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2020

ANNUAL JOURNAL

DEPARTMENT OF ECONOMICS

LADY SHRI RAM COLLEGE FOR WOMEN

NEW DELHI

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Note from the Faculty

The Academic Journal Ecolloquial 2020 seeks to provide a platform for students to delve into important economic issues. The aim is to encourage them to read, analyze and present a clear perspective. Many thanks to Dr. Jayan Jose Thomas for his insightful views on the current economic scenario and ways to get past the murkiness. We are also grateful to Ms. Jayashree Sahoo, Teacher-in-Charge, Department of Economics, for sharing her views on India's road to recovery as the country fights the novel coronavirus. Apart from the interviews, the editorial team has incorporated book reviews and a new section titled 'Schools of Thought'. We thank the team and everyone else involved for their dedication and hard work.

Ms. Neha Grover
Ms. Vaishali Verma

Note from the Editorial Board

Following from the footsteps of the journal published by the department every year, we take immense pride in taking it forward to even greater heights. With great honour, humility and pleasure the Editorial Board presents to you Ecolloquial 2020, the Annual Journal of Department of Economics. From the growth trajectory of the Indian Economy to the intersection of economics and social issues, this year's journal aims to cover a number of issues relevant to today's day and age.

This year we are proud to announce that we introduced a new section, 'Schools of Thought' with the vision of providing a space where students could express their opinions, policy suggestions and analyse a wide range of topics from the multidimensional lens of social sciences. We hope that it would serve as an enriching and an insightful addition to Ecolloquial 2020.

The Editorial Board is delighted that it received an overwhelming response of submissions from the student body across India. We hope that the journal serves as a motivation for promoting informed research at the undergraduate level. Ecolloquial 2020, is a result of months of hard work on the part of the authors and the editorial board. We are proud to present this year's journal and hope that the reader enjoys and gains from it as much as we did.

The Editorial Board 2019 - 2020

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RESEARCH PAPERS

THE INDIAN ECONOMY: FROM THE CURRENT SLOWDOWN TO A MORE RESILIENT ECONOMY

Dr. Saroj Gupta Memorial Paper Presentation is a flagship event of Econvista, the annual academic festival of Department of Economics, LSR. The competition hosts young minds from across the country and gives them the opportunity to present their research work and policy suggestions to an esteemed panel comprising of scholars from multiple disciplines. The topic for Econvista 2019-20 was "From the current economic slowdown towards a more resilient, inclusive and sustainable growth for India". Here's the winning paper:

Nidhi Srinath
Nikita Sachanandini
S. Sriram
Christ University, Bangalore

ABSTRACT

India, which was once the fastest growing economy in the world, is currently experiencing a major economic slowdown. India's growth model since the early 1980s has been an example for most developing countries with increasing incomes, an expanding urban middle class and falling unemployment. However, the sustainability of this model has been put to test in recent years. The GDP growth rate recorded for the last quarter of FY19 went as low as 5.8% and the situation is only worsening. One of the biggest contributors to this crisis is the fall in consumption, specifically rural consumption which has spilt over in the other sectors of the economy. This paper looks into the cyclical and structural reasons behind the slowdown and adopts a rural-led approach to alter the mindset of people through increased incomes and better access to credit.

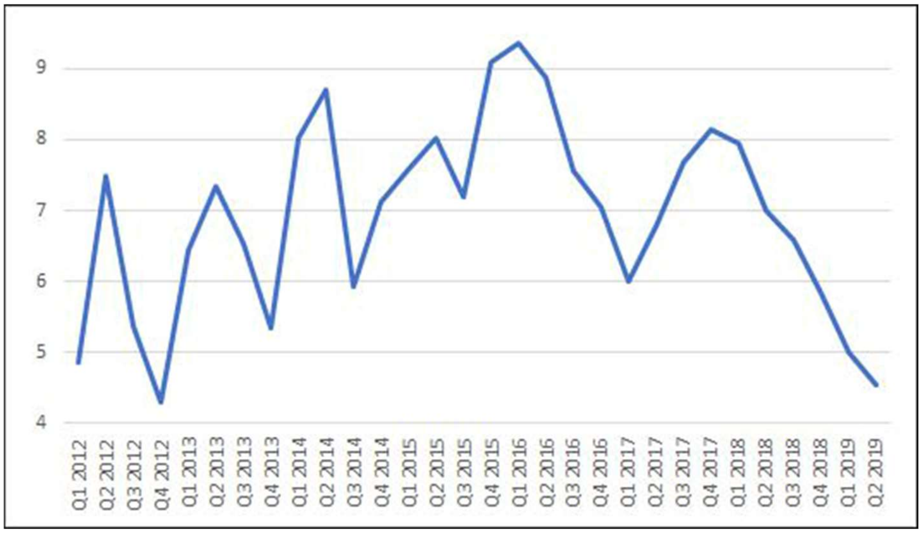
Keywords: Rural consumption, investment, narrative economics, behavioural finance, consumer confidence

CHARACTERISING THE SLOWDOWN

India's economy has been hit. Poised to grow at well above 6% per annum, the numbers today look dismal. Although already well established, at the outset, we begin by defining the current state of the economy. Quarterly data shows that the GDP growth rate has been falling successively for 6 quarters since the beginning of 2018. From a high of 8.13% in Q4 2017, the growth rate has come down a meagre 4.55% in Q2 2019 (Figure 1). Although the situation is nowhere as severe as a 'recession' that have branded it to be (for that would require 2 successive quarters of a fall in GDP), the current situation is worrisome. For the sake of definitional clarity, throughout the paper, we shall refer to the situation as a slowdown (since what we are witnessing is a fall in the *rate of growth* of GDP only).

But before proceeding any further, it is important to see why specifically growth is important for India. We believe the answer is demographics. India is fast losing its demographic dividend i.e. the rate of people entering the labour force will soon be less than the rate of population growth. Given this, there is a pressing need to generate jobs for the approximately 10 lakh people entering the workforce every month. Poised to cross China's population by 2027 and become the most populous country on the globe, the economy needs to provide for its burgeoning middle class and empower its largely young and unskilled labour force lest they turn into a demographic burden. In other words, the economy must grow fast before it grows old.

Figure 1: GDP Quarterly Growth Rate (%) 2012-19; (base year 2011-12)



Source: Central Statistics Office (CSO) data

UNDERSTANDING THE NATURE OF THE SLOWDOWN

Historical Drivers of Growth

In order to establish the nature of the current economic slowdown and understand the variables affected, it is imperative to see the historic trends in those variables and their relevance to economic growth over the years. The economy, during 2003-08 was driven by increasing fixed investment (as seen by a 12.6% growth between 2003-08). This, in turn, fuelled domestic consumption and exports. Between 2009-11, growth was sustained by a fiscal stimulus by the government, post the exhaustion of which growth slowed. After 2014, India's growth has largely been fueled by rising total consumption expenditure (as seen by a 7.8% growth between 2014-19). During the same period, investment as a proportion of GDP reduced considerably, from 37.9% in 2011-14 to 31.7% in 2014-19 (Table 1). Specifically, investment in industries (measured as the ratio of gross capital formation and capital stock) has fallen from a high of 20.49% in 2007-08 to 9.69% in 2018-19 (Figure 2) Given this context, two major questions arise:

1. Can the current slowdown be attributed to a fall in consumption, and consequently other demand-side factors? Or can it be traced to supply-side reasons?
2. Can the slowdown be seen as a periodical fluctuation in the business cycle i.e. a cyclical slowdown or are there underlying structural reasons behind it?

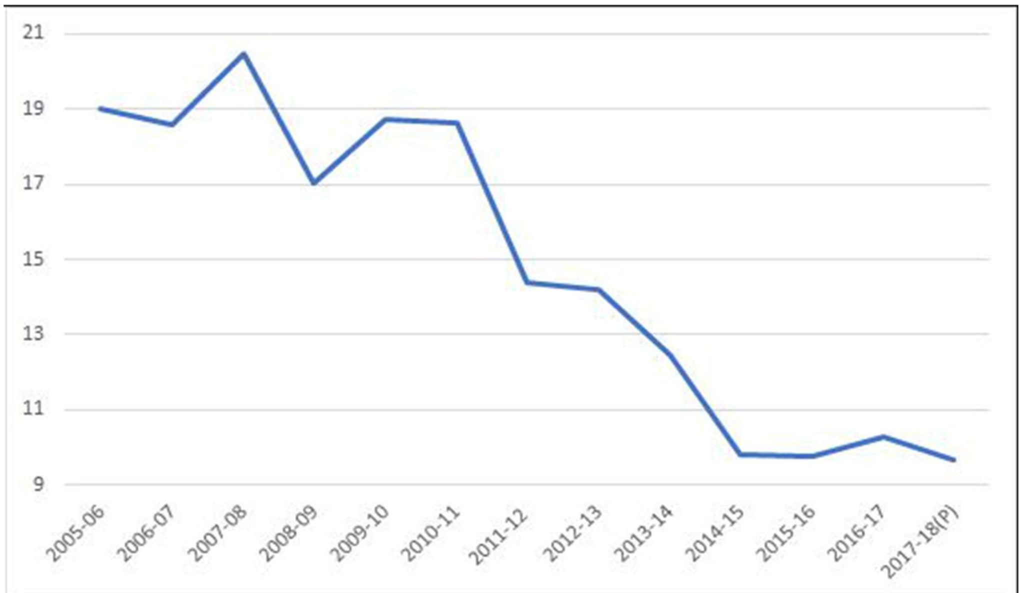
The next two sections aim at answering these questions.

Table 1: Underlying Drivers of GDP Growth by Components (2003-19)

Components	Growth (%)					Contribution to Growth (%)				
	2003-08	2008-09	2009-11	2011-14	2014-19	2003-08	2008-09	2009-11	2011-14	2014-19
I. Total Consumption Expenditure	**6.1**	**5.5**	**6.5**	**6.1**	**7.8**	**53.7**	**118.2**	**53.5**	**71.5**	**69.8**
Private	6.2	4.5	5.9	6.7	7.6	46.3	81.9	40.4	66.2	57.5
Government	5.8	11.4	9.7	2.6	9	7.4	36.3	13.1	5.3	12.3
II. Gross Capital Formation (of which)	**15.3**	**-2.6**	**14.5**	**2**	**7.1**	**58.5**	**-31.4**	**64.1**	**16.6**	**32.9**
Fixed Investment	12.6	3.2	9.4	6.2	7.4	43.1	32.6	35.9	37.9	31.7
III. Net Exports						**-7.7**	**-72.4**	**-4.1**	**8.9**	**-10.5**
Exports	17.8	14.8	7.3	10	3.7	-	-	-	-	-
Imports	20	22.4	6.9	6.1	6.5	-	-	-	-	-

Source: RBI Annual Report, 2018-19

Figure 2: Yearly Rate of Investment in Industries (ROI) (%), 2005-17



Source: Author's calculations using Annual Survey of Industries data, 2017-18
Note: ROI is calculated as a ratio of gross capital formation and invested capital.

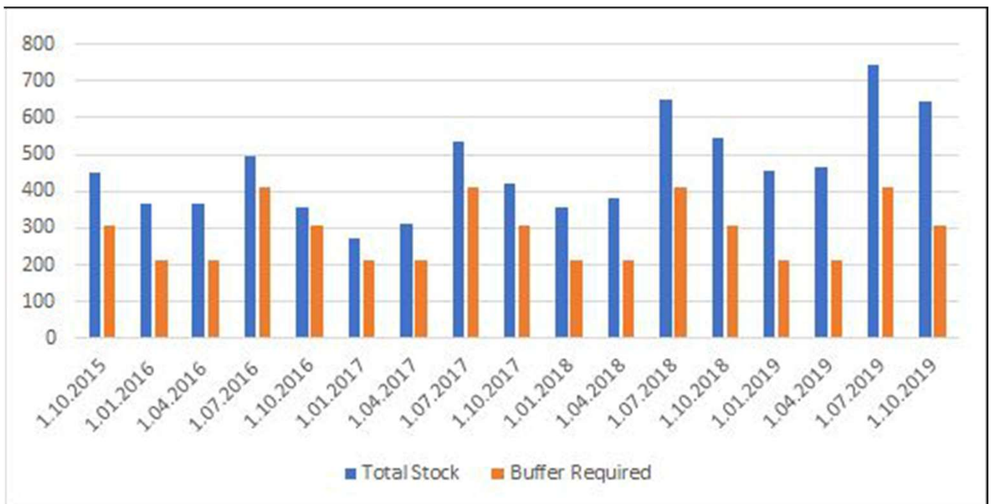
Examining Demand-side and Supply-side Effects

The rate of growth of an economy can fall due to either demand-side reasons (lower demand for goods) or supply-side reasons (constraints on production). According to the demand-side approach, national income can be decomposed into private consumption, government spending, investments and net exports. Hence, an increase in either of these factors will lead to higher growth. On the other hand, the supply-side approach emphasises on increasing the supply of goods which, in turn, translates into higher economic growth through a cycle of more jobs and higher demand for the goods produced. This section aims at ascertaining whether thhe current slowdown is driven predominantly by demand or supply.

According to Anand & Azad (2018), in addition to a fall in demand, there are two other constraints, from the supply-side, for a developing economy which can hinder its growth rate: agricultural and financial constraints. Agriculture acts as a constraint on the industry in two ways. Firstly, due to its production linkages with industry, it supplies raw materials for the production process. Secondly, it provides for wage-goods which play a role in determining the wages of workers in the industry. Financial/ credit constraints may be imposed upon the industry if the financial institutions are unwilling to lend money for production purposes. Both these constraints ultimately lead to a fall in industrial production.

