended to create instability in the labour

market and increased domestic inequality, many of which were observed to be true after a decade (Rodrik, 2000; Milanovic, 2003).

The net results of globalisation on domestic employment and income scenario of developing countries therefore would depend on the relative strengths of employment augmenting effects and the ‘crowding out’ or labour displacing effects and there is no univocal theoretical conclusion as to which would prevail. Empirical studies have pointed out that employment impact of globalisation is country and sector specific [Lee and Vivarelli, 2004; Basu and Weil, 1998; Gros, 2004]. Under such circumstances, it becomes prudent to look at the current trends in the world of work across the globe and enquire how globalisation has affected these in different sets of countries.

III. GLOBALISATION

To start with let us spend few words to explain what we mean by globalisation and what can capture the extent of globalisation. World Bank (2002) understands globalisation as growing integration of economies and societies around the world. Stiglitz (2002) defines globalisation as removal of barriers to free trade and closer integration of national economies. Thomas Friedman speaks of globalisation as emergence of ‘an integrated system with unique rules, logic, pressures and incentives driven by international capitalism with broader, faster, deeper flow than anytime in the past’ (Friedman, 1999). Rourke and Williamson (2000) conceptualised globalisation as ‘integration of international commodity markets’ and delineated three distinct phases in the history of economic globalisation. According to them, though the final decade of 15th century has been hailed by historians as the start of globalisation (Columbus and Vasco-da-Gama connecting Americas and Asia to Europe respectively), the next three centuries were practically a phase of Mercantilist protectionism rather than globalisation. It was the beginning of the 19th century that truly marked the start of the first phase of globalisation. This phase was marked by drop in transport costs and time, massive human migration (estimated 60 million people moved from Europe to North America), and flourish of international trade. It continued for almost a century till the First World War marked a break. The next 50 years was characterised by a retreat from globalisation – high import tariffs (infant industry argument?), reduced international capital flows, immigration restrictions, and also the Great Depression in between two World Wars. It was only since early 1980s that we have seen a revival of the liberal trade policies as a cornerstone of development agenda pushed by the international economic agencies. Since

then globalisation (and its criticism) has been at the centre stage of economic debates and discussion for nearly four decades now.

But how to measure the extent of globalisation and how to examine whether the world is being more globalised or less? Celebrated British physicist Lord Kelvin once observed: “When you can measure what you are speaking about, and express it in numbers, you know something about it. But when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind.” Hence there has emerged a number of indices over the last decade or so to measure and represent the extent of globalisation in numbers (Maastricht Globalization World S, 2000; KOF Globalization Index, 2002; CSGR Globalisation Index, 2005; A.T. Kearney/Foreign Policy Magazine Globalization Index, 2009; Ernst & Young Annual Globalization Index, 2009; DHL Global Connectedness Index, 2016; are some of them). Most of them cover both economic and non-economic dimensions of globalisation and come up with global and country specific numbers/scores and/or rankings. In this paper we have used the KOF Globalisation Index. This is available for 195 countries over the period 1970 to 2016, and covers economic, social, and political arenas of globalisation. We have used the Overall Globalisation Index (GI), the Economic Globalisation Index (EGI) and two of its sub-indices – Trade Globalisation Index (TGI) and Financial Globalisation Index (FGI).

It is observed that globalisation is progressing across the world over the last two-and-half decades, though at varying pace (Table 1). High Income countries, especially in North America and Europe are relatively more globalised compared to the Low & Middle income countries in South Asia and Sub-Saharan Africa. However, the pace of globalisation, as indicated by the increment in globalisation index has been highest for South and East Asia during the 1990-2015 period. Three other things emerge from the trends as evident from Tables 1 & 2. These are:

- a) The pace of globalisation has slackened since 2010;
- b) Economic Globalisation has occurred at a faster pace than political and social globalisation and so EGI is marginally higher than GI; and,
- c) Within the economic sphere, financial integration has surpassed trade globalisation as indicated by the increasing gap between FGI and TGI, especially since the turn of this century.

But there is no denying the fact that the world has become much more a global village over the last quarter of a century, especially in the economic sphere.

IV. TRENDS IN OUTPUT & INCOME

Global output has been growing at around 3-4 per cent per annum for most part of the last two decades (Table 3). The growth has been faster in the second half compared to the first, before slackening in the last three years. With consistently declining population growth rates, Per Capita Income has been steadily increasing and the rate of increase has itself increased over the years. However, most of economic growth has been contributed by Middle Income countries in Asia & Pacific which has experienced highest GDP and PCI growth rates during the last 25 years. North Africa also had an impressive GDP growth, but high population growth in this region negated much of this gain and so impact on PCI has been only marginal. The rise in PCI is definitely a welcome trend leading to higher personal income level in the developing world at the macro level in recent times. But one must examine whether such growth is percolating to the labour market as well leading to across the board improvement in living conditions of the masses. In absence of that, the fruits of economic growth will be shared by select few and inequality would increase.

V. LABOUR MARKET OUTCOMES

1. Work Participation, Employment, and Unemployment

Growth in Labourforce has lagged behind population growth rate in most cases – as a result of which LFPR has come down (Table 4 & 5). Exceptions are the Arab States, NSW Europe and Latin America where Labourforce has increase at a faster rate compared to population, leading to increase in LFPR in these countries.

While LFPR has declined, employment opportunities have decreased by a larger magnitude during 1990-2000 in almost the entire globe. In the new millennium, employment growth surpassed labourforce growth only in Central & West Asia, Africa, and Latin America. As a result, Worker Population ratio (WPR) has declined across the world over the last two decades.

As a flip side therefore, unemployment rate has increased during 1990-2000 in almost all regions except North America. During the next 15 years, Unemployment Rate increased in East Asia, North America, NSW Europe and South Asia. In the last three years, Unemployment Rate has crept up in Arab States, Central & West Asia, and Latin America too.

Looking at the absolute number of employed and unemployed persons, we find that growth in unemployed persons has been faster than growth in number of employeds for most of the world over the 1990-2000 period, indicating that not only have the absolute number of

unemployed persons increased, the rate of rise has been higher than that of employed persons in most cases. The only exception was North America. During the next decade however, growth in absolute number of unemployed surpassed that of employed in Asia & Pacific, but not elsewhere.

Thus, what is evident is that the phenomenal rise in GDP coupled with low population growth has resulted in rising PCI in major parts of the globe in recent times, and the rate of increase has itself increased over the last 25 years. But this striking economic boom (for which the pro-globalisation lobby claim the credit) has not been reflected in the labour market, especially in the low and middle income countries which now have Unemployment rates higher than what was in 1990, even though LFPR itself has declined. This is brought out more forcefully if we look at the elasticity of employment with respect to output over this period (Table 6). It is observed that the elasticity has not only remained low, it has decreased consistently throughout the 1990-2018 period in the entire globe except a brief period of 2010-15 in the Americas and during 2015-18 in NSW Europe.

VI. POSSIBLE EXPLANATION – CONVERGING TECHNOLOGY

It is thus amply clear that the labour market is getting decoupled from the economic growth and the whole idea that globalisation led economic boom will create huge labour demand in developing countries has proved to be elusive. Why has the story run contrary to expectations and forecasts so emphatically made during early 1990s? We argue that this has to do with not globalisation per se but the process and vehicle of globalisation. Contrary to popular belief and expectations, globalisation, especially economic globalisation has gained ground much faster and wider. The unbridled march of economic globalisation has been accompanied by three factors:

- (i) Globalisation of money and finance capital at an unprecedented scale;
- (ii) Emergence of cross-continent global value chain; and,
- (iii) Homogenisation of consumer tastes & preferences across countries at the upper decile levels of income.

Starting from the last one, consumers with high disposable income now desire and demand the same standard of commodities irrespective of whether they are residents of developed or developing countries. This is true for both consumer durables (notably electronics) and services (notably entertainment & leisure). Hence the latest mobile phones or washing machines or super bikes are as much in demand in say North America or West Europe as in

South or East Asia. Eating out and foreign travel is as much a common activity among rich Indians as among Europeans.

This, coupled with the global value chain has led to standardisation of both the technical specifications of commodities and their production processes across continents. Production is increasingly targeted at the global market and not just the domestic market of the country where the factory is. In fact, this was the guiding factor of the HO model based globalisation policy where production was to be geared towards the export market. And when corporates are vying for the same ‘top of the pyramid’ markets across the globe, they have to be fiercely competitive, always on the lookout for cutting costs and improving productivity.

These two phenomenon have been abetted by the first – excess supply of investible funds at the hands of corporates (mostly from the developed North) in search of newer areas of profit. Thus financial integration has surpassed trade globalisation and availability of global finance capital has led to adoption of ‘modern’ technology in manufacturing sector across the global South. Thus, instead of adopting labour intensive technology in labour surplus developing countries (a la HO theory and advocates of globalisation), we have increasingly witnessed capital intensive technology being put in place. This is borne out by the fact that Fixed Capital per worker has increased at 2 per cent per annum over the 1990-2018 period at the global level (Table 7). The rate of growth has been highest in the upper-middle income countries and lowest in the high income countries. Thus a convergence in Technology across countries has taken place (See Figure 1).

This excessive proliferation of ‘advanced’ capital intensive technology in quest of global competitiveness and standardisation of value chains and markets has resulted in two divergent trends in the labour market. While labour productivity (GDP per worker) has almost doubled between 1990-2018, labour’s share in GDP has dropped from 53 per cent of GDP in 1990 to 51 per cent in 2018 (Table 8). In Asia & Pacific – where the pace of globalisation and participation in global value chain has been tremendous – labour productivity has trebled, while labour share in GDP has dropped below 50 per cent.

This is mainly because of changes in the nature of employment during this period. With increasing globalisation and linking of production with global demand, uncertainties have become an omnipresent factor. Instabilities spread like wildfire across both sectors/markets and geographical location and the first casualty of any recessionary trend or cyclical slump, or bubble burst is the hapless working class. To keep the hiring and firing processes smooth and outside the purview of labour laws, there is an increasing trend to outsource work and create unorganised jobs in the organised sector. As a result, the share of wage worker has not

increased as much as expected – rising from 44 per cent in 1990 to just 52 per cent in 2018 (Table 9). In South Asia and Sub-Saharan Africa, they remain below 30 per cent even in 2018. Consequently not much dent could be made into the large mass of Vulnerable Workers (Own Account Workers and Family Labour) – workers without jobs that have regularity, stability or decent working conditions. What is more, large parts of the wage workers are casual workers – who are more akin to the vulnerable workers in view of their irregularity and instability of work and remuneration.

The pitiable condition of workers is also reflected in the proportion of working poor – workers who earn less than a decent wage. Almost one-fifth of workers worldwide earn less than 3.2 USD per day (constant 2011 PPP USD) in 2018 – the proportion being as high as 43 per cent in South Asia and 62 per cent in Sub-Saharan Africa (Table 10). Close to two-third of workers in Low income countries and two in every five workers in lower middle income countries earn less than decent wages.

It can therefore be inferred that the rapid globalisation over the last quarter century has been accompanied by adoption of labour saving technology across the globe, as a result of which expansion & improvement of employment has not been up to the expected level.

VII. ABORTED TRANSITION?

It is also sometimes argued that developing countries over the last few decades have exhibited a peculiar process of economic transition. Rather than the classic Lewis/Kuznets type of gradual movement from an economy dominated by subsistence primary sector to an industrial one followed by the mature phase of tertiary sector driven economy, these economies have moved from primary to tertiary straight away. While some economists have championed this as a Skipping Process of development, others are not easily convinced. More so, since the argument for globalisation projected that the opening up of the economy would lead to rapid industrialisation in developing countries – led mainly by expansion of manufacturing industries.

Experience however points to the contrary – share of industry in GDP has declined in almost all the regions of the world during 1990-2015 except a marginal rise in the Arab countries (Table 11). If we consider economic groups – share of industry in GDP has increased only in the Low income countries. Looked closer, both these increases have been fuelled not by a rise in manufacturing GDP but because of a rise in share of Construction, Mining & Utilities in GDP. This has been accompanied by a tremendous increase in the share of Services in GDP. While for the high income countries (mostly in Europe and North America), this is a

culmination of the economic transition process that they have been going through for most part of the last 50 years, for the developing world (Low and Lower middle income countries in rest of the world), this is a sure sign of Missing middle phase of economic transformation. As a result, most of the service sector activities in developing world are primitive services (retail trade, personal services, etc.) rather than post-industrialisation white collar service activities. Another marker of the aborted transition in these countries is that the increase in share of services in employment is far more than that in GDP – confirming that the services sector here are mostly low productive in nature (Table 12).

It would therefore not be wrong to infer that the last twenty-five years has seen unprecedented global economic integration, financial flow and changes in technology. However, this has not resulted in any significant expansion of employment and reduction of unemployment rate in the developing world and instead of industrialisation (as expected & forecasted) there has happened a shift towards low productive service sector in the developing world. We shall next try to examine the association between globalisation indices and other macro indicators using country level data.

VIII. LINKING GLOBALISATION & LABOUR MARKET PREDICAMENT

One may argue that such trends may have come about without any link with globalisation. To examine this issue we have used the KOF Index of Globalisation. As mentioned earlier, this Index measures three main dimensions of globalization – Economic, Social, and Political, as well as providing an Overall Globalisation Index. We have used the Overall Globalisation Index(GI), the Economic Globalisation Index (EGI) and two of its sub-indices – Trade Globalisation Index (TGI) and Financial Globalisation Index (FGI). The macro indicators chosen are GDP growth rate, PCI Growth Rate, and Employment Growth Rate.

It is observed that all the four globalisation indices are significantly negatively associated with employment growth rates all throughout (Table 13-15). The same is true for GDP growth rates, while the association with PCI Growth is mostly positive but insignificant. Similar type of association is observed between the employment variables and changes in globalisation indices, especially the negative relation between employment growth rate and pace of globalisation is noteworthy (Figure 2). It is thus evident that higher globalisation index is associated with poorer employment market conditions while at the same time not improving the PCI of the countries in any significant manner.

When we examine the association across economic groups, we observe that the magnitude of the negative relation between changes in globalisation index and employment growth rate is

stronger for middle income countries than the high income countries – indicating that the post-globalisation shock to labour market has been higher in developing countries rather than in developed countries.

IX. INDIAN SCENARIO

1. Trends

What has been the Indian scenario in this regard? It is observed that the situation and time trend in India has followed the same script as for the developing countries narrated above. The country and its economy has become more globalised, doubling the index values over the 25 year period studied here (Table 16). GDP has clocked an impressive growth rate of above 6 per cent per annum throughout this period, reaching up to 8.3 per cent during 2005-10 (Table 17). As a result, Per Capita Income has also shown a remarkable rise during the same period. However, as commented by economists, PCI is not the income of the average citizen, rather it is the average income of the citizen, and there is a significant difference between the two!

This economic boom has been accompanied by a steady fall in LFPR and WPR throughout, except a marginal blip during 2000-05. Absolute number of unemployed persons has grown at a rate higher than that of workers during this period. Vulnerable employment has remained above 75 per cent even after two decades of globalisation and economic flourish.

Sectoral composition of GDP does not show any remarkable improvement in the share of industrial sector, which has stagnated around the 28-30 per cent mark while the share of services has inched closer to the halfway mark. Within the industrial sector, the share of Manufacturing has remained around a pathetic 16-18 percent mark.

The process of rising GDP has depended mostly on induction of a more capital-intensive form of technology as Fixed Capital-Labour Ratio has more than trebled during this period. This has been mirrored by the movement of Labour Productivity (GDP per worker) which has also increased three-fold during 1990-2015. Elasticity of employment wrt GDP has come down from 0.5 during 1990-95 to 0.2 between 2010-15.

If we decompose growth in GDP into its components – growth of Capital Productivity, growth of Capital-labour ratio (or technology), and growth of employment, certain interesting features are revealed. It is observed that throughout the 1990-2015 period, contribution of Capital productivity to GDP growth has been negligible, even negative occasionally. Employment growth had contributed modestly to GDP growth during 1990-95 but this contribution came down steadily over the study period, coming down to 5.5 per cent during

2005-10 and ending with 16.2 per cent during 2010-15. The bulk of GDP growth has been brought about by rise in Capital labour ratio. Technology improvement had contributed close to 60 per cent of GDP growth during 1990-95, its share rising steadily to more than 80 per cent during 2010-15. Thus the economic boom that we have witnessed over the last 25 years has mostly been a Capital driven growth with little impact on the employment situation.

2. *Possible Dynamics*

But what has been the driving force behind such a rapidly changing technology in the economy? We have already hinted at some of the possible dynamics earlier. First, globalisation in India, and elsewhere, has been accompanied by macroeconomic structural adjustment. This has laid undue stress on fiscal consolidation and with revenues stagnating, government expenditure has been tightened, even curtailed in so called non-economic avenues like education, health, subsidies etc. As a result there is a general stress on domestic demand in these economies, notwithstanding the rising consumerism of the upper deciles of income classes. This has meant that producers who cater mainly to the domestic market have been reluctant to expand output and employment by any significant amount. Second, export oriented sectors are always on the move to maintain a toehold in the fiercely competitive and unstable international market. Therefore, they invest more in machines than men and tend to cut down on labour costs in the short run and relocating production to least cost countries in the long run. The only section that benefits in this melee is the specialised skilled workers. Improved technology is mostly skill-intensive and creates increasing demand for skilled labour in the developing countries, supply of which remains limited due to bottlenecks in the education sector. Consequently, compensations offered to employees other than workers are astronomical, though still lower in comparison to developed countries. This increases income inequality in these countries, as observed by Wood (1994, 1998) and Vivarelli (2004).