The agricultural constraint manifests itself in the form of lower foodgrain production leading to higher cost of raw materials and higher wage-goods. However, in the current scenario, the buffer stock of rice and wheat with the Food Corporation of India (FCI) has gone up significantly. As of 1st October 2019, the buffer required as per mandate was 307.7 lakh tonnes, whereas the actual stock stood at 642.32 lakh tonnes, indicating a surplus of 334.62 lakh tonnes (Figure 3). This clearly rules out the possibility of there being a supply-side problem with regard to agriculture.

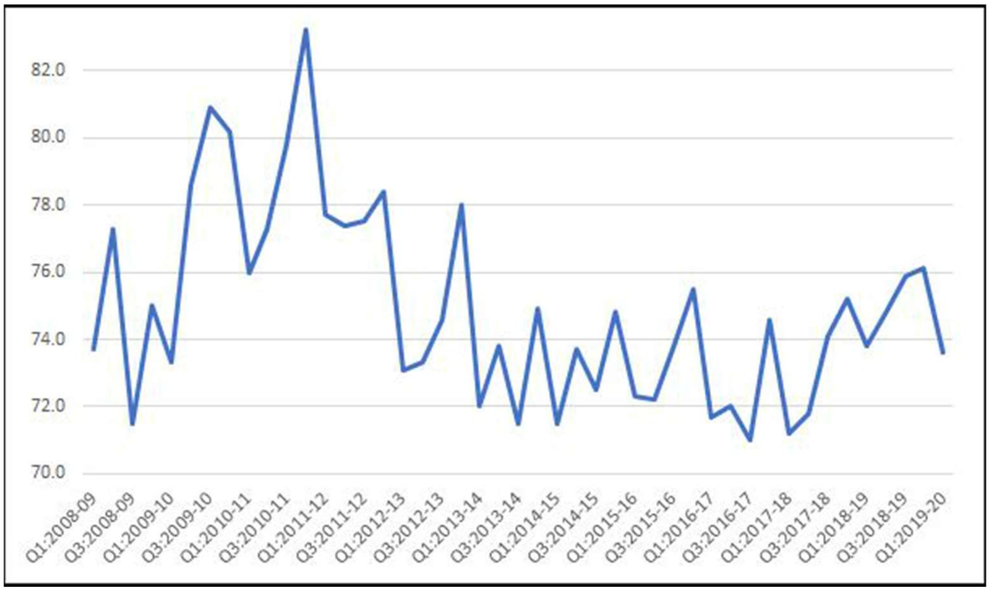
Figure 3: Buffer Stock (Rice and Wheat) with FCI; Quarterly (2016-19)



Source: Food Grain Bulletin, December 2019, Dept of Food and Public Distribution

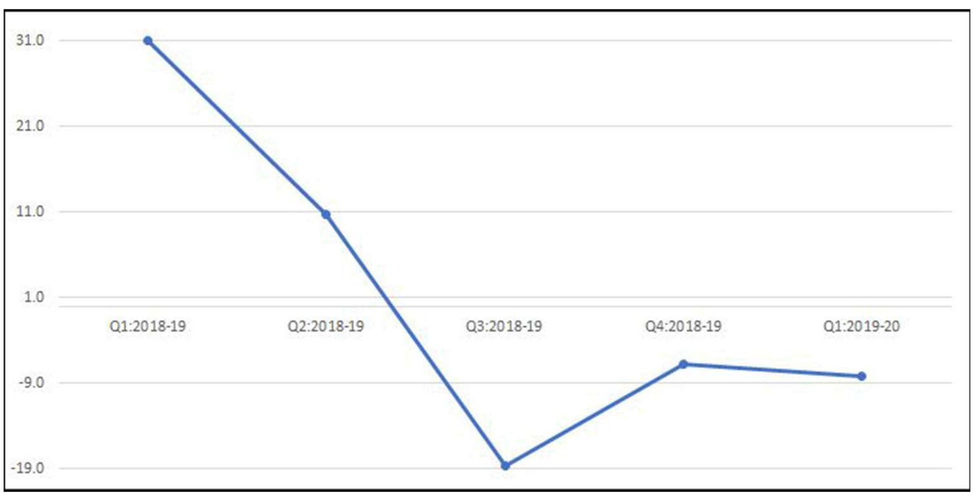
Next, we look at the production process. As seen earlier, industrial activity in the economy (As measured by the IIP) is down. If this slowdown was caused by supply-side factors, then industries would be operating at the highest capacity possible. On the other hand, if the problem was demand-driven, industries would not be utilizing their full capacity owing to low demand for products. In other words, industrialists would not be using all their capital stock for production when there is no demand corresponding to that level of production. This scenario appears highly likely in the Indian context, as witnessed by a 73.6% utilization of capacity by industries in the last quarter of 2019-20 and a falling trend since 2018 (Figure 4). Further evidence for a fall in demand comes from the fact that fewer new orders were received in the first quarter of 2019-20, marking 3 consecutive quarters of fall in orders (Figure 5).

Figure 4: Capacity Utilization of Industries % (Quarterly; 2008-19)



Source: RBI Annual Report, 2018-19

Figure 5: Average New Order Growth (Quarter-on-Quarter %) 2018-19



Source: RBI Annual Report, 2018-19

Notwithstanding, an explanation for low industrial activity could be traced to a fall in bank lending to industry (a supply-side constraint). To analyse this possibility, we examine the final constraint to the production process i.e. credit. Banks can either lend directly to the industry or lend to NBFCs who in turn significantly lend to the industry. Bank lending to the industry has slowed down as evidenced by a negative 3.95% growth in lending between March and September 2019. This can mean two things: either banks are reluctant to lend money to the industry or there is low demand from the industry for loans. Although it is difficult to accurately pinpoint which of these two reasons is responsible, Anand & Azad point (2018) point out that when read along with low capacity utilization, this indicates a demand-side slowdown. In other words, industrialists are not demanding loans as their production is low anyway due to low product demand.

Table 2: Bank Lending to Industry (March 2017- Sept 2019)

Bank Lending to Industry (Mar-17 - Sep-19)					Bank Lending to Industry (Growth Rate %)			
Year	Micro & Small	Medium	Large	Total	Micro & Small	Medium	Large	Total
Mar-17	3,697	1,048	22,053	26,798	-	-	-	-
Mar-18	4,182	1,260	22,625	31,295	13.12	20.23	2.59	16.78
Mar-19	4,384	1,238	26,242	33,049	4.83	-1.75	15.99	5.60
Sep-19	4,339	1,182	25,305	31,742	-1.03	-4.52	-3.57	-3.95

Source: Database on the Indian Economy, Reserve Bank of India

The indirect source of bank lending to the industry i.e. via NBFCs has also been falling as shown by a Rs. 6,000 crore fall in bank credit between April and June 2019. Unlike direct industry lending, categorizing this trend as demand-driven would be misleading. This is because, in the case of NBFCs, it is banks' reluctance to lend that caused the slowdown. After the collapse of IL&FS, banks became vary of lending to NBFCs as a whole and only recently, after multiple reassurances from the RBI has bank lending to NBFCs increased. Bank lending to NBFCs increased by around 43% in between September 2018-19.

Perhaps the most conclusive evidence of the slowdown not being supply-side comes from the inflation numbers. Mean Headline Inflation (considered to be the most volatile inflation measures) was 3.4% in 2018-19, well below the Reserve Bank's upper bound of 6%. Seen this way, the slowdown can be explained as a case of falling demand. However, recent trends complicate this matter.

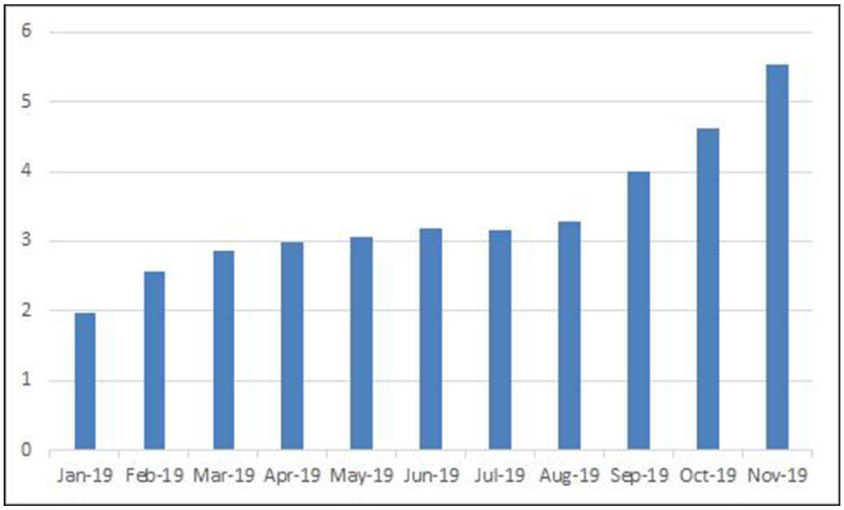
Table 3: Headline Inflation (%, 2012-18), Mean and Standard Deviation

Statistics	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Mean	10	9.4	5.8	4.9	4.5	3.6	3.4
Standard Deviation	0.5	1.3	1.5	0.7	1	1.2	1.1

Source: RBI Annual Report, 2018-19

Retail inflation, contrary to the observed trend, rose to 5.54% in November 2019 on account of a steady rise in food prices. So how does one interpret this data? Firstly, seen alongside a contracting IIP (with a negative growth of 3.8% in October 2019), this points to a classic case of stagflation i.e. falling output growth combined with high prices. The question then becomes whether the stagflation can be attributed to a rising demand or supply-side constraints. If it was a rise in demand fuelled by rising incomes, wholesale inflation should have shown a rising trend along with retail inflation. That however has not been the case with WPI recording only 0.16% rise in October 2019. A case against a demand revival can be made by the fact that in WPI, the prices of manufactured items are not rising, indicating that manufacturers are not getting a high price for their products. So while food inflation has been higher than CPI growth recently, this has to be a case of supply constraints and as a matter of fact, the economy still remains low on demand. The impact of aggregate demand shocks like demonetization will be examined in further sections.

Figure 6: Retail Inflation (%) (January 2019- November 2019)



Source: Ministry of Statistics and Programme Implementation data

The analysis of the supply-side constraints indicates that the economy currently has a stock of piling foodgrains, underutilized capacity in the industry, low headline inflation (before October 2019) and banks with high liquidity not transmitting the same further. Except for bank lending to NBFCs, all the other factors indicate a demand-side problem in the economy. The next section seeks to analyse the nature of this demand-side slowdown.

Examining Cyclical and Structural Effects

Having examined the demand-side factors responsible for this slowdown, we now look at whether the current slowdown is cyclical or structural. A cyclical problem would imply a fall in economic activity over the short to medium run, and growth is generally expected to pick up after a fiscal stimulus. If it is a structural problem, on the other hand, the underlying reasons are more deep-rooted. The reason this distinction is important is because it has a direct bearing on the choice of policies to alleviate the slowdown.

Nageswaran and Natarajan (2016) note that India has never been able to sustain high economic growth for more than 3 consecutive years since 1991. India's growth numbers started exceeding 8% beginning in 2014 and by the end of 2017, the numbers began declining (for 6 successive quarters). This might point out to the business cycle tendencies in the economy and add weight to the cyclicalists' claim. Furthermore, policy shocks such as demonetization and GST may have further dampened economic activity in the short-run. This, in turn, may have affected aggregate demand. However, if that was the case, the economy should have responded to fiscal and monetary policy measures. The RBI has cut repo rates by 135 basis points since the beginning of 2019, but the monetary transmission mechanism is broken.

This indicates that although demand has fallen recently, the underlying reasons for it are not just cyclical. Swamy (2019) points out that the key components of demand have been weakening for over a decade and the economy currently is exhausting its last driver of growth i.e. consumption.

Some other cyclical claims attribute the slowdown to the slowing global trends and hint particularly at exports i.e. because of a fall in global demand, Indian exports have been hit. While it is true that India's exports have stagnated, this slowdown can be attributed to the inelastic supply of exports i.e. the prices of Indian exports are not falling in order to be competitive in the world market. Further evidence against this cyclical claim can be found by looking at the exports of Cambodia (which grew by 14.1% between 2011-2019) and Vietnam (which grew by 17.5% between 1998-2019). The impact of exports will be examined in detail later in the paper, but it is clear that exports do not offer a cyclical explanation for the slowdown.

Now we look at the structural claim. The problem with the structuralist claim is that none of the factors which claim to be structurally holding the economy back are recent (For example, land and labour laws). So even if the claim was true, it still does not explain how those structural factors suddenly caused growth to fall i.e. it does not tell us the trigger for the slowdown. In the next section, we look at the possible triggers for the slowdown and explain why we believe the slowdown to be cyclical-structural.

Triggers for a Structural-Cyclical Slowdown

As mentioned earlier, the economy post-2008 was largely growing due to fiscal stimulus and after that ran out, it started losing steam around 2011. Recognizing that, the share of Government Final Consumption Expenditure increased from 2.6% for 2011-14 to 9% for 2014-19. So, when government consumption reduces, as has been the case recently with the government's policy of maintaining fiscal discipline, growth driven by high government expenditure would fall. But it is safe to say that the impact of reducing the fiscal deficit would not be felt so immediately on the economy. So, the question is, why did growth not pick up even when there was high government expenditure? One possible explanation for this is that the money spent by the government was not going into the right sectors. As noted earlier the Food Corporation of India (FCI) has an excess stock of grains than required. It could be argued that a large proportion of the money spent by the government was for purchasing these grains and since they are rotting away, the money is not generating economic growth.