We can take a peek at this last issue if we examine the movements of factor prices in the organised manufacturing sector in India [similar exercises, though with a different focus, for earlier periods were done by Mathur & Mishra (2007) and Mukherjee & Majumder (2008)]. We have considered the following items from the Annual Survey of Industries: (a) Gross Value Added; (b) Fixed Capital; (c) Number of Workers; (d) Wages to Workers; (e) Number of Employees (excluding workers); (f) Compensation to Employees; (g) Total Persons Engaged; (h) Total Emoluments; (i) Outstanding Loan; (j) Interest Payments; (k) Invested capital; (l) Gross Profit;

Using these, we can construct indicators of factor returns as follows:

(1) Wage per Worker; (2) Compensation per Employee; (3) Emolument per Person; (4) Interest-Loan ratio; (5) Profit-Invested capital ratio. (1), (2), and (3) are returns to wage-workers, non-wage employees, and All Employees respectively. (4) is return to Borrowed Capital and can serve as an indicator of Returns to Capital. (5) may serve as an index of Return to Entrepreneurship.

Using values at constant 2011-12 prices, we have computed indexed values of these factor returns for the 1990-2018 period (Table 19). In addition we have also computed Labour Productivity Index (GVA per employee) and Technology Index (Fixed Capital-Worker ratio). The following salient features can be observed from Table 19. Labour Productivity has shown tremendous growth during the last 25 years as GVA/worker in 2018 has become three times of what it was in 1990. The same is true for Technology (or K/L ratio) which has also trebled during this period. This has been accompanied by a consistent increase in Emoluments per Person which has become two-and-half times during the same period. However, what this figure masks is the disproportionate increase in income of high-level manpower or non-wage workers relative to the wage workers. While wages per worker has increased only 75 per cent during last 28 years, compensation per employee (excluding workers) has become almost four times! This has widened the disparity between wage workers and managerial cadre employees (skilled manpower?) in the period of globalisation, a sentiment shared earlier by Mathur & Mishra (2007). It is also to be noted that the gap between Productivity and Wages have also widened during this period (Figure 3), which was earlier observed to have narrowed down during 1970s and 1980 by Mathur and Mishra (2007). Profits as a proportion to Invested Capital has also increased faster than wages per worker. Thus returns to workers have exhibited the lowest increase during the last three decades of economic growth.

However, what is of interest to us is the relative cost of labour and capital. We have chosen Interest on Outstanding Loan as an indicator of cost of capital. It is observed that cost of capital had increased marginally during 1990-2000, before falling substantially during the next decade. Only since 2010-11 cost of capital has increased again, but has still not reached the 1990 level. It is thus evident that Capital has seen a stagnant cost structure making Labour relatively dearer over the years. In fact, relative cost of labour (wages per worker is to interest/loan ratio) has become two and half times during the period of study. It is therefore quite natural that faced with rising labour cost and stagnant (and falling) capital cost entrepreneurs are substituting labour by capital. This in our opinion is the main reason behind

decoupling of employment from economic growth not only in India but across the globe in the period of rapid globalisation.

X. CONCLUDING COMMENTS

It is thus evident that the process of globalisation has led to changes in the production processes, structure, and technology across the world. In the true spirit of globalisation, these changes have been similar across the globe – bringing in more capital intensive technology. This is coupled with increasing putting out of work to the unorganised sector and casualisation of workforce. As a result, while national and per capita income levels have increased, these have not transformed to large scale industrialisation or expansion or regular employment. Wages have increased, but failed to keep pace with productivity increase. Within the employed class, skilled managerial employees have benefitted substantially more compared to workers and inequality in the labour market may have increased. Instead of boosting the employment market in developing countries as forecasted by the proponents of Washington Consensus, globalisation process is leading to further squeezing of the labour market. In addition, the cure-all medicines called globalisation and technological upgradation has been accompanied by several side-effects like removal of social safety nets, declining support to employment guarantee schemes, and dismantling of workers’ rights, adding to the woes of the working class. With falling income in the hands of the toiling class and increasing inequality, it is but quite natural that none of the ‘booster doses’ of fiscal incentives are able to revive the decelerating wheels of the economy. And instead of listening to the grassroot researchers, governments across the globe seem to be following a path which has been aptly summarised by Joseph Stiglitz in the following words:

“Globalization and trade liberalization were supposed to make us all better off through the mechanism of trickle-down economics. What we seemed to be seeing instead was trickle-up economics, accompanied by a destruction of democratic politics, as we moved ever closer to a system of “one dollar, one vote” as opposed to “one person, one vote.”

[Stiglitz, 2016]

It is time to pay heed to saner academic voices [for example Patnaik (2017) and Sen (2018)] and give a boost to domestic demand through larger government expenditure, rather than stick to a neo-liberal supply side fetish.

Notes

¹ The geo-economic groups are as per ILO specifications.

References

- Aitken, B. and A. Harrison (1999) – ‘Do Domestic Firms Benefit from Direct Foreign Investment? Evidence from Venezuela’, *American Economic Review*, Vol. 89.
- Basu, S. and D.N. Weil (1998) – ‘Appropriate Technology and Growth’, *Quarterly Journal of Economics*, Vol. 113, pp.1025-1054.
- Coe D.T., E. Helpman and A.W. Hoffmaister, (1997) – ‘North-South R&D Spillovers’, *Economic Journal*, Vol. 107, pp.134-149
- Dreher, Axel (2006) – ‘Does Globalization Affect Growth? Evidence from a new Index of Globalization’, *Applied Economics*, Vol. 38, No. 10, pp. 1091-1110.
- Dreher, Axel, Noel Gaston and Pim Martens (2008) – *Measuring Globalization – Gauging its Consequences*, Springer, New York.
- Friedman, Thomas (1999) *The Lexus and the Olive Tree*
- Gros, J.B. (2004) – ‘Labour Demand of Developing Countries in a Decade of Globalization: A Statistical Insight’, in Lee, E. and M. Vivarelli (eds.), *Understanding Globalization, Employment and Poverty Reduction*, Palgrave Macmillan, New York.
- Grossman, G.M. and E. Helpman (1991) - *Innovation and Growth in the Global Economy*, MIT Press, Cambridge (Mass.).
- Gygli, Savina, Florian Haelg, Niklas Potrafke and Jan-Egbert Sturm (2019): The KOF Globalisation Index – Revisited, *Review of International Organizations*, 14(3), 543-574
<https://doi.org/10.1007/s11558-019-09344-2>.
- Haddad, M. and A. Harrison (1993) – ‘Are there Positive Spillovers from Direct Foreign Investment’, *Journal of Development Economics*, Vol. 42, pp.51-74
- ILO (2004) – *A Fair Globalization: Creating Opportunities for All*, Report of the World Commission on the Social Dimension of Globalization, ILO, Geneva.
- Kathuria, V. (2001) – ‘Foreign Firms and Technology Transfer Knowledge Spillovers to Indian Manufacturing Firms: A Stochastic Frontier Analysis’, *Applied Economics*, Vol. 33
- Kelvin, William T. (1883) - Lecture on “Electrical Units of Measurement” (3 May 1883), *Popular Lectures*, Vol-I, p73,
<https://archive.org/stream/popularlecturesa01kelvuoft#page/73/mode/2up>
- Lall S. (2004) – ‘The Employment Impact of Globalization in Developing Countries’, in Lee, E. and M. Vivarelli (eds.), *Understanding Globalization, Employment and Poverty Reduction*, Palgrave Macmillan, New York, pp. 73-101.
- Lee, E and M. Vivarelli (2006) – ‘The Social Impact of Globalisation in the Developing Countries’, *IZA Discussion Paper Series*, DP NO. 1925, January, 2006.
- Lee, E and M. Vivarelli (eds.) (2004) - *Understanding Globalization, Employment and Poverty Reduction*, Palgrave Macmillan, New York.
- Mathur, Ashok and Sunil Mishra (2007) - Wages and Employment in the Indian Industrial Sector: Theory and Evidence, *Indian Journal of Labour Economics*, Vol. 50, No. 1, pp83-110
- Milanovic, B. (2003) – ‘The Two Faces Of Globalization: Against Globalization as We Know it, Development and Comp Systems, Economics Working Paper Archive at WUSTL No. 0303007.
- Mukherjee, D. and R. Majumder (2008) - “State Intervention and Labour Market in India: Issues and Options”, (jointly with Rajarshi Majumder), in *K.K. Bagchi (ed) State, Labour and Development: An Indian Perspective*, Serials Publications, New Delhi, 2008
- Ohlin, B. (1933) – *Interregional and International Trade*, Harvard University Press, Cambridge.
- Ohlin, B. and Eli Heckscher (1991) - *Heckscher-Ohlin Trade Theory*, The MIT Press, Cambridge.
- Patnaik, Pravat (2017) Economy Plunging Headlong into Recession, *Macroscan*, Aug 16th 2017, [http://www.macroscan.org/cur/aug17/pdf/Economy_Plunging.pdf accessed on 29-10-2019]
- Rodrik, D. (2000) – *Comments on ‘Trade, Growth and Poverty’ by D.Dollar and A.Kraay*, mimeo Harvard University, Cambridge (Mass.).
- Sen, Sunanda (2018) – Whither Indian Economy?, *Macroscan*, Sept 24th 2018, [http://www.macroscan.org/cur/sep18/pdf/Indian_Economy.pdf accessed on 29-10-2019]