A more plausible explanation for the current slowdown, however, can be found in the credit crunch that the economy is facing post the IL&FS crisis. With banks growing risk averse to NBFCs as a whole, they experienced a liquidity crunch which meant fewer auto loans and home loans (NBFCs service to the housing and auto sector predominantly). This meant lesser vehicles being purchased in both urban and rural areas, fewer construction projects being completed and new investment projects significantly dropping. In short, the NBFC liquidity crisis affected two key variables: consumption and investment. The next few sections analyse their role.

EXAMINING THE ROLE OF PRIVATE FINAL CONSUMPTION EXPENDITURE

Theoretical Evidence

Consumption is one of the major factors that spur economic growth and has started seeing some major downtrends lately. Consumption spending leads to a greater aggregate demand, which results in higher output and lowers unemployment. A fall in consumption expenditure on the other hand will lead to lower prices, which would in turn lead to higher costs and the layoffs would naturally follow. This, in turn, would cause a fall in wages and job security and the economy would have reached a point of the recession, with consumers not only incurring lesser expenditure but even having fewer plans of future consumption until their confidence in the economy is restored. Even those who do not lose their jobs live in the fear of losing their jobs and would postpone or cancel their consumption expenditures.

Such is the case of the Indian Economy today and is especially evident in the rural sector. Private consumption accounts for around 60% of the GDP and is at an all-time low for the first time in more than four decades. In order to study the underlying causes of the fall in consumption, we examine household behaviour in recent years, income crunch and the impact of income inequality and policy shocks.

Household Behaviour

Prior to 2019, household consumption remained steady although there was a marked change in the saving behaviour of households. Household savings as a percentage of GDP fell from 23.6% in 2012-13 to 17.2% in 2018-19. This can be attributed to the fact that in recent years, consumption has largely been funded by borrowings. This is evidenced by a rise in household borrowings from 3.7 lakh crore in 2012-13 to 6.74 lakh crore in 2018-19, most of it largely due to increases in housing loans, personal loans and credit card loans from banks. A large chunk of retail debt was also provided by Non-Banking Financial Corporations (NBFCs) particularly for auto loans (which account for). When households borrow, they tend to consume that money rather than save. This may explain why consumption has remained steady while savings have fallen. In recent times, the uncertainty associated with incomes due to structural reasons has meant that a lot of the retail loans have come under stress. The problem with retail loans also magnified with the collapse of the IL&FS, imposing a liquidity crunch for NBFCs. This meant that lending from both banks and NBFCs dried up for households.

Policy Shocks

While it is established that savings are falling, an often-overlooked trend is the changing composition of household savings in response to policy shocks. Loosely speaking, households can either save money by depositing it in banks or holding it in cash. What is interesting to note is that savings in currency have increased from 11.4% in 2011-12 to 25.2% in 2017-18, while bank savings have fallen from 57.9% to 28.6% in the same period. If one observes the trend, demonetization can be singled out as having a major impact on this behaviour. There was a steep rise in bank savings post demonetization but after the improvement in liquidity conditions, households saved most of their money in cash and reduced their bank savings by around 40%. Recent RBI data shows that the income velocity of narrow money (cash + bank deposits) has reduced, indicating that people are rebuilding their cash stockpiles. This behaviour can play a major role in the slowdown and the kind of policies needed to remedy the situation. Any policy aimed at giving more money in the hands of people must take into account the money multiplier effect. If households choose to save the money as cash instead of depositing them in banks, the money does not circulate in the economy and does not lead to economic activity. This, in turn, will lead to a widening of the output gap, i.e. a sizeable difference between the potential of the economy to produce and the actual level of production.

Changing the composition of savings was one way demonetization impacted the economy. The other more obvious one was by dampening demand by removing liquidity from the economy. When all money in circulation in the economy is removed, it leads to a large ripple effect for demand through the money multiplier effect (examined above). While it has been pointed out that the economy revived post demonetization, we believe that the fall in demand must be taken into consideration with another policy shock i.e. the Goods and Services Tax (GST). While GST sought to stop tax evasions which are commonplace in cash transactions without a formal invoice, in doing so it raised prices immediately. So, while earlier the equilibrium market price for a commodity was lower than the actual price by the amount of sales tax the consumer was supposed to pay, GST raised the equilibrium price by that amount. With the effective prices of goods rising, there was no corresponding rise in demand, which further contributed to the slowdown. Together, the impact of these twin policy shocks (one from the demand side and the other from the supply-side) can explain the consumption slowdown and change in household behaviour in the past couple of years.

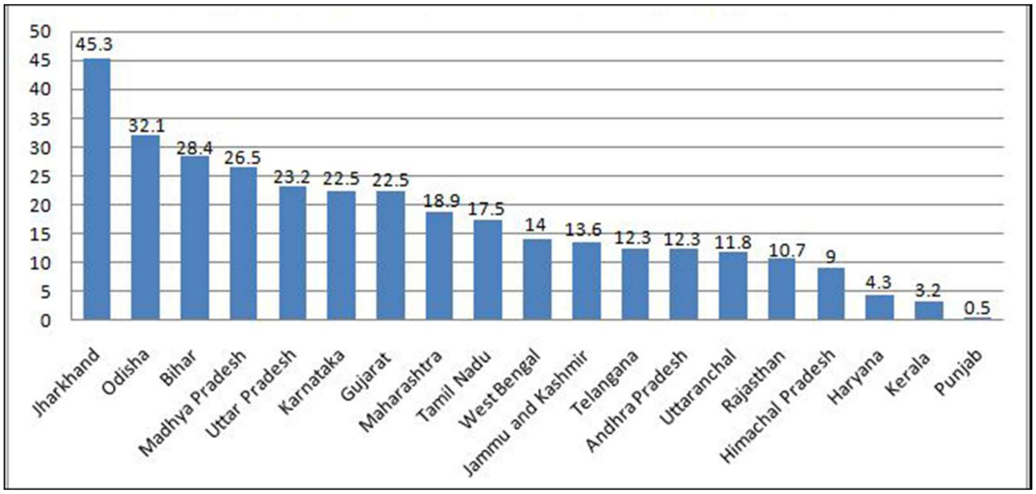
Income Crunch and Wage Suppression in Rural Sector

The fall in demand from the rural sector has become one of the biggest reasons for worry in this current economic slowdown. The reason for such a major dip in consumption is quite evident. Consumers will be able to spend only if they possess disposable income, but consumers in the rural sector are even cutting down their expenditures on even the most essential items such as oil and food and are switching over to lower-priced variants of products. The agricultural sector which employs 42% of the Indian population, is expected to grow at 2.8%, according to the National Statistical Office. A point to note here, is that the agricultural industry grew at 2.9% last year, which implies that the agricultural sector saw no profits this year.

Income in the rural districts has been squeezed as a result of a variety of factors, including structural ones revolving around the agricultural crisis which has been going on since 2014. The situation has worsened now with falling wages becoming more and more apparent. Therefore, rural occupants face a loss of purchasing power and find themselves unable to demand at the level they used to before.

One of the most imperative factors to be highlighted is the paltry returns received by farmers on their products. Profits on account of their produce seem like a long shot but recovering the cost of their investment also seems equally far fetched. The focus of the government on raising agricultural output and improving food security, through means such as better technology, public investments in and for agriculture etc, has been quite successful, although the income accruing to farmers has not seen an accompanying rise. In India, 22.5% of the total farm households lived below the poverty line in 2011-12 according to a survey undertaken by the NSSO with Jharkhand accounting for 45.3% of the total.

Figure 7: Farm Households below the Poverty Line (%), 2011-12



Source: Consumption Expenditure Survey, NSSO

In the period of 1995-2004, growth in agricultural output slowed down by a considerable amount, which coincided with a sharp increase in farmer suicides. Major reasons for the suicides included shocks in farm income and low farm incomes (Chand and Parappurathu 2012).There was a period of high growth in rural wages from 2007-08 to 2012-13 which can be attributed to major crucial factors such as the impressive progress ofthe Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), policy intervention by the government such as the rise in expenditure, and the growth of the construction sector. This high growth rate in rural wages, however, was short-lived. Post-2012-13, agricultural production was affected by deficient rainfall, especially in the years 2014-15 and 2015-16. Monsoon began to recover by 2016-17 which provided some boost to the agricultural economy, but just in this period, the economy was hit by demonetization and subsequently the GST.

The sector which was heavily affected by demonetization was the retail sector since it relied on high volume cash transactions. Nominal rural agricultural wages, on the other hand, remained resilient after demonetization, recording an increase in growth rate of 7.3% in November 2016, (the month demonetization was announced) from 6.9% in October as a result of the announcement of hike in minimum wages. The psychological effect of demonetization, however, persisted by dampening consumer sentiment in the rural economy which is reflected by the fact that two-wheeler sales declined by 5.9% year-on-year in November and by 22% in December.

One might consider the Minimum Support Price (MSP) as a way to ensure good returns to the farmers. It is a scheme which ensures that the returns received on farm products do not fall a certain level. Although MSP is announced for all crops at the time for sowing, procurement takes place to a large extent only in rice and wheat. It does not take place for other products because the prices for those are generally high. A serious repercussion of this is that farmers are opting for the production of rice and wheat over other products in order to assure themselves a good return and are therefore reluctant to switch over to other crops such as pulses. This is leading to a very skewed pattern of agriculture, which is not good for the long run. Apart from this, procurement is undertaken only in a few states. For example, procurement for Assam in rice was recorded at 0 (LMTs), and records for the procurement of wheat does not even exist in Assam, for the year 2019-20. Therefore, the MSP does not really help solve the woes of farmers.

The fall in wages as a result of generations of low farm incomes, and various other issues such as GST and demonetisation has manifested itself in the form of a fall in rural consumption. Tractor sales, which are a good proxy for rural demand have shown a declining trend recently, and has fallen by 14.1%, the highest fall in four years. Two-wheeler sales and moped sales, also a good indicator of rural demand, fell by 11.7% and 19.9% respectively.

Income Inequality

India is also experiencing rising income inequality which has also been a major contributor to falling aggregate demand. The richer segment of society generally tends to save and spend much lesser portions of their income as opposed to the portion of income spent by the poor on consumption. Data from the National Sample Survey on consumption expenditure indicate increasing concentration at the top half of the population, at the cost of the lower 90% of the population.

According to Roy (2019), the beneficiaries of the 1991 reforms which constituted a small group of top earners contributed to the consumption boom experienced shortly after on account of their increased earning capacity. That earning capacity has started stagnating and the boom has inevitably come to an end. This hypothesis indicates a structural problem which has been long overlooked by the Indian economy. As the demand created by the top earners of the economy begins to exhaust, the economy would gradually slip into a "middle-income trap".

EXAMINING THE ROLE OF INVESTMENT

Theoretical Relevance

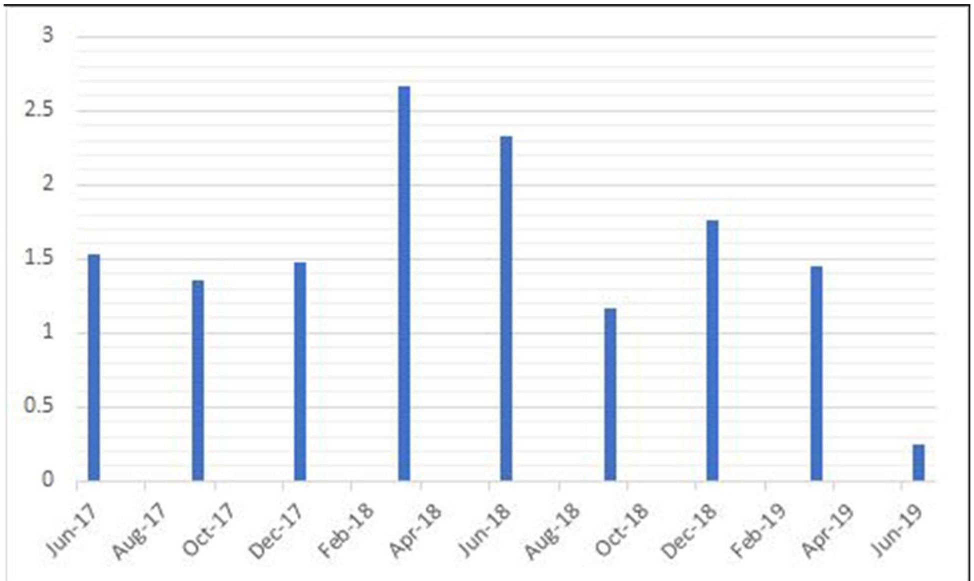
Investment has always been one of the major factors which determines the economic destiny of any country. It is one of the major drivers of economic growth and contributes to the increase in productivity, being a dynamic component of national income, determines the direction of where the economy is headed. Investment leads to an increase in productivity, and therefore leads to increased growth. This then leads to improved profits and consequently higher investments. This cycle repeats itself and therefore behaves as an economic stimulus. This stimulative effect works in the form of a multiplier, which was propped by John Maynard Keynes. An interesting aspect to note here is that the multiplier can work in the backward direction as well, and is hence, rightly termed as a 'double-edged sword'. The multiplier depends upon the initial change in the direction of investment. If investment decreases, it will bear the same effects on income, and if the value of the multiplier is high, the income will accordingly be low as well. A high multiplier in an economy with declining investments will cause a drastic reduction in the income.

Investment in New Projects

Investments particularly did not look good for 2019, specifically in respect to initiation of new projects. Prior to the Union Budget of 2019-20, investments in new projects in quarter ending in June, have seen their biggest decline in 15 years. Within Indian companies, private and public sectors cumulative announcements of new projects have decreased by 87% in comparison to 2018. The second quarter of 2019 has particularly taken a larger hit as the new projects have decreased by a shocking 81% than that of the previous quarter. Apart from the private sector investments even the new projects by the public sector have fallen by 84%. A major reason attributed to the decline in new investments particularly is the uncertainty from the general elections.