- Stiglitz, E.J.(2002).Globalisation and its discontents. Great Britain: Penguin Press.
- Stiglitz. Joseph E. (2016) - How the Democrats Can Fix Themselves, *Vanity Fair*, Nov 17, 2016
[<https://www.vanityfair.com/news/2016/11/how-the-democrats-can-fix-themselves>
accessed on 12-10-2019]
- Stolper, W.F. and P.A. Samuelson (1941) – ‘Protection and Real Wages’, *Review of Economic Studies*, Vol. 9, pp.58-73.
- Vivarelli, M. (2004) – ‘Globalization, Skills and Within Country Income Inequality in Developing Countries’, in Lee, E. and M. Vivarelli (eds.), *Understanding Globalization, Employment and Poverty Reduction*, Palgrave Macmillan, New York, pp. 211-243.
- Wood, Adrian (1994) - *North-South Trade, Employment and Inequality. Changing Fortunes in a Skill-Driven World*, Clarendon Press, Oxford.
- Wood, Adrian (1998) – ‘Globalisation and the Rise in Labour Market Inequalities’, *The Economic Journal*, Vol. 108, No. 450
- World Bank (2002) - Globalization, Growth, and Poverty, *World Bank Policy Research Report No. 23591*, [available from <http://documents.worldbank.org/curated/en/954071468778196576/pdf/multi0page.pdf>]

Data Sources:

1. ILO Labour Market Statistics (ILOSTAT), accessed from <http://www.ilo.org> on 25/09/2019.
2. The KOF Index of Globalization, downloaded from <http://globalization.kof.ethz.ch/> on 05/10/2019.
3. Annual Survey of Industries, CSO, Government of India, Various Years
4. World Development Indicators, World Bank

Table 1
Trends in Globalisation Indices

<i>Country Groups</i>	Overall Globalisation Index				Economic Globalisation Index			
	1990	2000	2010	2015	1990	2000	2010	2015
World	45.4	50.4	56.7	58.2	48.6	55.8	59.5	60.8
East Asia & Pacific	44.4	50.7	56.0	58.0	53.3	60.6	62.4	63.9
Europe & Central Asia	58.2	60.8	68.5	69.7	48.4	62.1	69.6	71.4
Latin Am & Caribbean	45.3	49.4	54.1	54.7	50.4	54.1	55.9	57.2
Mid East & North Africa	48.9	51.6	59.9	59.7	54.8	57.3	63.1	61.5
North America	62.5	66.5	68.2	69.2	48.0	56.8	58.2	59.7
South Asia	33.7	38.7	44.9	47.3	35.0	38.2	39.0	38.3
Sub-Saharan Africa	35.4	39.2	45.5	48.2	44.3	49.6	51.4	53.6
Low income	30.4	33.6	41.7	43.9	36.7	41.6	45.0	46.9
Lower middle income	38.0	43.7	49.8	52.3	46.6	53.9	55.4	55.8
Upper middle income	44.8	49.5	56.7	58.2	48.9	54.6	58.0	59.2
High income	57.8	63.3	68.5	68.6	56.4	65.6	71.2	73.0

Source: Author's calculations based on Dreher (2006) and Gygli et al (2019).

Table 2
Trends in Components of Economic Globalisation Indices

<i>Country Groups</i>	Trade Globalisation Index				Financial Globalisation Index			
	1990	2000	2010	2015	1990	2000	2010	2015
World	47.8	53.7	55.8	56.4	49.7	57.6	63.1	65.0
East Asia & Pacific	52.9	59.2	56.9	57.6	50.6	58.6	67.3	69.8
Europe & Central Asia	45.0	60.2	62.7	65.0	53.9	64.4	76.4	77.4
Latin Am & Caribbean	49.5	49.0	50.7	51.1	52.5	59.9	61.6	63.6
Mid East & North Africa	53.2	55.8	62.9	60.3	56.2	58.6	63.2	62.6
North America	31.5	35.3	33.1	34.1	64.5	78.4	83.3	85.3
South Asia	40.0	43.7	41.5	39.5	29.9	32.7	36.5	37.1
Sub-Saharan Africa	44.9	48.4	51.9	52.5	43.6	50.7	50.8	54.7
Low income	37.1	41.3	47.8	47.0	36.5	42.1	42.3	46.8
Lower middle income	47.0	54.4	54.9	54.1	46.0	53.3	55.9	57.4
Upper middle income	51.0	55.0	55.4	55.9	46.5	53.7	60.2	61.9
High income	51.0	58.2	60.5	62.9	61.9	72.1	81.8	82.8

Source: Author's calculations based on Dreher (2006) and Gygli et al (2019).

Table 3
Global Growth Rates of GDP, Population and Per Capita Income 1990-2018 (% pa)

<i>Country Groups</i>	GDP			Population			Per Capita Income		
	1990-2000	2000 - 15	2015 - 18	1990-2000	2000 - 15	2015 - 18	1990-2000	2000 - 15	2015 - 18
WORLD	2.8	3.7	3.6	1.8	1.6	1.3	1.0	2.0	2.3
Africa	2.4	4.7	3.2	2.9	2.7	2.8	-0.5	1.9	0.4
Americas	3.2	2.2	1.8	1.8	1.6	1.3	1.4	0.6	0.5
Arab States	4.1	4.2	1.7	3.7	3.9	2.5	0.3	0.4	-0.9
Asia & Pacific	4.4	5.9	5.5	2.0	1.6	1.1	2.4	4.2	4.3
Europe & Central Asia	1.1	2.1	2.4	0.6	0.5	0.3	0.4	1.6	2.1
Central & W Asia	1.8	5.5	4.4	1.8	1.8	1.5	0.0	3.6	2.8
Eastern Asia	4.6	6.2	5.2	1.4	1.1	0.4	3.2	5.0	4.8
Eastern Europe	-2.0	3.5	2.2	0.4	-0.1	-0.4	-2.4	3.6	2.6
Latin Am & the Carib	2.9	2.9	0.9	2.3	1.9	1.5	0.5	1.0	-0.5
Northern Africa	2.9	3.7	3.9	2.9	2.2	1.8	0.0	1.5	2.1
Northern America	3.4	1.8	2.2	1.1	1.1	0.9	2.3	0.7	1.3
N, S & W Europe	2.0	1.2	2.1	0.5	0.5	0.3	1.5	0.7	1.8
SE Asia & Pacific	3.9	4.8	4.7	2.4	1.8	1.4	1.4	3.0	3.2
Southern Asia	4.3	6.1	6.8	2.6	2.2	1.8	1.7	3.9	5.0
Sub-Saharan Africa	2.0	5.4	2.6	2.9	2.9	3.1	-0.9	2.4	-0.4
High income	2.7	1.9	2.1	0.9	0.9	0.6	1.8	1.0	1.5
Low income	1.9	4.4	3.6	2.9	3.0	3.0	-1.0	1.4	0.6
Lower-middle income	3.3	6.1	5.7	2.5	2.1	1.8	0.8	3.9	3.8
Upper-middle income	2.9	5.8	4.5	1.7	1.3	0.8	1.2	4.5	3.7
BRICS	3.6	7.2	5.5	1.8	1.5	1.0	1.8	5.6	4.5
European Union 28	2.1	1.4	2.3	0.5	0.4	0.2	1.6	1.0	2.1

Source: Author's calculations based on ILO (2019) and World Bank (2019).