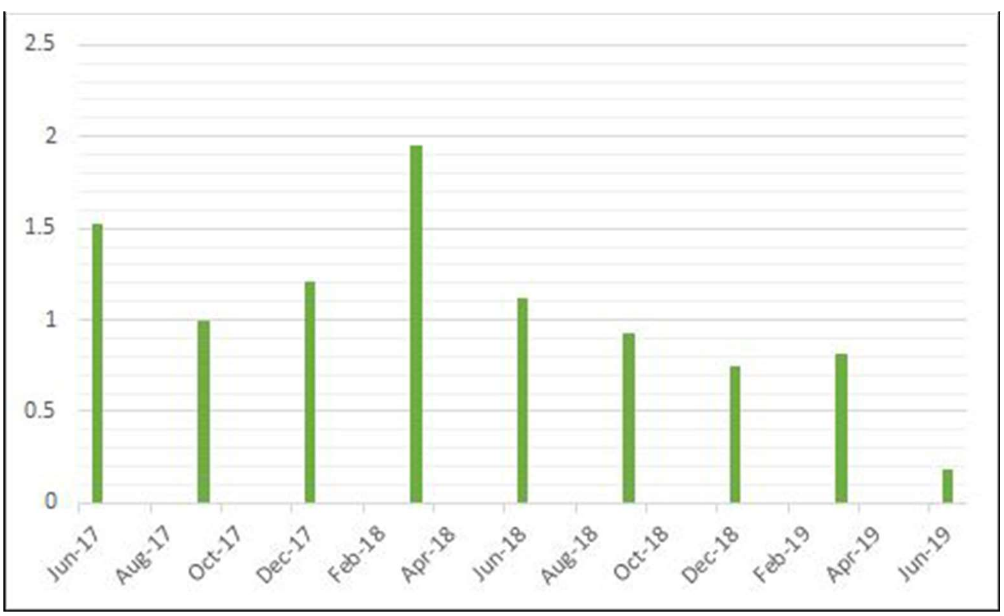
The slump is wide within the sectors as well. Manufacturing sector has taken the highest fall in absolute values, by 68% when compared to 2018, along with which even the service sector has fallen by 98%, whereas in the same quarter previous year, investments were shot up to their highest rates of the year.

Figure 8: New investments by private sector (Rs Trillion) (June 2017-June 2019)



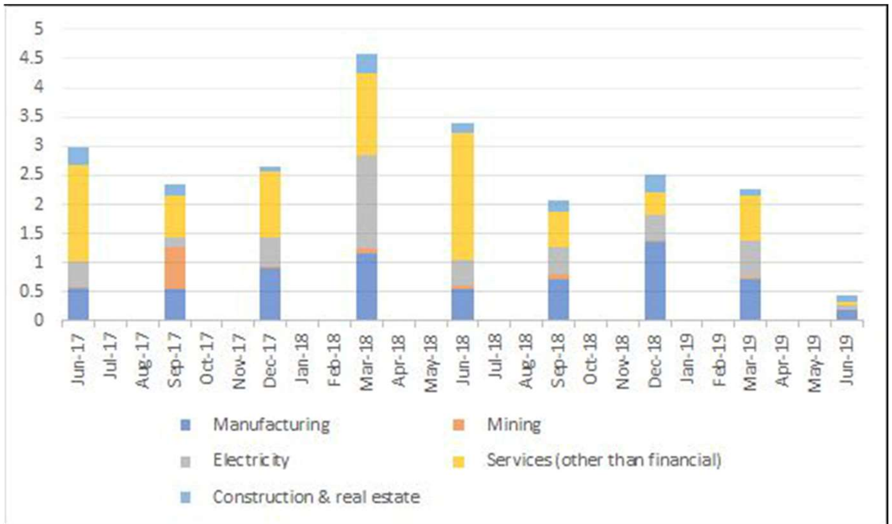
Source: CMIE Capex

Figure 9: New Projects by the government (Rs Trillion) (June 2017-June 2019)



Source: CMIE Capex

Figure 10: Sector-wise new investments (Rs Trillion)



Source: CMIE Capex

Current Stalled Investments

The Centre for Monitoring Indian Economy (CMIE) revealed that investments worth 13 trillion INR have been stalled within this period, most of which are private sector projects, highest value that has been recorded since 1995, whereas the numbers for the previous years lingered from 11-12.6 trillion INR, which clearly implies the gravity of the slowdown. Power, manufacturing and service sector alone account for a whopping 92% of total stalled projects. Although the causes for the same are being speculated to be lack of availability of funds, there seems to be a fall in the appetite of investors as well, coupled with the uncertainty surfacing from the transition to a new government. The budget was one of the opportunities for the government to address the issues of slowing economy and tackle through fiscal measures, though the scenario suggests that the perceived objective of the government was to maintain the fiscal deficit at 3.3% of the GDP.

Government Expenditure

Public investment and government expenditure play a crucial role for a developing country, in order to generate income and employment, as well as stimulate further private investment. Public spending, which affects the overall demand, as reflecting in the Central Government's budget expenditure, has been experiencing constant decline since 2015. In order to induce further private investment, the government resorted to tax cuts for corporates and foreign investors, in the period of late September in 2019, by reducing the corporate tax to 25% from previously almost 35%. As well as for the new manufacturing companies which were initiated or incorporated after September, and do not begin their productive activities before March of 2023, tax rates have been slashed down to 15% from previously 25%. These tax concessions, almost as huge as 1.45 trillion INR compromise the public spending by the government and put higher pressure on the budget, as revenue from taxation's major chunk gets sucked out through such measures by carving a fiscal deficit of about 0.7% of GDP alone. Further, incentives, tax exemptions and consumptions were increased by 16% in the year 2018-2019.

Tax cut by a huge margin as 10%, is considered to be implemented with the likely expectation of catalyzing and inducing private investment. Since the tax slash has only been announced in the beginning of the last quarter of 2019, to witness it's influence, if they are in order, a lag effect has to be taken into account to accurately measure the effectiveness or attach figures, the lag period of which cannot be determined but perhaps might not turn up within the initial quarter of 2020, but as theory suggests, along with the limitation of time lags, tax cuts do not have the tendency to lead to an equal increment in investment.

COMMON THEMES IN CONSUMPTION AND INVESTMENT

It is a natural tendency of human beings for being cautious and wary in situations of uncertainty. Risk aversion is the kind of behavior associated with such uncertain situations. An economic slowdown which has been quite apparent for more than a year now, unexpected shocks such as demonetization and GST coupled with heightened trade and geopolitical tensions on the global front, has left the people of India questioning about the future of the economy and whether it is wise to take part in it, as a consumer or as an investor. The coming section deals with the extent to which this risk aversion has manifested itself in the Indian economy.

Risk Aversion by Consumers

Consumers are well aware of the current economic situation and uncertainty is more apparent than ever. Economist and former Prime Minister Manmohan Singh describes the current situation as a "palpable climate of fear", and he is not wrong. Optimism among consumers is imperative in order to ensure that they buy and borrow, but consumers are not only risk-averse, but they also live in fear of what the future holds for them.

RBI's consumer confidence survey records a six-year low dip in consumer confidence. The Current Situation Index has fallen to 89.4 in the month of September from 95.7 in July. Future expectations index has also recorded a decline. Sentiment about the overall state of the economy and employment prospects remain extremely low with people less optimistic about their incomes in the coming years. Sentiment around income witnessed negative figures for the first time since March 2018. Discretionary spending has taken a serious hit, seriously affecting the sales in the consumer goods industry, the automobile industry and the like.

With consumers being vary about their future incomes, they will naturally delay or cancel their expenditure. Even those whose incomes are not currently affected will follow suit since it is clear from the survey that consumers are highly uncertain about their future incomes. This will naturally lead to loss of jobs in the sectors that are facing a demand shortage, which will lead to further delay and avoidance of consumption, and further job losses. In this way, the consumer sentiment has entered into a vicious cycle which has constantly been reinforcing itself.

Risk Aversion by Investors

Post the period of announcement of Union budget, when the economy still regressed further, government began with their initiative to replenish the economy, by correcting the faults in taxation, along with numerous announcements by the Finance Minister, facilitating the capital flows within financial markets and so on.

As investments are futuristic and are mostly based on forecasting and speculation, a major chunk of it arises from the psychological aspects and deductive logic for risk. A decent number of instances of fall in investment and decrease in the general morale and appetite can be attached to these aspects, specifically the uncertainty in the atmosphere with critical changes in international and domestic environment, evidently from the continued apprehension about the trade situation between US and China, as well as uncertainty within the middle east with respect to oil trade, which is breaking the balance of emerging markets. As reported by the International Monetary Fund (IMF)'s 'Uncertainty Index' which shows a sudden and high surge in the global uncertainty after maintaining stability for 20 years, due to the recent trade situation between US-China, with tensions being highest within Asia and America. This is causing businesses be averse to risk and currently only rely on festivals and other events, hoping for a change in the attitude for spending habits of people as well as inducing risk-taking behavior, particularly in the auto sector.

After slashing the corporate income tax as well, the resultant higher profits could be expected to be utilized by the firms to tidy up their balance sheets or increase shareholder's dividends, but as pointed out earlier, a rise in profits do not lead to side by side increase in investments, even if profits are enlarged, only a marginal proportion would induce investments, if the business morale and confidence stays low. Coupled with this is the fact that companies would perhaps lift their levels of retained earnings in continued risk averse mentality to create larger funds for yet more future risks and perceived losses.

The stock market is not spared from this either. The escalation of the US-China trade wars and fall in Argentina's Marvel index, have caused Indian stock markets to suffer as well. Fears of a slowdown in the domestic economy have said to contribute majorly for the current situation. Since June, the Indian stock market index Nifty 50 has gone down by 9.6%, as well as the midcap investments have been lower due to the individual stocks as opposed to sectors. The stock market also witnessed shocking fluctuations with the beginning of 2020, with on one hand 35 stocks touching their 52-week high and 14 stocks reaching their 52-week low on the other. The studies in behavioral finance list out a number of psychological factors that have an impact on the decision making of various investors. One of this is the herding behavior or "follow the leader" mentality, which refers to the tendency of an individual investor to follow a particular idolized personality or even just the crowd. Although this prevails in the stock market even under normal conditions, the impact of it is much severe during recessionary stages of an economy. This mentality drives the values of stocks of even well-performing companies, due to risk aversion, and the general notion that the majority crowd is bound to invest correctly. The occurrence of which causes companies to resort to retaining their earnings rather than reinvesting them due to apprehensions about the future market conditions, as reported by the Taskforce for Drafting New Direct Tax Legislation, which revealed that since 2014, profit-making companies were avoiding reinvestment and most investments virtually remained stagnant.

ALERTING THE DRIVERS OF GROWTH

Given that risk aversion is overarching trend in both consumers and investors, any policy to help the economy out of the slowdown needs to bring about a change in the attitude of people towards the economy, i.e. bring more confidence and certainty. The need for bringing about a mindset change becomes all the more important when we acknowledge the forward and backward linkages of each sector and the possibility of them spiralling down into a reverse multiplier. There is historic precedent for this as well. Between 1929-33, during the years of the Great Depression, America saw a 20% fall in per capita income but an 86% fall in car sales. Given income uncertainty, risk averse consumers postpone their purchases and since the auto industry has forward (loans, energy consumption etc) and backward (steel, tyre industry etc) linkages which all get affected and worsen the situation.

Attitude shifts can be brought about by good narratives. For instance, the government unveiled investment projects of Rs.102 lakh crore for infrastructure with the onset of 2020, along with the announcement of additional 3 lakh crore of projects to be added in the near future. Such 'big ticket' announcements could develop some degree of confidence among businesses and work as a psychological factor to induce investment. However, there exists an underlying problem with this. As narrative economics suggests, it is the media and other institutions which determine the degree or intensity of an impact and there exist no tools for capturing such measures, in which case government's only approach left is to let the public expenditure's effect on private investment and income level play out to lift the total investment.

Given this, the most intuitive measure by the government should be to increase the money in the hands of people. But the immediate questions are regarding the beneficiaries and the mechanism. We focus our policy suggestions primarily on the rural-side for one overarching reason: an increase in the income of a relatively rich person will not translate into higher demand for consumer durables than an increase in the income of a relatively poor person would. Measures such as reducing the repo rate or corporate tax cuts would not trickle down to the rural sector because of a broken monetary transmission mechanism and uncertainty regarding whether corporates would actually pass on the benefits to consumers (that too predominantly urban). The following sections examine the ways to boost consumption through raising rural incomes.

Increasing Agricultural Incomes

First focusing on agriculture. Immense focus has been placed on increasing agricultural output, but this has not translated into increased incomes of the farmers. The Minimum Support Price (MSP) procurement is a flawed system with procurement happening in only a few crops, mainly rice and wheat. To aggravate the issue, it takes place in a systematic manner only in a few states. Therefore, any increase in MSP on crops would benefit only those farmers producing crops such as rice and wheat which has a good procurement system in place.

The states in which the MSP procurement system is good, such as Haryana and Punjab, saw prices that were all above the MSP. The explanation for this is quite clear. Private players had to quote higher prices in order to attract the farmers if they know the government paying a higher price through the procurement system in those regions. Keeping this in mind, the very existence of a well-functioning procurement system in a particular state will give the farmers of that state a better negotiating stance since they can always sell to the government instead of the private market if they do not get an adequately high price, which will induce private markets to quote a relatively high price to begin with. This, however, entails not only a well-functioning procurement system, but the awareness about the existence and operation of such centers must be made more apparent, to both the farmers and the private market. The current MSP procurement centers in place must be revamped and procurement for all crops for which the MSP is announced, at least until the private market steps in. Announcing a higher MSP, storing more and more food grains as buffer stock as well as losing out on productive investment avenues will not work for the long run. Instead, a cap must be placed on how much procurement is allowed for each crop, and strict adherence to that must be maintained.

These are some inherent issues in the system which the government is too lackadaisical to address.

Apart from MSP, there are other avenues the government can look into to alleviate farmer distress. The Rythu Bandhu Scheme, an investment support scheme implemented in Telangana has earned the appreciation of the mass. The Telangana government has given every farmer who own land Rs 4,000 per acre per season for both Kharif and Rabi crops. The aim of this scheme is to provide initial investment support to the farmers so that they don't have to approach private money lenders. This scheme would also improve the skewed cropping pattern, since it is not dependent on production. This could lead farmers to venture into cash crops more too. There are however, some shortcomings to this scheme as well. It does not include tenant farmers and landless labourers, and since it is solely based on land ownership, it might drive up land prices. Notwithstanding, the most important takeaway from these kind of cash transfers is that implemented immediately during times of slowdown, they could act as an automatic stabiliser as it would put money in the hands of people. Even the government's scheme of providing Rs. 6000 to farmers annually, no matter how meagre, could act as a stabiliser if transferred directly to the farmers' accounts without delay.

Another interesting scheme is the KALIA Scheme implemented in Odisha, which is more widespread in its reach. This scheme includes assistance for cultivation, assistance for livelihood, assistance for vulnerable agricultural households, life insurance for cultivators and landless labourers, and interest free crop loans. With this, farm loans are not going to be written off in Odisha, and a discipline in repayment behavior is being inculcated through the banking system.

For these kinds of schemes to be implemented at the central level with such features will prove to be a major financial burden to the government. Therefore, a combination of these two schemes by making it more inclusive and covering a broad range can be implemented by the central government and by rolling out the other schemes which currently exist, except for the MSP scheme. This combination could exclude the crops which are hugely benefited by the MSP scheme such as rice, wheat and sugarcane. The existence of just these two schemes, one being the MSP and the other being the combination of the Rythu Bandhu and KALIA, will also bring about a sense of uniformity and transparency in this system all across India, and would also require less manpower working towards the implementation of these schemes, and therefore lesser corruption and inefficiency. It would also encourage, as mentioned previously, diversification into profitable cash crops. Furthermore, other modifications can be executed such as the placement of a cap on the number of times an interest free loan can be taken in a particular interval of time can be placed, tweaking the amount to be paid to farmers under each category of assurance keeping in mind a specific budget. Most importantly, repayment discipline must be fostered. The implementation of such schemes can make the agricultural industry profitable, as farmers would not only be eyeing the MSP prices and would therefore not produce keeping that in mind. Such a scheme would also instill a sense of confidence in the farmers because they will be provided with insurance.

Many experts believe that India should inculcate the Universal Basic Income (UBI), which intends to provide every citizen a basic income to cover their needs. Implementing the UBI just as it is implemented in other countries might not be the best idea for India right now. A combination of the above two schemes with a few modifications implemented on a national level can be considered as a prototype of the UBI. By implementing such a scheme for a period of time and analyzing its response as well as its impact, India could finally develop its own system of the Universal Basic Income.

Increasing Manufacturing Incomes

While increasing agricultural incomes may be one of the most sustainable ways to increase rural demand, a large proportion of Indian unskilled workers face uncertainty of employment and incomes which in turn affect their demand. Generating demand for these workers means utilizing more labour and increasing their incomes. But Indian manufacturing shows 2 distinct trends in recent times: Firstly, an increasing contractualization of labour i.e. instead of hiring workers as direct employees, they are being hired as contract labourers. Second, the excess labour from agriculture and services is not being absorbed by the manufacturing sector. Both these problems have a direct bearing on workers' wages and productivity. But probing further, we find that both these problems can be attributed to restrictive labour laws in Indian manufacturing. Papola (2008) found evidence for a rising share of capital per worker in the organized manufacturing manufacturing sector from 0.179 in 2001-02 to 0.079 in 2010-11. It can be reasoned that restrictive labour laws make employers higher more contractual labour (outside the purview of most labour laws). Contract labour has less bargaining power since it does not enjoy legal protections like direct employees, and this directly translates to low wages. So, a policy for increasing informal workers' wages must bring them to the formal sector and for that, the restrictive labour laws must be amended. The impact of such a policy has already been observed in the apparel industry by Ahluwalia et al (2018) who observed higher wages and employment in states with flexible labour laws.

Integrating the Rural Sector into the Financial System

Finally, we believe that all these measures will bear fruit only if the rural sector is included into the financial system. This can be done only through improving the situation at NBFCs since they cater to the diverse needs of the rural and informal sector better than banks. NBFC lending to the rural sector can possibly act as a multiplier given the rise in income suggested through the previous policies i.e. a rise in income will only lead to benefits if those with higher incomes are able to access credit easily. Furthermore, a well-developed NBFC sector will help repair the monetary transmission mechanism and bring financial inclusiveness in the system. We believe this to be likely since if NBFCs are financially sound, banks will transfer the impact of rate cuts by the RBI and this is likely to trickle down to the end consumers.

But in order for that to happen, certain measures need to be taken with respect to NBFCs. NPA recognition norms for NPAs must be aligned with those of banks. With the GNPA Ratio having increased from 4.1 in 2014 to 6.6 in 2018, bank confidence in lending to NBFCs is low. RBI's Financial Stability Report highlights that the failure of the largest NBFC will lead to a 2.7% loss of Tier 1 Capital and will lead to 1 defaulting bank. So, the biggest assurance for banks in terms of NBFC health is reduced NPAs. The revised NPA norms could be backed up with an Asset Quality Review of NBFCs and a systematic. Such a review should also include the subsidiaries of NBFCs which are currently not under the purview of the Central Bank.

CONCLUSION

The Indian economy in the period 2014-19, was largely fuelled by consumption and specifically government consumption expenditure. Examining the causes of the slowdown, we find it to be a largely demand side (consumption) slowdown which is largely structural-cyclical in nature. Cyclical in the sense that, in the face of policy shocks, the economy's demand has been affected without any underlying structural changes. However, due to the cyclical fall, many structural reasons come to the fore. We find that investment and consumption have been worst hit with the underlying common theme in both being that of risk aversion. In case of consumption, the fall has been largely been a consequence of uncertain incomes and employment in the rural and informal sector. We see the fall in investment largely acting as a consequence of a slowing economy rather than a cause. In order to boost the economy, we propose policy measures targeted at increasing rural incomes. Direct agricultural transfers and a more formalized labour force will contribute to stabilizing rural incomes and altering the drivers of growth in favour of a rural-led growth strategy. To reinforce the impact of increase in incomes, NBFC lending to the rural sector must increase. But for this to happen, NPA recognition norms of NBFCs must change and banks must be reassured to lend to NBFCs. Given the potential impact rural incomes can have on consumer durables, the rural led strategy can alter the mindsets of people and raise demand to lift the economy out of the slowdown.

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THE UNEMPLOYMENT PARADOX: EXPERIENCING GROWTH WITHOUT JOBS

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ABSTRACT

India, with its remarkable progress, still maintains a high discrepancy between the rate of growth of the economy and the rate of growth of employment. This paper aims to highlight this growth-employment paradox with the help of case studies. India in its quest to become a developed country has undertaken technological development and this has acted as an impediment to employment.

This paper focuses on skill mismatch and tariff liberalisation as causes of the unemployment paradox. It puts forward the role of MSMEs to replace this jobless growth with growth accompanied by gainful employment in the economy.

Keywords: Technology, Unemployment, MSME, GDP

JEL Classification: F110, F140, J640, O40, R23

INTRODUCTION: INDIA'S OVERALL GDP GROWTH AND UNEMPLOYMENT RISE

When analysing the problems related to jobless growth, one needs to be aware of the fact that the global economy in general and the Indian economy in particular has undergone a number of structural changes due to changes in government policy and global economic crisis. The introduction of the Good and Services Tax (GST), demonetisation and the implementation of several schemes to stir up the domestic economy have struck at the very roots of our economy.

The most puzzling aspect about employment policies in India in recent times is that the years of high economic growth of around 7% have been accompanied by a fall in growth rate of annual employment from 2.87% to less than 1%, marking the highest unemployment in 45 years.

According to the Vinoj Abraham's 2017 articles in the 'Economic and Political Weekly' (EPW), major labour-absorbing sectors like construction, real estate, finance, and business services sector have experienced a slowdown in the growth of gross value added (GVA) and subsequently employment creation. The IT/BPO sector within business services was a major contributor of organised sector employment in 2012 attributing 70% of the jobs created. Drop in employment in the IT/BPO by 84% was a huge blow to organised sector employment.

What remains paramount in India's employment discourse is the necessity of creating jobs that can absorb the additional labour force. Employment propelled by distress factors such as agrarian crisis and the deceleration in real wage growth will not be able to contain the aspiration of the Indian youth, particularly the educated, for long. The labour–intensive manufacturing sector has not been the engine of growth in India. In fact, the knowledge-intensive services sector along with some segments of capital-intensive manufacturing which by nature are not employment-intensive, have become the engine of growth in India.

The key facts which are prevalent in the Indian Economy at present mainly pertaining to the employment and the industrialisation scenario are-

- During the decade (2001-11), the growth rate of the labour force was 2.23%. This was significantly higher than the growth rate of employment of 1.4% which itself was several-fold less than the growth rate of the economy. According to the Census of 2011, the average growth rate of the economy was 7.7% per annum, while it was only 1.8% for employment.
- The Indian Labour Bureau survey of 2015 showed that 2,000 companies in 8 sampled industries generated only 1 lakh jobs, a fall from the 4lakh generated in 2014, even though growth in 2014 was lower than in 2015.
- A report on India's jobs growth says that "employment elasticity" in the economy is now close to 0—for each one percentage point rise in GDP, jobs grow only 0.15 percentage points. Fifteen years ago, this was 0.39.
- In India, growth is attributed to the services sector, whereby both employment and wages have seen a rise. However, the biggest employing sector in India is the agriculture sector, employing 45% of the population but contributing only 15% to the GDP, whereas the services sector is the biggest contributor to the GDP but employs less than 30%. During the last two decades, the IT and financial services have been the drivers of service sector growth. However, both of these are not employment intensive, thus, contributing to jobless growth in India.

LITERATURE REVIEW

Basu (1980) presents the Harris Todaro (HT) model to explain the rural-urban migration of labour due to rise in urban employment rates. The HT model is thus able to present the scenario of jobless growth in the economy, where a growth in the job market actually infuses joblessness in the economy.

Chang and Kon (2007) focuses on the prevalent situation of jobless growth of the economy, talking about the employment elasticities of supply.

Alessandrini (2009) analyses the jobless growth problem in Indian manufacturing in terms of a Kaldorian framework where the linkages between agriculture and industry enter the labour demand through the changes in the terms of trade between the two sectors.

This paper attempts to analyse unemployment reigning in the economy not from the supply side, but from the demand side, focusing on technological growth and industrialisation as impediments to job creation in the economy, thereby aggravating jobless growth. It embarks on prevalent scenario of the Indian economy with major emphasis on the paradox that growth is always employment-inducing.

CASE STUDIES

Introduction of ATMs

India cannot be oblivious to the global debate on the impact of automation and artificial intelligence (AI) on job growth, nor can it brush aside the importance of upgrading skills in tune with the demands of the market. Thus we see that the advent of modern technology is rapidly replacing paper with computer files, bank tellers with automated teller machines (ATMs) and file cabinets with server racks, and banks too have come a long way from the old days of manually recording transactions in a directory and tallying them up at the end of the day.

Such modern advancements in technology have had a devastating impact on the unemployment figures of the economy. Unemployment in the economy has reached its zenith in 45 years.

With the rise in automation and AI, there has been a reduction of the dependence on human tellers. The banking industry has been witnessing a slow transition from people-driven to machine-controlled in the past few years. Thus, the economy has witnessed a composition change in the workforce. The educated tellers lose their job to the migrated unskilled labour force who is employed in the capacity of technicians and workers in the industry. For every new ATM that is entered into the banking industry, it is observed that the primitive human tellers lose their jobs.

The second big challenge emerging out of this scenario is the outdating of skills for the retrenched human tellers. The existing workforce, primarily unskilled owing to phasing out of the ground level staff, is not familiar with the latest tools and applications of automation which poses a major roadblock to further development in the industry. Thus, one of the important challenges faced by the industry and not just banks in specific is the persistent skill mismatch.

Skill Mismatch

In India, the problem of skill mismatch can be evaluated in two ways. First, education in India is disconnected from the requirements of the industry and the expectations of employers, accentuating the problem of unemployment in the country. Second, skill mismatch has led to under-utilisation of resources.

Victimized by rejection, the fairly educated ones are increasingly applying for openings that require a lower educational level. In recent times, this job crunch has compelled even Ph.D. holders, let alone postgraduates, to consider openings for blue collar jobs. Since employers are likely to hire those with higher levels of education, those who have the appropriate skillset and qualifications for these jobs, are crowded out.

In India, the growing trend of perceiving education in isolation from skill and vice-versa has obscured the indispensable relationship between the two: education imparts skill and education is required to apply skills effectively. This in turn makes the labour force less equipped and prepared for the job at hand, aggravating the unemployment in the economy despite having a positive growth effect.