Table 4
Growth in Labourforce, Workers and Unemployed Persons - 1990-2018

<i>Country Groups</i>	Labourforce			Workers			Unemployed		
	1990-2000	2000-2015	2015-2018	1990-2000	2000-2015	2015-2018	1990-2000	2000-2015	2015-2018
WORLD	1.5	1.3	1.1	1.4	1.3	1.2	3.8	1.0	-0.6
Africa	2.6	2.6	2.8	2.5	2.8	2.9	3.6	1.0	2.4
Americas	1.9	1.5	1.2	1.8	1.5	1.1	2.7	0.5	3.4
Arab States	3.2	4.2	2.7	3.1	4.2	2.6	3.3	3.5	3.6
Asia & Pacific	1.6	1.1	0.8	1.5	1.0	0.9	4.6	1.8	-1.0
Europe & Central Asia	0.2	0.6	0.3	-0.1	0.7	0.8	3.6	-0.3	-6.5
Central & W Asia	1.0	2.0	1.9	0.4	2.1	1.8	8.6	0.7	2.6
Eastern Asia	1.0	0.5	0.0	0.9	0.4	0.0	4.9	2.2	-1.8
Eastern Europe	-0.3	-0.1	-0.6	-0.9	0.3	-0.1	6.3	-3.6	-8.4
Latin Am & the Carib	2.4	2.0	1.5	2.0	2.2	1.0	6.6	-0.2	8.2
Northern Africa	2.5	2.1	1.5	2.3	2.4	1.7	3.9	0.7	-0.1
Northern America	1.2	0.7	0.8	1.5	0.6	1.3	-3.9	2.3	-8.0
N, S & W Europe	0.3	0.6	0.3	0.3	0.5	1.1	0.8	1.5	-8.3
SE Asia & Pacific	2.2	1.7	1.1	2.1	1.7	1.1	6.1	-0.3	0.2
Southern Asia	2.2	1.7	1.8	2.1	1.7	1.9	3.3	2.3	-0.2
Sub-Saharan Africa	2.6	2.7	3.1	2.6	2.8	3.1	3.5	1.2	3.3
High income	0.8	0.8	0.7	0.8	0.9	1.2	0.9	0.7	-6.9
Low income	2.6	2.7	3.1	2.5	2.8	3.1	4.5	2.0	1.3
Lower-middle income	2.2	1.7	1.7	2.0	1.8	1.8	5.1	1.2	0.3
Upper-middle income	1.2	0.9	0.4	1.1	0.9	0.3	4.8	0.8	1.7
BRICS	1.4	0.9	0.5	1.2	0.8	0.5	4.8	1.4	1.2
European Union 28	0.2	0.5	0.2	0.1	0.5	1.1	1.0	0.6	-9.9

Source: Author's calculations based on ILO (2019) and World Bank (2019).

Table 5
Labour-force Participation, Employment and Unemployment Rates 1990-2018 (%)

<i>Country Groups</i>	LFPR			Worker-Population Ratio			UNEMP Rate		
	1990	2000	2018	1990	2000	2018	1990	2000	2018
WORLD	65.6	64.7	61.7	62.7	61.1	58.5	4.4	5.5	5.2
Africa	64.5	64.3	63.3	59.4	58.7	58.9	7.9	8.8	6.9
Americas	62.9	64.4	63.4	58.8	59.8	59.5	6.6	7.1	6.2
Arab States	49.7	48.8	51.0	45.8	44.9	47.4	7.7	7.8	7.1
Asia & Pacific	68.6	67.2	62.1	66.9	64.9	59.8	2.5	3.4	3.8
Europe & Central Asia	59.7	57.5	58.3	55.5	51.8	53.3	7.0	9.8	8.5
Central & W Asia	60.2	56.5	58.2	57.3	51.0	53.5	4.7	9.7	8.0
Eastern Asia	76.6	75.0	68.8	74.8	72.4	65.7	2.4	3.5	4.5
Eastern Europe	63.7	59.2	59.2	59.7	52.5	55.3	5.9	11.3	6.6
Latin Am & the Carib	60.9	63.1	64.1	57.5	57.3	59.8	6.1	9.2	6.6
Northern Africa	47.4	47.2	46.8	41.1	39.9	41.0	13.5	15.4	12.4
Northern America	65.6	66.3	62.4	60.5	63.5	59.0	7.2	4.3	5.5
N, S & W Europe	56.8	56.6	57.7	52.1	51.6	51.9	8.4	8.8	10.0
SE Asia & Pacific	68.1	69.1	67.9	66.6	66.3	65.9	2.8	4.0	3.0
Southern Asia	57.8	56.8	52.9	56.1	55.1	51.2	2.7	3.0	3.3
Sub-Saharan Africa	69.7	69.6	67.9	65.0	64.4	63.9	6.8	7.4	5.9
High income	60.6	60.6	60.3	56.6	56.5	56.3	6.7	6.8	6.7
Low income	74.3	73.8	71.3	71.6	70.6	68.5	3.6	4.3	3.9
Lower-middle income	60.0	59.6	56.7	58.0	56.9	54.3	3.4	4.5	4.2
Upper-middle income	71.8	69.9	65.5	68.7	65.8	61.7	4.1	5.8	5.8
BRICS	70.0	68.0	62.0	67.8	65.1	59.2	3.1	4.3	4.6
European Union 28	57.6	56.5	57.4	52.8	51.3	52.0	8.6	9.3	9.4

Source: Author's calculations based on ILO (2019) and World Bank (2019).

Notes: LFPR – Labour Force Participation Rate as % of 15+ age group Population;
EMPR – Employment Rate as % of 15+ age group Population; UNEMR –
Unemployment Rate as % of Labourforce.

Table 6
Elasticity of Employment wrt GDP - 1990-2018

<i>Country Groups</i>	1990-95	1995-2000	2000-05	2005-10	2010-15	2015-18	1990-2000	2000-2015
WORLD	0.6	0.4	0.4	0.3	0.3	0.3	0.5	0.4
Africa	2.1	0.7	0.5	0.5	0.8	0.9	1.0	0.6
Americas	0.6	0.5	0.7	0.7	0.7	0.6	0.6	0.7
Arab States	0.8	0.7	0.9	1.3	0.8	1.6	0.8	1.0
Asia & Pacific	0.3	0.4	0.2	0.1	0.2	0.2	0.3	0.2
Europe & Central Asia	1.1	0.2	0.3	0.4	0.3	0.4	-0.1	0.3
Central & W Asia	-0.8	0.1	0.3	0.5	0.4	0.4	0.2	0.4
Eastern Asia	0.2	0.2	0.1	0.1	0.1	0.0	0.2	0.1
Eastern Europe	0.2	-0.3	0.1	0.1	0.0	0.0	0.5	0.1
Latin Am & the Carib	0.8	0.7	1.0	0.6	0.7	1.0	0.7	0.8
Northern Africa	1.2	0.6	0.7	0.6	0.5	0.4	0.8	0.6
Northern America	0.5	0.4	0.2	-0.3	0.6	0.6	0.4	0.3
N, S & W Europe	-0.5	0.4	0.5	0.5	0.2	0.6	0.2	0.4
SE Asia & Pacific	0.4	0.8	0.3	0.5	0.3	0.2	0.5	0.4
Southern Asia	0.5	0.5	0.4	0.1	0.3	0.3	0.5	0.3
Sub-Saharan Africa	3.4	0.8	0.5	0.5	0.7	1.2	1.3	0.5
High income	0.2	0.4	0.4	0.5	0.5	0.5	0.3	0.5
Low income	3.7	0.8	0.6	0.5	1.0	0.9	1.3	0.6
Lower-middle income	0.7	0.6	0.4	0.2	0.3	0.3	0.6	0.3
Upper-middle income	0.6	0.3	0.2	0.1	0.1	0.1	0.4	0.2
BRICS	0.6	0.3	0.2	0.1	0.1	0.1	0.3	0.1
European Union 28	-0.5	0.3	0.4	0.5	0.2	0.5	0.1	0.4

Source: Author's calculations based on ILO (2019) and World Bank (2019).

Table 7
Technology – Gross Capital-Worker Ratio 1990-2018

<i>Country Groups</i>	K/W Ratio[@]	Growth in Gross Capital per Worker (% pa)			
	2018	1990-2000	2000-2010	2010-2018	1990-2018
WORLD	100	1.7	2.0	1.8	2.0
Africa	29	-0.8	0.6	1.2	0.3
Americas	155	0.9	0.9	0.4	0.7
Arab States	211	-0.6	1.4	1.7	0.9
Asia & Pacific	77	4.1	4.5	3.9	4.5
Europe & Central Asia	212	2.2	1.1	0.5	1.3
Central & W Asia	105	3.2	1.9	2.2	2.6
Eastern Asia	106	4.8	5.6	4.8	5.4
Eastern Europe	134	2.0	0.6	0.8	1.2
Latin Am & the Carib	89	0.6	0.3	1.1	0.7
Northern Africa	74	0.0	1.0	1.8	1.0
Northern America	265	1.4	1.9	0.1	1.2
N, S & W Europe	297	1.7	1.3	0.4	1.2
SE Asia & Pacific	77	4.2	1.9	2.5	3.1
Southern Asia	41	2.3	4.7	3.0	3.6
Sub-Saharan Africa	22	-1.3	0.1	1.2	0.0
High income	268	2.0	1.5	0.4	1.4
Low income	10	-0.3	1.8	3.2	1.7
Lower-middle income	43	2.2	3.2	2.8	2.9
Upper-middle income	96	2.3	4.1	4.1	3.7
BRICS	75	2.6	5.5	4.7	4.6
European Union 28	275	2.2	1.5	0.5	1.5

Source: Author's calculations based on World Bank (2019).