An uninformed demand for engineering and management education has led to the proliferation of institutions imparting these degrees in every pocket of India. There has to be a reasonable correspondence between the number of seats and job openings, so that the glut of overqualified candidates which crowds out the adequately qualified ones begins to diminish from the job market.

Tea Industry

Being one of the largest growers and producers of tea in the world, the Indian tea industry accounts for nearly 31% of the global production of tea. It is highly labour intensive contributing a huge share to the level of employment in the economy as it provides employment to more than 1.2 million people with a major part of the workforce being women.

The overall growth of the economy has given an impetus to the tea industry wherein a spurt in its production has been observed. However, with per capita consumption not moving in tandem with this increased production there has been a huge surplus in the pipeline which has brought down the overall prices, thereby impacting the overall market. It can also be observed that nearly 15 per cent rise in production of tea in North India has sent the prices of the CTC tea on a downward spiral. Industry officials have observed that the unbridled growth of small tea growers and bought leaf factories have significantly contributed to this increased production. There has been a growing unrest in the tea gardens in and around West Bengal; these include the tea gardens in Darjeeling, Alipurduar and Jalpaiguri. Darjeeling tea, known throughout the world, has experienced a massive depreciation in its quality and popularity as the rise in productivity of tea is usually accompanied by a fall in its quality.

It is seen that there is growing unrest among tea garden workers as well owing to fall in the prices of tea. Numerous holders have sold off their estates and gone for greener pastures resulting in rural urban migration of labour. With a fall in the prices of the industry, we see that the employment conditions have worsened due to wages fluctuations and other implicit factors.

Despite substantial growth in exports, rise in prices have led to rise in unemployment thereby showcasing jobless growth.

CONCLUSION

This paper has tried to analyse jobless growth in the Indian context, where the country is growing in absolute terms, but the number of jobs created is drastically going down. With enhancement of technology, skilled labour loses their jobs to unskilled labour, further escalating the unemployment rate of the economy. Hence, a more inclusive growth is necessary for the country where the economic indicators of growth are supplemented by the fall in unemployment figures.

Thus, the policies that can be put forward as a remedy to such jobless growth in the economy include:

- Making livelihood creation, core to development strategies rather than just projecting it as natural fallout of growth. In contrast to the past, organized manufacturing can no longer be the answer to generate large-scale employment. The policies should focus towards improvement in the standard of living as a pavement to employment growth.
- Revamping the education system to create the desired skill sets to curb the current devastating failure of the system in delivering what it is designed for.
- Promoting the development of job intensive sectors like food processing. Expenditure on social infrastructure like education, health, etc. would employ labour not only during its instalment but also during the functioning of the same.

Expanding the MUDRA scheme that encourages entrepreneurship can act as a game changer for

MSMEs and other start-ups. This inclusive growth facilitating instrument has the potential to meet the job requirements of the country to a considerable extent.

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FACTORS AFFECTING SECTORAL CHANGE IN FEMALE EMPLOYMENT IN INDIA BETWEEN 1980 AND 2005

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ABSTRACT

This paper aims to analyse data from various Indian Economic Censuses to identify trends and changes in the nature of jobs taken up by women in sectors other than agriculture. It also aims to study factors affecting such employment. We found that in 1980, most women were employed in manufacturing textiles, food products, beverages and tobacco products. However, this has shifted to employment in community, social and personal services, particularly education, in 2005.

Keywords: Female Labour Force Participation Rate, Push Factors, Pull Factors

INTRODUCTION

The female labour force participation rate (FLFPR) in India, already among the lowest in the world, currently shows a declining trend. The United Nations Global Compact India (UNGCI) study finds that between 2006 and 2020, the FLFPR in the country has declined from 34% to 24.8%. It further states that if the FLFPR was as high as that of men, the GDP of India would receive a boost of 27% (The United Nations Global Compact India Study, 2020). Therefore, gender equality if fundamental for economic growth.

A common explanation for a low FLFPR is the question of how "work" is defined and measured by enumerators. Work such as household upkeep and care work, disproportionately done by women, is not covered under national income accounts. In 2017, women spent 577% more time on housework than men (Organisation for Economic Co-operation and Development, 2017). The UNGCI study states that 60% of women in the productive age bracket (15-59 years) are exclusively engaged in housework.

Other factors causing a low FLFPR include more women pursuing higher education, concerns for safety, need for flexible timings and the distance from work locations. For example, of the total women who perform housework exclusively, 34% in rural areas and about 28% in urban areas were willing to work if it was available at their household premises (Chaudhary and Verick, 2014).

These barriers result in women's labour being concentrated in specific, low productivity sectors of the economy. This paper aims to analyse data to identify the trends and changes in the nature of jobs taken up by women in the non-agricultural sector through the lens of "push" and "pull" factors of employment as the economy develops over time (1980-2005).

LITERATURE REVIEW

There is a growing body of literature on the reasons behind India's low FLFPR. Numerous researchers have also documented the results of their studies on the reasons motivating women to join the workforce, and in particular, take up entrepreneurship. These form the motivation behind this analysis.

In "Pull and Push Factors for Women Entrepreneurship in Thrissur District of Kerala", K. A. Sunanda surveyed 200 respondents to find that unemployment was the most important factor that forced women to take up entrepreneurship. In "Why Women Enter Into Entrepreneurship? An Exploratory Study" by Prachita Patil and Yogesh Deshpande, they describe "push factors" and "pull factors" as motivations behind women taking up entrepreneurship. These works prompted our interest in the relevance of push and pull factors in dictating trends in women's participation in the labour force. Shadhin Kangal in his article "Development of Women Entrepreneurs in India" mentions that women's entry into business, and therefore entrepreneurship, is an extension of their kitchen activities. These refer mainly to the 3 Ps, viz. Pickles, Powder, and Pappad. With increase in education and health for women, the 3 Ps have transformed into the 3 Es, viz., Engineering, Electronics, and Energy. This formed the basis of our enquiry into whether this holds true for women's workforce participation as well.

The ILO Asia- Pacific Working Paper Series "Female labour force participation in India and beyond" by Ruchika Chaudhary and Sher Verick mentions that despite rapidly increasing economic growth and falling fertility, India's decline in the FLFPR has puzzled several policy makers and academics in the past. Our analysis aims to provide a partial explanation for this phenomenon.

ANALYSIS

As previously mentioned, females take up jobs to support their families financially, or due to unemployment, or are driven by ambition. The factors affecting a woman's decision to seek employment can be classified as "push factors" and "pull factors".

Factors which compel women to take up jobs out of necessity, rather than opportunity, are known as "push factors". These are generally forms of economic plight, such as the death of the breadwinner or unemployment. According to the Mastercard Index of Women Entrepreneurs, of the women pursuing a business, about half do so out of necessity.

Most women in India are housewives, which explains why India has a low FLFPR. However, when women are forced to take up employment, they generally do so in activities that are an extension of their domestic work. This includes preparing food products and stitching garments, among others. For example, Shri Mahila Griha Udyog Lijjat Papad was started in 1959 by seven female entrepreneurs from Mumbai who organised themselves as a cooperative to increase their families' incomes by selling *papads*. Today, the cooperative has over 43,000 employees and sells soaps, detergents, bakery products, spices and flour.

As an economy develops, two changes occur in this structure. First, on an average, the income of the principal male earner of the family starts to rise. It has been observed that females from low-income households retract from work (Thomas, 2005) - be it as an entrepreneur, a salaried employee, or as a casual labourer - during periods of economic boom and start working during periods of economic downturn. Thus, as the income of the family rises with economic development, females tend to take up less work. In other words, the role of push factors reduces.

Second, rising income also makes resources available for development of females. Traditionally, there has been a preference for boys in India, and low-income families will first choose to send boys to schools and keep them healthy, before looking after girls. Discrimination against the girl child means that they are deprived of education and nutrition. With rising incomes, families will be able to afford to send both boys and girls to school and keep them equally nourished. Thus, women become both skilled and healthy to actively join the workforce.

This leads to a rise in factors which encourage women to gain employment, known as "pull factors". Pull factors include the desire to earn money, seek independence, gain higher social status, etc.

To analyse this further, we used data on Non-Agricultural Enterprises from the Indian Economic Census. In 1980, most of the employed females (in areas other than agriculture) were classified as working in 'Manufacturing and Repair Services' (see tables 1 and 2). Further, under Manufacturing and Repair Services, most females were classified as working in 'Food Products', 'Beverages, Tobacco and Tobacco Products', 'Cotton Products' and 'Textile Products' (see Table 3).

Table 1: Female Employment in Non-Agricultural Own-Account Enterprises

Activity Group	1980		2005	
	Rural	Urban	Rural	Urban
Manufacturing and Repair Services	68.81%	62.86%	54.46%	43.72%
Wholesale and Retail Trade	18.30%	22.92%	29.90%	35.94%
Community, Social and Personal Services	7.94%	9.16%	7.78%	11.59%
Restaurants and Hotels	4.10%	3.73%	4.69%	4.60%
Others	0.83%	1.33%	3.16%	4.15%
Total	100.00%	100.00%	100.00%	100.00%

Table 2: Female Employment in Non-Agricultural Establishments

Activity Group	1980		1990		1998		2005	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Manufacturing and Repair Services	55.58%	33.83%	51.01%	26.54%	45.39%	22.72%	38.51%	23.21%
Wholesale and Retail Trade	4.84%	7.01%	3.84%	6.91%	6.76%	11.56%	12.74%	17.30%
Community, Social and Personal Services	31.16%	47.69%	37.83%	53.40%	41.17%	49.74%	40.93%	43.39%

Restaurants and Hotels	1.52%	1.74%	1.59%	1.91%	1.82%	2.50%	2.50%	3.14%
Others	6.90%	9.73%	5.73%	11.24%	4.87%	13.48%	5.33%	12.96%
Total	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Table 3: Female Employment under Manufacturing and Repair Services in 1980

Activity Group	Own-Account Enterprises	Establishments
Food Products	8.20%	17.96%
Beverages, Tobacco and Tobacco Products	23.06%	21.14%
Cotton Textiles	23.50%	21.24%
Textile Products	8.29%	5.77%
Wood and Wood Products, Furniture and Fixtures	15.64%	1.31%
Non-metallic Mineral Products	11.70%	13.12%
Others	9.61%	19.46%
Total	100.00%	100.00%

Across the years, the proportion of females working in Manufacturing and Repair Services has been higher in rural areas than in urban areas, and higher in Own-Account Enterprises than Establishments. However, over time, the proportion of females working in Manufacturing and Repair Services has been falling in both rural and urban areas, and Own-Account Enterprises and Establishments. Moreover, the proportion of females engaged in ‘Community, Social and Personal Services’ has been rising over time. Under Community, Social and Personal Services, most females in Establishments are engaged in ‘Education’ (see Table 4). Thus, we see that there has been a shift in the activities where females are employed.

Table 4: Female Employment under Community, Social and Personal Services in 2005

Activity Group	OAE	Estt
Public Administration and Defense; Compulsory Social Security	5.19%	17.47%
Education	14.85%	56.09%
Health and Social Work	11.61%	17.41%
Other Community, Social and Personal Service Activities	68.34%	9.03%
Total	100.00%	100.00%

CONCLUSION

The aim of this paper was to analyse the activities where females are employed in the context of push and pull factors. We found that when females take up employment out of necessity, they do so in areas (such as textiles, food and beverages) that require skills that are an extension of their domestic responsibilities. However, as an economy develops over time, females become healthier and more educated. In pursuit of independence they take up jobs in other sectors, most notably in education.

This also shows that there is a great deal of occupational segregation by gender in India. While earlier, most females were concentrated in

Manufacturing and Repair Services, more recently, they have been mostly engaged in both represented in low value-added sectors and India's low FLFPR, policymakers need to pay more attention to skilling women so that they take up jobs in all sectors of the economy. This is important to close the gender wage gap and to increase productivity in the labour market. In their analysis of the US labour market, Hartmann et al. (2010) found that a gender wage gap exists in both high-skilled and low-skilled occupations, and that this gap is higher in sectors where the proportion of female workers is higher. Even in India, as per the Centre for Sustainable Employment (2018), women earn about 35% to 85% of what men earn, depending on their work and education level. Thus, India's economic growth depends on where her women are employed, which, in turn, depends on their development.

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ANALYSING THE GAME OF MARRIAGE: A COMPARISON BETWEEN INDIA AND FRANCE

Mentored Research Forum, a club under the Economics Department of LSR, is an open platform that engages in research collaborations with experts and faculty to increase research intensiveness and guides its members towards working on their own research papers by organizing various workshops throughout the year. This year we received many excellent research paper entries from the club members on a wide variety of topics. Here is the winning entry:

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ABSTRACT

The paper tries to analyse differences in payoffs from marriage, between Indian society and French society, taking into consideration the economic aspect of marriage - its rationality. We observe it through a game theoretic perspective. We also seek to analyse how alternative structures like civil unions impact individual choices, and how these in turn translate into societal trends. Our findings suggest that if civil unions are introduced in India, it may lead to reduction of payoffs from marriage within India as well.

INTRODUCTION

Historically, the institution of marriage has been pivotal in determining family structure and kinship. It went on to influence the passage of wealth and property down generations, thereby upholding a major tenet of the capitalist society that we see around us today. The economic rationality behind marriage has always been an integral part of the institution itself, and there has been a lot of research to consolidate this crucial aspect of the marriage market. Marriages of convenience and mutual economic and political benefit can be found throughout history, right from European monarchy to the Mughal era in India. Power dynamics and the market have influenced marriage decisions since time immemorial, as previous research points out.

In a world that is witnessing a major shift in terms of family structure and kinship roles, it is important to go back to the basic questions of why people choose to enter into marriages in the first place, and what factors influence their decision to remain in one. This paper aims to do that through the lens of game theory, comparing the distinct payoffs that accrue to individuals within the institution of marriage, and charting out alternate arrangements that may or may not offer similar or greater incentives.

LITERATURE REVIEW

While there exists a lot of literature on the social and cultural factors that influence marriage and divorce decisions of individuals, we intend to look at the economics of it in this paper. In their paper, 'The Economics of the Marriage Contract' , Niko Matouschek and Imran Rasul put forward three hypotheses behind the rational decision of marriage, namely, the exogenous pay-offs that married partners reap, the function of marriage as a commitment device, and its role as a signaling device (Matouschek and Rasul 2008). They provide a detailed analysis of how divorce costs alter the frequency of and propensity to divorce, stating that with lower divorce costs, divorce propensity is higher in the first few years of marriage and lower in later years. Using empirical data and a game theory analysis of a Prisoner's Dilemma, they come to accord the commitment aspect the highest degree of relevance among the factors that make a marriage work.

In her investigation of heterosexual licenced cohabitors, Marion C. Willets interviewed twenty-three respondents on why they chose domestic partnership ordinances over marriage. The reasons largely came under two specific objectives, namely, economic benefits like health insurance benefit for an intimate partner or an ideological and legal alternative to the institution of marriage (Willets 2003). They were divided over whether or not these civil unions should come with the same rights and responsibilities as marriage. Her study brings to light several interesting revelations about whether or not licenced partnerships result in undermining marriage as an institution, or serve as a stepping stone to the eventuality of marriage. More recently, studies have been conducted on the empirical and theoretical implications of strategic non-marital cohabitation. They attempt to explain the counter-intuitive empirical reality of premarital cohabitation being associated with higher divorce rates, tracing out the alternative paths of dating and cohabitation in an intra-household bargaining model, highlighting the larger exit costs for cohabitors as opposed to daters that eventually lead to higher divorce rates (Farmer and Horowitz 2015). Viewing marriage as a utilitarian arrangement, they use a game theory perspective to arrive at equilibria in the marriage market.

The most extensive account of the theory of marriage, labor and divorce is given by Shoshana Grossbard in her book 'On the Economics of Marriage'. She brings in the question of how sex ratios affect the marriage market, the question of married women's labour, and the compensating differentials in marriage among other things, taking a closer look at specific countries like Israel and Nigeria to understand the spousal labour market through the lens of sociology, anthropology, demography and economics.

METHODOLOGY

In this paper, we intend to focus on a game-theoretic analysis of marriage in the Indian scenario. The game is constructed in a manner that includes an estimation of the payoffs from every action taken, and a comparison is made between French society and Indian society (with a focus on those which are Hindu patrilineal). The reason we have picked the French as a benchmark of comparison is because France allows for heterosexual civil unions, in addition to traditional marriage.

This study hopes to examine some of the reasons why two people may choose to marry or divorce. Benefits of Marriage in India will be denoted as BM_I and Benefits of Marriage in France will be denoted as BM_F.

ESTIMATION OF PAYOFFS

Upon survey of literature - qualitative and quantitative studies, we brought out the main reasons that influence decisions to marry and divorce at an individual and collective level. We examine them in detail as follows:

1. **Companionship:** A big reason why people get married is the human need for companionship. According to our analysis, there is no significant difference between the want for companionship across both societies, since it is largely universal. In fact, there is a significant trend that shows an increase in the desire for companionship with age. Thus, this reason may not differentiate payoff structures of marriage to a great extent.

Therefore, $BM_I = BM_F$ in this respect.

2. **Sex:** Sexual needs and desires play a major role in marriage decisions. Due to societal constructs of morality and honor, and pre-marital sex being a taboo in India, marriages lend a legitimacy to sexual acts. This is no longer the case in many western societies, wherein people have become more acceptive of such lifestyles.

Furthermore, there is a stigma attached to pregnancy outside of the institution of marriage in Indian society.

Therefore, in our game, the payoffs to marriage in Indian society become higher than in western societies due to this reason.

Therefore, $BM_I > BM_F$ in this respect.

3. **Children:** Children born in marriages tend to have more legal rights from both parents over their care and education in both societies. Custody of children born out of wedlock, is usually given to the mother, with a few exceptions as per the discretion of the courts. In France, legal rights of the fathers over children's custody are only applicable if they are married. Furthermore, adoption is only allowed for single persons, or married couples, which may cause major inconveniences if a couple chooses to remain unmarried. Family laws in India are quite explicit but enforced with less vigour.

Therefore, $BM_I < BM_F$ in this respect.

With respect to cultural and social norms, the picture is very different. Unmarried mothers and their children born out of wedlock are treated poorly in India and are shunned in many cases. On the other hand, it is slowly becoming more commonplace to have children without getting married in France.

Therefore, $BM_I > BM_F$ in this respect.

Taking both these situations into a broader perspective, both factors induce opposite effects, therefore finding which society provides higher overall benefits from marriage in this respect is ambiguous.

4. **Parental Obligations:** In India, a lot of value is attached to the wishes and desires of parents and family. Getting their children married and settled is extremely important to Indian parents. While this may also be true in French society, the society is much more individualistic than the Indian society. Of course, there may be parents who would want their children married off in both regions, but it tends to be more forceful in India, especially for daughters. Therefore, if we consider that parental satisfaction matters to an individual, $BM_I > BM_F$ in this respect.

5. **Financial Dependence/Independence:** Financial reasons also play an important role in marriage decisions. In the Indian context, the inherently patriarchal structure infantilizes women to a large

degree. The society is largely conditioned to believe that a woman can only attain material and financial stability through marriage, or through her husband's financial benefits on the male child, in terms of health, nutrition and education. This biased allocation of resources enables a man to be in a position to avail greater opportunities for earning his livelihood, while the sole achievement of the woman lies in securing a husband with a stable source of income. French society, however, accords greater value to the financial independence of women, and provides conducive conditions for women to have successful careers, irrespective of their marital status. Moreover, a lot of financial institutions in India link specific schemes to marriage. Insurance benefits for spouses but not cohabiting partners, and marriage as an eligibility criterion for some home loans and grants are a few examples of this uneven payoff structure.

Therefore, we can say $BM_I > BM_F$ in this respect.

income, to be more precise. This social conditioning plays a major role in according disproportionate

6. **Ease of Divorce:** This factor also plays a major role. By ease of divorce we consider the legalities associated with it, as well as the social norms behind it. In both nations, divorce laws are fairly simpler, and allow for equal distribution of wealth and estates among both parties. However, there is a lot of stigma attached to divorce in India, which deters many from ending the marriage out of fear of social exclusion. This is no longer the case in France, which is why the costs of exiting a marriage are lower in France than in India.

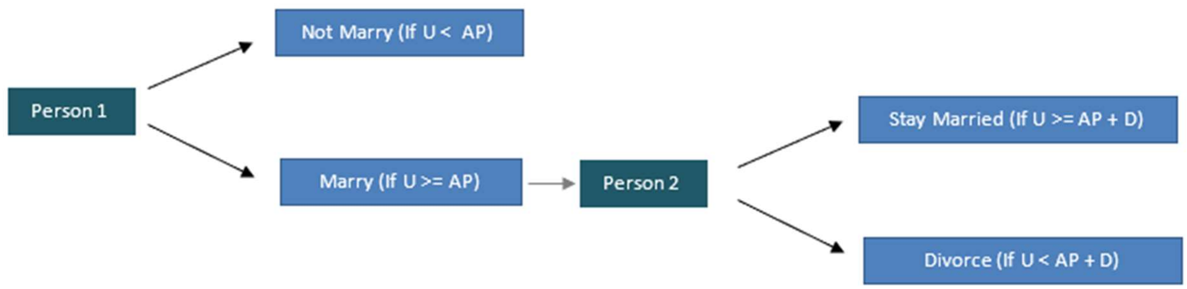
Therefore, $BM_I < BM_F$ in this respect.

The Game

Keeping the above considerations in mind, we estimated the average payoffs from marriage in numerical terms as:

Parameters	France	India
Companionship	50	50
Sex	10	50
Children	40	50
Parental Obligations	5	30
Financial Reasons	30	50
Ease of Divorce	30	50
Total Average Payoffs from Marriage	165	280

Let U be the individual's benefits gained from marriage, which includes the average payoffs (AP) + effects of personal proclivities to marriage. Let D be the costs of divorce, which may vary from case to case. Taking all these into consideration, we have created the following game of marriage:



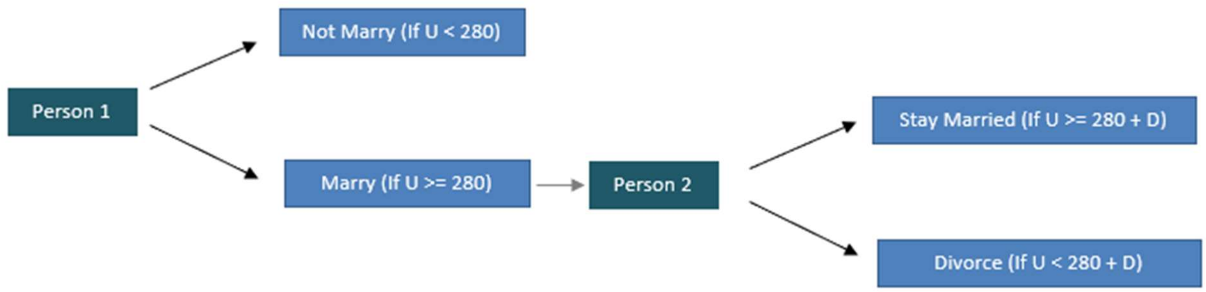
This game may have different equilibria in different situations. We explore the cases for France and India as follows:

1. **France:**

In France, there may be two possible equilibria.

A. One will be 'Not Marry', if U<165 for person 1, and/or U<165 + D for person 2.
B. The other could be ('Marry', 'Stay Married'), if U>=165 for person 1, and U>=165 +D for person 2.

2. **India:**



In India too, there may be two possible equilibria.

A. One will be 'Not Marry', if U<280 for person 1, and/or U<280 + D for person 2.
B. The other could be ('Marry', 'Stay Married'), if U>=280 for person 1, and U>=280 +D for person 2.

RESULT

From the available statistics, it could be hypothesized that France has a higher number of cases where 'not marry' is the game equilibrium, which could also be one of the major reasons why rates of divorce (estimated to be 54% in 2016) and number of heterosexual civil unions have also risen in France.

In India, however, owing to higher payoffs, and higher value of D, divorce rates are lower (estimated to be around 1% in 2016), which is why in the majority of cases in India, ('Marry' , 'Stay Married') would be the equilibrium.

THE CASE FOR CIVIL UNIONS

Civil unions have become a global phenomenon in the recent past, with more and more countries adopting them as legally recognised institutions in the last two decades. While Denmark was the first to legally institute civil unions as early as 1989, a few of the countries that recognise civil unions today include the Netherlands, Andorra, Argentina, Australia, Brazil, Colombia, Ecuador, Israel, Luxembourg, and France. While civil unions were initially instituted in most of these countries to provide rights and benefits to same-sex couples, they evolved in several of them to include heterosexual couples as well. Among the countries that recognise heterosexual civil unions, it is most popular in France.

Known as a civil solidarity pact, or a *pacte civil de solidarité* (PACS) in French, civil unions have slowly but steadily emerged as a viable alternative to traditional marriage. As per 2015 data, out of a total of 1,88,947 declared PACS, 1,81,930 heterosexual unions were registered, while the number of heterosexual marriages registered was 2,22,664. As is evident from this data, the difference between the two is not very stark, and has, in fact, decreased over the years from 2007 to 2015. For homosexual couples, 7017 couples opted for PACS in 2015 while 7700 chose traditional marriage in the same year, showing a very marginal and negligible difference between the two. The divorce rate was 44.7% in 2015, while the rate of PACS dissolution was 42% in the same year.

Analysing this data, along with other independent studies, clearly demonstrates a massive surge in the popularity of civil unions among the french, irrespective of sexual orientation, even as marriage numbers have steadily declined. While there are a large number of reasons to which this shift can be attributed, the most widely held view is that the French society is steadily rejecting the institution of marriage that is deeply entrenched in religion and patriarchy, in favour of the more flexible, egalitarian and secular civil unions. Civil unions confer most of the tax benefits and legal protections of marriage but differ in responsibilities. Under PACS, couples are allowed to file joint tax returns and stake claims on insurance benefits. They are held mutually responsible for individual debts, but inheritance taxes are not levied on partners. Along with these benefits, the costs of entering and exiting a PACS arrangement is substantially lower than that of marriage and divorce. The data, however, yields a counterintuitive result- the percentage of dissolution of PACS was lower than the divorce rate in recent times. This can be construed as a positive effect of civil unions when it comes to longevity.

In light of the recent decriminalisation of homosexuality in India in 2018, it remains to be seen if India introduces provisions for civil unions in the foreseeable future. While considerable lobbying for marital rights for the LGBTQ+ community can be expected, introducing the idea of civil unions at the policy level will dramatically impact and alter the payoffs in the game of marriage.

CONCLUSION

Whether we look at the game of marriage in the the Indian context or take a general broad-based view, the institution of marriage seems to be losing considerable ground. There has been a significant increase in the average age of marriage, which goes on to show that it has become less of a priority among the younger generation. There has also been a clear downward shift in the number of children a married couple chooses to have, and the premium on procreation seems to be on the decline. More flexible unions in the form of cohabitation and civil partnerships are gaining popularity, which further underscores the ideological shift in society away from marriage. In light of these factors and developments, it can be concluded that the introduction of civil unions in India can potentially alter the benefits paradigm of marriages. How it impacts Indian society, demography and culture remains to be seen.