Notes: @ - Indexed Gross Capital Worker ratio, World = 100

Table 8
Growth in Labour Productivity and Labour Share in GDP - 1990-2018

<i>Country Groups</i>	GDP per Worker Index[@]				Labour Share in GDP			
	2005	2010	2015	2018	2005	2010	2015	2018
WORLD	128	145	162	174	53.0	52.2	51.8	51.4
Africa	112	126	131	132	46.4	45.7	47.9	47.4
Americas	119	122	126	129	57.0	56.0	56.6	56.1
Arab States	112	106	109	106	28.4	28.5	30.9	32.2
Asia & Pacific	163	215	268	307	50.1	49.1	49.3	49.0
Europe & Central Asia	125	131	139	145	56.2	57.0	54.8	54.6
Central & W Asia	138	155	185	200	40.4	41.0	40.6	39.9
Eastern Asia	184	254	330	384	51.9	50.1	52.2	52.0
Eastern Europe	115	133	145	155	48.9	52.1	49.2	50.1
Latin Am & the Carib	108	116	120	120	48.3	49.0	51.1	50.5
Northern Africa	114	124	129	138	40.5	38.8	40.3	39.7
Northern America	132	139	145	149	60.7	59.4	59.3	58.8
N, S & W Europe	123	126	131	134	60.3	61.1	59.5	59.0
SE Asia & Pacific	141	160	186	207	45.0	44.6	43.3	42.6
Southern Asia	144	193	234	270	49.9	50.2	46.5	46.1
Sub-Saharan Africa	111	127	137	135	50.9	50.7	52.7	52.4
High income	130	134	140	144	-	-	-	-
Low income	103	119	120	121	-	-	-	-
Lower-middle income	136	173	211	237	-	-	-	-
Upper-middle income	152	201	247	279	-	-	-	-
BRICS	167	242	315	365	52.2	51.8	52.0	51.6
European Union 28	129	132	138	143	59.2	59.8	57.8	57.6

Source: Author's calculations based on ILO (2019) and World Bank (2019).

Note: @ GDP per worker in 1990 = 100

Table 9
Nature of Employment (% of total employment)

<i>Country Groups</i>	1990			2018		
	Employer	Wage Worker	Vulnerable Worker	Employer	Wage Worker	Vulnerable Worker
WORLD	2.8	44.0	53.2	3.0	52.0	45.0
Africa	3.3	24.7	72.1	3.2	28.6	68.2
Americas	4.5	72.6	23.0	3.7	74.4	21.9
Arab States	4.4	70.8	24.8	3.5	81.2	15.4
Asia & Pacific	2.2	30.7	67.1	2.6	44.9	52.6
Europe & Central Asia	3.2	80.9	16.0	3.4	82.3	14.4
Central & W Asia	3.4	51.3	45.3	3.7	64.2	32.1
Eastern Asia	2.5	36.4	61.2	2.9	56.6	40.5
Eastern Europe	1.2	89.2	9.6	1.9	88.1	10.0
Latin Am & the Carib	5.0	58.1	36.9	4.3	63.1	32.6
Northern Africa	9.0	54.8	36.2	7.0	63.9	29.2
Northern America	3.9	90.4	5.7	2.7	92.8	4.5
N, S & W Europe	4.7	82.0	13.3	4.3	84.8	11.0
SE Asia & Pacific	2.4	33.5	64.1	3.2	51.6	45.2
Southern Asia	1.8	18.9	79.3	1.9	26.5	71.6
Sub-Saharan Africa	2.1	18.9	79.0	2.5	22.6	74.8
High income	4.1	82.6	13.3	3.3	87.2	9.5
Low income	1.4	15.5	83.2	1.6	18.8	79.5
Lower-middle income	2.3	25.4	72.2	2.7	34.5	62.9
Upper-middle income	2.7	42.7	54.6	3.3	59.2	37.5
BRICS	2.3	32.6	65.2	2.6	45.5	51.9
European Union 28	4.4	81.3	14.3	4.1	84.5	11.4

Source: Author's calculations based on ILO (2019).

Table 10
Working Poor: 1990-2018

<i>Country Group</i>	<i>% Workers earning less than 3.2 USD PPP per day</i>				
	1990	2000	2010	2015	2018
WORLD	53.9	47.8	31.6	22.7	21.0
Africa	68.4	67.3	60.6	56.4	54.9
Americas	13.2	11.2	6.1	4.5	4.2
Arab States	16.9	8.9	7.8	13.5	15.9
Asia & Pacific	73.8	62.6	38.5	24.2	21.3
Europe & Central Asia	5.9	6.4	2.8	2.4	2.2
Central & W Asia	27.3	30.6	17.6	13.9	12.5
Eastern Asia	74.1	57.8	25.1	7.5	6.0
Eastern Europe	5.5	5.9	0.1	0.1	0.1
Latin Am & the Carib	23.8	19.8	9.9	7.2	6.8
Northern Africa	31.3	23.2	16.9	11.4	10.6
Northern America	0.0	0.0	0.0	0.0	0.0
N, S & W Europe	0.5	0.1	0.0	0.0	0.0
SE Asia & Pacific	64.5	56.7	30.4	21.8	17.1
Southern Asia	77.9	73.4	61.7	48.1	43.0
Sub-Saharan Africa	75.6	75.7	69.2	64.4	62.4
High income	0.4	0.4	0.1	0.1	0.1
Low income	81.4	80.6	71.8	67.8	65.7
Lower-middle income	72.7	69.0	53.7	42.3	37.8
Upper-middle income	62.4	48.1	19.7	6.3	5.2
BRICS	75.4	63.2	38.1	22.0	19.6
European Union 28	0.0	0.0	0.0	0.0	0.0

Source: Author's calculations based on ILO (2019).

Table 11
Sectoral shares of GDP 1995-2018

<i>Country Groups</i>	<i>Share of Industry (%)</i>				<i>Share of Services (%)</i>			
	1995	2005	2015	2018	1995	2005	2015	2018
World	31.9	28.6	25.6	25.5	61.6	61.4	64.9	65.0
North America	23.6	22.0	19.1	18.2	71.0	72.9	75.9	77.4
Europe & Central Asia	27.6	24.9	23.1	23.3	59.5	62.3	64.5	64.3
European Union	26.6	23.7	22.0	21.9	60.9	64.3	66.0	66.0
Cen Europe & Baltics	32.0	29.6	29.4	28.5	49.8	54.6	55.7	56.8
Arab World	41.3	51.9	41.0	45.0	44.8	39.7	52.5	48.7
Middle East & N Africa	40.0	49.1	38.5	39.2	47.7	44.1	54.7	54.0
Sub-Saharan Africa	29.8	28.8	24.4	24.1	44.5	48.0	53.1	52.4
South Asia	27.4	28.7	26.4	26.2	39.1	45.7	48.9	49.9
East Asia & Pacific	38.7	37.0	33.9	33.9	55.4	55.4	59.4	59.8
Latin Am & Caribb	28.2	30.1	24.6	24.2	56.8	54.4	60.2	60.3
High income	26.8	25.0	22.9	22.8	67.3	67.3	69.6	69.8
Low income	18.0	26.2	22.5	24.9	37.3	41.1	41.9	39.3
Lower middle income	31.2	32.4	29.0	28.9	40.7	45.2	48.9	49.0
Upper middle income	37.6	38.6	33.1	33.3	47.6	47.6	54.8	55.3

Source: Author's calculations based on World Bank (2019).

Table 12
Sectoral shares of Employment 1995-2018

<i>Country Groups</i>	<i>Share of Industry (%)</i>				<i>Share of Services (%)</i>			
	1995	2005	2015	2018	1995	2005	2015	2018
World	21.8	21.6	23.2	22.9	36.8	41.3	47.6	48.8
North America	24.8	22.3	19.9	19.4	72.4	76.2	78.7	79.1
Europe & Central Asia	29.9	27.2	24.8	24.6	54.2	61.1	65.8	66.6
European Union	31.1	27.6	24.1	23.9	59.7	66.3	71.4	72.0
Cen Europe & Baltics	33.5	31.9	30.8	31.6	44.1	52.1	57.8	58.4
Arab World	21.8	21.8	24.1	24.3	46.3	50.9	54.4	54.3
Middle East & N Africa	25.0	24.5	26.5	26.7	48.5	52.2	56.2	56.4
Sub-Saharan Africa	9.9	9.9	11.0	11.3	27.4	28.9	33.8	34.1
South Asia	15.4	18.4	23.5	23.8	23.8	27.0	31.4	32.7
East Asia & Pacific	23.7	23.9	26.5	26.2	29.1	35.2	45.2	47.4
Latin Am & Caribb	21.8	21.5	21.6	21.0	55.9	59.2	64.2	65.0
High income	29.1	25.4	22.9	22.5	65.1	70.7	73.9	74.5
Low income	8.6	9.3	11.0	11.4	19.4	21.2	25.6	25.8
Lower middle income	15.9	17.9	21.6	21.9	28.9	31.7	36.9	38.2
Upper middle income	24.8	25.0	27.1	26.6	32.5	39.4	49.8	51.7

Source: Author's calculations based on World Bank (2019).

Table 13
Association between Globalisation Index & Employment Indicators

<i>Indicator</i>	<i>GDP growth</i>	<i>PCI growth</i>	<i>Employment growth</i>
Economic Globalisation 1990	0.120	0.202*	-0.170*
Economic Globalisation 2000	-0.080	0.045	-0.214**
Economic Globalisation 2010	-0.167*	0.007	-0.213**
Trade Globalisation 1990	0.103	0.186*	-0.180*
Trade Globalisation 2000	0.053	0.157*	-0.187*
Trade Globalisation 2010	-0.149*	0.024	-0.198**
Financial Globalisation 1990	0.122	0.187*	-0.126
Financial Globalisation 2000	-0.194**	-0.073	-0.204**
Financial Globalisation 2010	-0.162*	-0.004	-0.202**
Overall Globalisation 1990	0.063	0.183*	-0.304**
Overall Globalisation 2000	-0.254**	-0.045	-0.378**
Overall Globalisation 2010	-0.237**	-0.009	-0.352**
Change in Economic Glob Index 1990-2015	-0.109	0.343**	-0.372**
Change in Trade Glob Index 1990-2015	-0.157*	0.331**	-0.430**
Change in Financial Glob Index 1990-2015	-0.168*	0.284**	-0.425**
Change in Overall Glob Index 1990-2015	-0.136	0.326**	-0.396**

Source: Author's calculations based on sources cited above.

Table 14
Association between Employment Growth & Globalisation Indices – by Country Groups

	Overall Globalisation Index			Economic Globalisation Index			Trade Globalisation Index			Financial Globalisation Index		
	1990	2000	2010	1990	2000	2010	1990	2000	2010	1990	2000	2010
Arab States	-0.301	0.377	0.218	-0.383	0.482	0.003	-0.340	0.471	-0.173	-0.367	0.381	0.136
Cent & W Asia	0.952	-0.454	-0.352	0.861	-0.445	-0.701*	0.639	-0.181	-0.638*	0.125	-0.613*	-0.646*
Eastern Asia	-0.718	-0.731	-0.527	-0.327	0.037	0.483	0.066	0.359	0.305	-0.631	-0.248	0.611
Eastern Europe	-0.290	-0.042	0.270	-0.178	0.237	0.548	-0.222	0.377	0.417	-0.131	0.050	0.542
Latin Am & Carib	-0.189	-0.202	-0.142	-0.078	-0.185	-0.131	-0.154	-0.310	0.117	0.028	-0.020	-0.330
Northern Africa	-0.398	-0.244	-0.961**	-0.076	-0.473	-0.828*	-0.131	-0.197	-0.953**	0.002	-0.606	-0.072
Northern America	na	na	na	na	na	na	na	na	na	na	na	na
NSW Europe	0.355	0.443*	0.006	0.329	0.446*	0.438*	0.353	0.418*	0.500**	0.262	0.411*	0.295
SE Asia & Pacific	0.181	0.122	0.250	0.264	0.274	0.403	0.003	0.086	0.264	0.390	0.368	0.449
Southern Asia	-0.161	-0.642	-0.661	0.115	0.067	0.130	0.029	0.339	0.318	0.194	-0.182	-0.027
Sub-Saharan Africa	0.203	-0.380*	0.031	0.022	-0.089	0.170	0.118	-0.010	0.147	-0.059	-0.147	0.166
Low Income	0.117	-0.306	0.009	0.050	0.075	0.107	0.177	0.125	0.178	-0.075	0.030	0.033
Lower-middle Income	0.344*	-0.404**	-0.195	0.212	-0.395**	0.032	0.095	-0.372*	-0.122	0.251	-0.278	0.207
Upper-middle Income	-0.140	-0.351*	-0.247	0.214	-0.088	-0.023	0.054	-0.171	-0.050	0.292	0.014	0.024
High Income	-0.255	-0.451**	-0.443**	-0.098	-0.088	-0.196	-0.069	0.047	-0.085	-0.103	-0.203	-0.286*

Source: Author's calculations based on ILO (2008) and World Bank (2008).

Note: Employment growth for subsequent 5-year period

Table 15
Association between Change in Globalisation Indices and Macro-variables

<i>Indicators</i>	<i>Country groups by income</i>	<i>Changes over 1990-2015 in</i>			
		<i>Overall Globalisation Index</i>	<i>Economic Globalisation Index</i>	<i>Trade Globalisation Index</i>	<i>Financial Globalisation Index</i>
GDP growth 1990-2015	High income	-0.028	-0.076	-0.094	-0.055
	Low income	0.244	0.033	-0.023	0.077
	Lower-middle income	-0.440**	-0.412**	-0.532**	-0.250
	Upper-middle income	-0.108	-0.109	-0.057	-0.160
PCI growth 1990-2015	High income	0.299*	0.378**	0.368**	0.361**
	Low income	0.140	0.035	0.004	0.057
	Lower-middle income	0.377**	0.334*	0.206	0.420**
	Upper-middle income	0.364**	0.366**	0.332*	0.317*
Employment growth 1990-2015	High income	-0.199	-0.300*	-0.315*	-0.266*
	Low income	0.246	-0.076	-0.145	0.010
	Lower-middle income	-0.678**	-0.606**	-0.587**	-0.557**
	Upper-middle income	-0.508**	-0.487**	-0.489**	-0.449**

INDIAN CONTEXT

Table 16
Trends in Basic Indicators for India

<i>Indicator</i>	1990	1995	2000	2005	2010	2015
Overall Globalisation Index	38.2	46.1	57.0	58.6	41.2	51.7
Economic Globalisation Index	17.3	26.8	38.4	38.4	21.7	34.8
Trade Globalisation Index	20.3	28.3	39.4	37.8	22.5	39.6
Financial Globalisation Index	14.3	25.2	37.3	39.1	20.9	30.0
Per Capita Income [@]	2857	3214	3823	4729	6373	8069
LFPR (%)	58.6	58.5	57.5	58.5	54.1	52.2
WPR (%)	57.4	56.9	55.9	56.7	52.4	50.4
Unempt Rate (%)	2.1	2.6	2.7	3.1	3.1	3.4
Vulnerable Employment [^]	83.7	83.1	83.7	83	82.1	78.0
Gross Capital-Worker Ratio ^a	15490	17791	21424	25986	38599	50585
GDP per Worker Index [#]	4877	5645	6836	8343	12078	15898
Labour Share in GDP	na	na	na	58.0	56.8	49.2
Manufacturing share in GDP	16.6	17.9	15.9	16.0	17.0	15.6
Industry share in GDP	27.4	28.5	27.3	29.5	30.7	27.3
Services share in GDP	35.9	37.7	42.5	44.4	45.0	47.8
Working Poor ^b	45.6	43.7	40.4	35.1	28.0	16.4

Notes: @ - at 2011 constant international PPP \$; # - indexed with 1990 = 100; ^ - Own account workers and Casual wage workers; a - indexed with 1990 = 100; b - Workers earning less than 1.9 USD per day

Table 17
Growth of Basic Indicators for India

<i>Indicators</i>	<i>Annual average growth rate (% pa)</i>				
	<i>1990-95</i>	<i>1995-2000</i>	<i>2000-05</i>	<i>2005-10</i>	<i>2010-15</i>
GDP	4.9	6.1	6.7	8.3	6.8
Population	2.4	2.5	2.3	2.0	1.9
Per Capita Income	2.4	3.5	4.3	6.1	4.8
Labourforce	2.4	2.1	2.6	0.5	1.2
Workers	2.3	2.0	2.5	0.5	1.1
Unemployed	6.7	3.0	5.3	0.4	3.1
Capital per Worker	2.8	3.8	3.9	8.2	5.6
Elasticity of Empl wrt GDP	0.5	0.3	0.4	0.1	0.2

Table 18
Decomposing GDP growth in India

<i>Components</i>	<i>1990-95</i>	<i>1995-2000</i>	<i>2000-05</i>	<i>2005-10</i>	<i>2010-15</i>
GDP growth	4.9	6.1	6.7	8.3	6.8
<i>In which contribution of</i>					
Capital Productivity	-5.2	1.8	1.8	-4.6	1.2
Capital-labour ratio	57.8	62.3	58.6	99.0	81.7
Workers	46.4	34.4	38.0	5.5	16.2

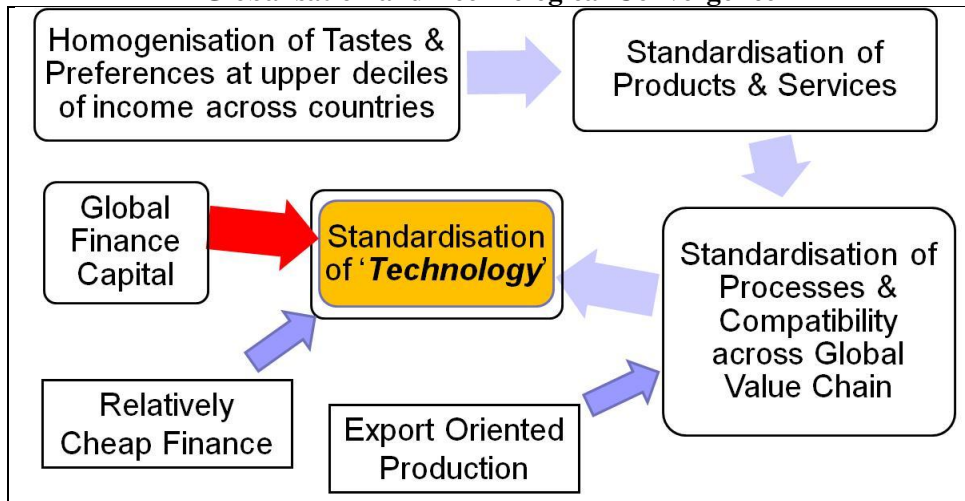
Table 19
Movements of Factor Returns in Registered Factories (Indexed Values base 1980-81 = 100)

<i>Year</i>	<i>GVA per Worker</i>	<i>Emolument per Person</i>	<i>Wage per Worker</i>	<i>Compensation per Employee</i>	<i>Profit per unit Invested Capital</i>	<i>Interest / Loan</i>	<i>Relative Labour Cost</i>	<i>K/L Index</i>
1990-91	100	100	100	100	100	100	100	100
1995-96	134	110	109	111	154	102	109	134
2000-01	150	127	108	162	106	114	112	154
2005-06	215	131	101	192	349	66	196	162
2010-11	245	163	117	254	278	75	218	217
2015-16	285	227	161	350	228	98	233	287
2018-19	295	250	176	397	224	99	254	298

Note: All Values at constant 2011-12 prices. Relative labour Cost is calculated as ratio between Total Emolument per Person Engaged and Interest per unit of Outstanding Loan; Capital-Labour Ratio is measured as Fixed Capital per Employee.

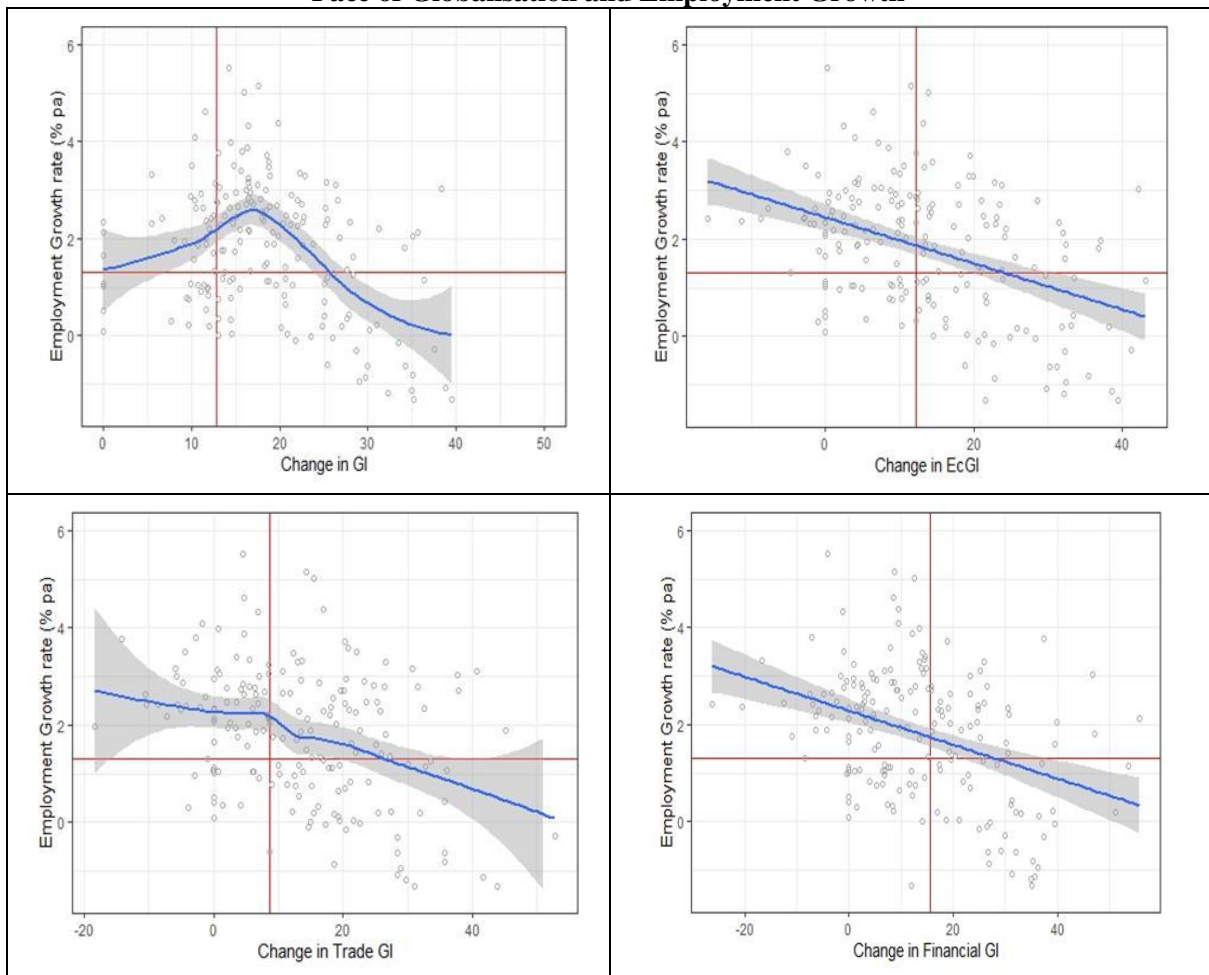
Source: Annual Survey of Industries, CSO, Govt. of India (Various Years)

Figure 1
Globalisation and Technological Convergence



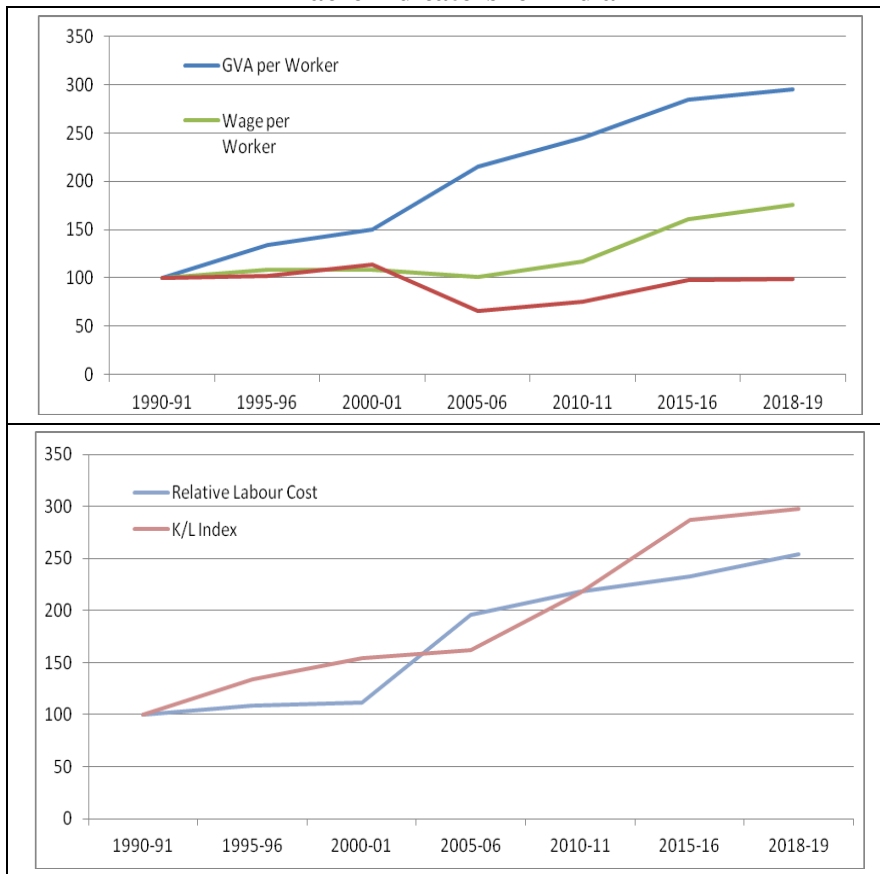
Source: Author's creation

Figure 2
Pace of Globalisation and Employment Growth



Source: Author's creation based on dataset mentioned

Figure 3
Macro indicators for India



Source: Author's creation based on dataset mentioned