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WOMEN, CRISES AND THE INDIAN ECONOMY

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ABSTRACT

This paper aims to study the gendered effects of episodes of economic slowdown of the Indian economy. Such an exercise assumes importance given the present circumstances wherein there has been a sharp contraction in economic activity. The paper used Vector Autoregression (VAR) and Impulse Response Functions (IRF) to study the relationship between economic downturn and education, health and labor market responses of women. The results indicate that Indian women have performed better when it comes to mitigating the negative effects of economic crises, as compared to their counterparts from other nations.

Keywords: Economic slowdown, Female labor force participation, Indian economy.

JEL Codes: B54, J16

INTRODUCTION

The last three decades saw the beginning of major changes in the Indian economy. The economy has achieved average growth rates of 5–9 percent, education for both men and women has risen sharply, fertility rates have declined, and infrastructure facilities have improved. All these factors are expected to reduce the demand for women's time spent in domestic chores and increase their paid-labor opportunities. Paradoxically, however, there has been a significant decline in participation rates for women in work, especially for rural women. This debate concerning female labor force participation rate, however, has the possibility of attaining a new character, now that the Indian economy is witnessing a slowdown. This paper makes use of regression analysis to highlight the gendered aspects of economic slowdown, both in the past and present. A similar framework has been used to study how women were impacted in the aftermath of the Global Economic Crisis of 2008-09. However, the investigation was implemented at the level of the world economy, ignoring the fact that crises depend on factors that are country-specific such as occupational segregation, nature of social safety nets, dependence on remittances, international trade, amount of foreign investment, reliance on overseas development aid, and Gross Domestic Product (GDP) per capita. This paper aims to fill this gap by studying factors specific to the Indian economy and society.

LITERATURE REVIEW

Research has highlighted how aggregate economic shocks do not have a homogeneous impact on men and women and gender is a rather important determinant of how economic contraction of the economy affects an individual. However, these gender differences vary across countries, income levels and stages of development. The gender differences that get accentuated during times of income shocks are partly a function of differences between men and women when it comes to accessing labor and credit markets and in the allocation of household labor, and partly due to households' coping strategies when faced with a drop in household income. These factors are elaborated below.

The strongest evidence of female labor-market response to crises comes from early 1980s and late 1990s debt crises in Latin America. Skoufias and Parker (2006) conducted a study of household survey data from mid-1990s Mexico's Peso Crisis which revealed signs of a female added-worker influence. They examined the effect of male household unemployment on the wife's likelihood of joining the labor force during Mexico's economic boom or recovery period and compared the impact to that of a recession. They noted that the unemployment of the husband increases the likelihood of the wife joining the labor force, during both economic crisis and economic prosperity, but the impact is stronger during the crisis. A study by Bhalotra and Umaña-Aponte (2009) presented a similar evidence of rising participation of women in the labor force during the 1997 East Asian crisis. It has been found that, on an average, a 10 percent drop in a country's GDP is associated with a 69 percent increase in labour force participation of women. Increasing labour force participation of women during crisis emerges even more strongly among low-and middle-income households than high income households. The highest increase was found among less educated women who traditionally experience the lowest rates of economic participation in these low-and middle-income countries.

Despite the apparent predominance of increasing female labor force participation during times of economic crisis, large numbers of women may instead withdraw from jobs during a recession under certain conditions (Sabarwal et al, 2011). For example, during the 1997 financial crisis, more women dropped out of the labor force as compared to men and became discouraged workers in South Korea. This discouraged-worker effect occurred primarily among young, single women working in the clerical and service sectors, and outweighed the increased participation by middle-aged married women who entered the labor market to maintain the family income. Evidence suggests that both entry to the labor market (added workers) and exit (discouraged workers) may operate simultaneously during crises, affecting different groups of women differently. This is because there is considerable heterogeneity in levels of educational attainment of women. Women with higher levels of education attainment often behave pro-cyclically, that is to say during an economic downturn they reduce labor market participation. This is also in keeping with the analysis of women's labor market participation during the debt crisis of the 1980s in Brazil. Due to the simultaneous occurrence of both added-and discouraged-worker effects, women belonging to poor households joined the labor force and women belonging to richer households exited, no aggregate added-worker effect was detected in the Brazil data.

Though the study of the impact of economic contraction has so far majorly focused on the implications for women with respect to labor markets, a small segment of literature has aimed to study the wider processes of fertility, health, well-being and educational attainment. With respect to fertility, it has been found that women postpone and even at times reduce childbearing during economic crises, mainly as a response to increased unemployment (Menendez and Adserà, 2009). Though the younger and more educated cohort of women were found to have postponed fertility altogether, the correlation between economic downturn and likelihood of bearing a second or third child was found to be strongest among the least educated women. However, some studies have argued that economic downturn may not have any noticeable impact on overall fertility rates, as the effects of economic crises are restricted to a certain category of women (Bhalotra, 2010).

Evidence from macroeconomic crises suggests that though the effect of such downturns can be negative for the case of educational attainment (mainly in low-income households), the consequences are not gendered, i.e., girls and boys are affected equally in terms of attendance and school enrollment (Sabarwal et al, 2011). Income variability associated with economic shocks affects children's schooling, but there are no considerable gender differences. However, the impact of economic contraction on children's health, particularly infant mortality, is strong and highly gendered. It has been found that though boys and girls both benefit equally from positive GDP growth, negative shocks are much more prejudicial to females when compared to their male counterparts. On an average, a change of one percent in per capita GDP impacts boys' infant mortality by 0.27 deaths per thousand births, and girls' infant mortality by 0.53 deaths per thousand births. This association between negative GDP shocks and girl infant mortality has been witnessed not just in regions associated with gender bias and a preference for sons, but rather universally. Moreover, almost all infant deaths resulting from a shock to GDP are girls (Friedman and Schady, 2009). One possibility is that households reduce health inputs to daughters and prioritize sons' health when income contracts.

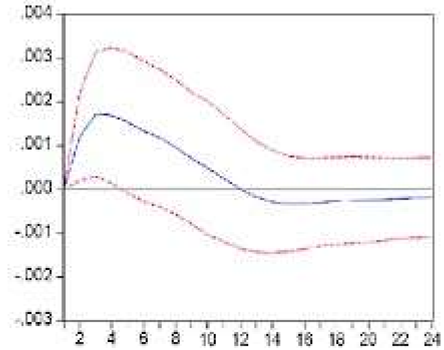
Despite the growing recognition that violence against women is a public health concern and a violation of human rights, posing a huge challenge to development, violence continues to have an unjustifiably low priority on the international development agenda. Violence against women increases in crises, threatening livelihoods and eroding human rights including the willingness of women to participate fully and fairly in society. Women and girls are subject to a greater risk of violence during times of hardship. Incidents of violence against women rise as food and fuel prices increase–adding stress to families. Certain likely effects of the crisis on women include potential increases in violence against women in society and domestic life. Another troubling trend is an increased risk of women being trafficked. The financial crisis in East Asia in 1997 serves as an example: increased trafficking of women across the Northern Chinese border as well as increased domestic violence against women have been reported and an estimated one in seven women in South Korea were involved in sex trade one year after the crisis. Insecurity and abuse—already high in times of war and post-conflict circumstances—usually increases in times of crisis. The poor and vulnerable, especially women, are disproportionately impacted (AWID, 2010).

METHODS

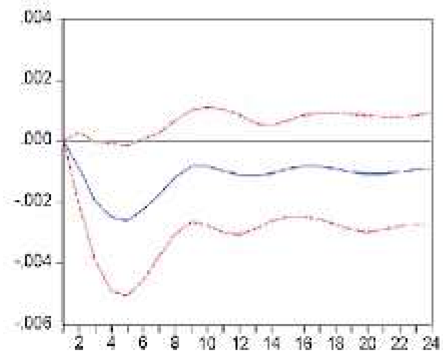
The paper makes use of Vector Autoregression (VAR) method of time-series analysis. The data is drawn from World Bank, World Economic Forum and National Crime Records Bureau (NCRB) for the period 1995-2019 for India. The author has made use of impulse response function (IRF) to interpret whether periods of economic slowdown show any gendered impact.

RESULTS

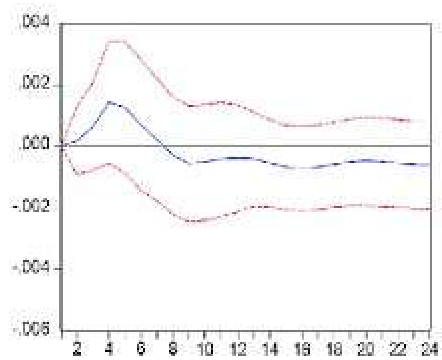
The results indicate that during episodes of economic slowdown of the Indian economy, the impact of economic contraction on women has been limited to labor market outcomes. It can be argued thus that, women have been shielded from economic shocks, when it comes to educational and health concerns. The incidence of crimes against women as well doesn't exhibit any relation with GDP contraction, as India has witnessed high levels of violence against women even during times of impressive economic growth. As far as Female Labour Force Participation Rate (FLFPR) is concerned, it can be noticed that in early post-reform period, economic slowdowns were correlated with an increase in FLFPR, however, the situation was observed to be different during the later episodes that corresponded to a falling rate of output growth. Moreover, it was observed that gender wage gap fell during periods of economic slowdown. In light of these findings, it becomes important to study the causes behind such trends in employment and wage gap, and take measures to insulate women, in terms of employment and wages, from periods of economic fluctuations.



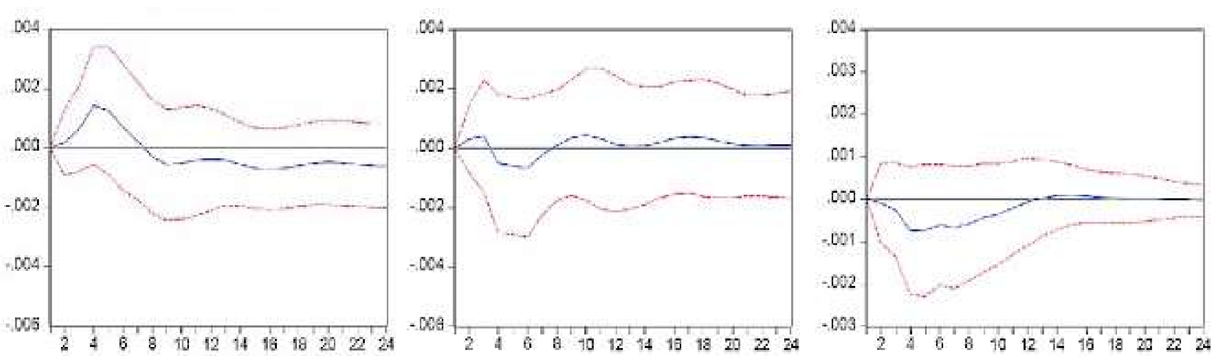
Response of Ratio of FLFPR to GDP growth (annual)



Response of Gender Wage Gap to GDP growth (annual)

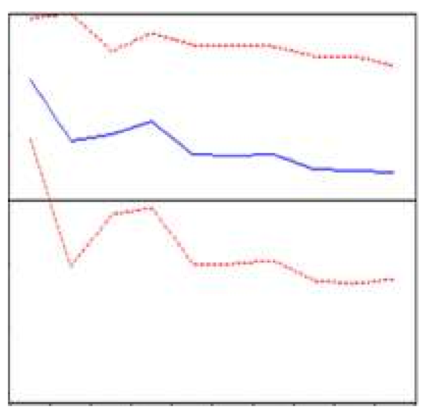


Response of Ratio of female-to-male infant mortality to GDP growth (annual)



Response of Gross School Enrollment to GDP growth (annual)

a) Primary b) Secondary c) Tertiary



Response of Crimes Against Women to GDP growth (annual)

A possible explanation could be that earlier, an increase in FLFPRwas driven by women entering as agricultural laborers in fields during times of economic slowdown. Therefore, as incomes of male household members fell, women entered and formed major part of rural agricultural workforce. However, the possibility of such a scenario has been reduced by the rapid feminization of agriculture. Put simply, women do not have opportunities to augment household income by entering agricultural workforce, as an already high number of women, who form the majority of India's female labor, are engaged in agriculture, and industries and services themselves lay off large number of workers. In such a scenario, it can be argued that the fall in gender wage gap during periods of economic contraction stems from a fall in the wages of men, rather than any material improvement towards the cause of gender equality. Lastly, the dependency of most low-income households on public education and health could mean that a reduction of income doesn't translate into a worse situation for women's education and health. This is in sharp contrast to findings from a number of other countries like Philippines, where a high degree of reliance on private sector for education as well as health means that a fall in income during recession forces families to prioritize the concerns of boys over those of girls.

CONCLUSION

Though the findings presented in the paper paint a relatively better picture for Indian women during times of economic crises when compared to other countries due to little or no impact on their education and health outcomes, it is important for policymakers to analyze what needs to be done to insulate labor markets from such episodes. A prime area of concern in this discourse would be targeting occupational and sectoral segregation. Segregation of economy by gender is harmful for both men and women. For instance, East Asian economies relied on export-oriented growth for their advancement. This growth was fueled by labor-intensive industries that were dominated by women. Thus, the impact of growth remained gendered due to occupational segregation. Further, during 1997 East Asian financial crisis, the export-oriented industries were most severely hit, and as a result, women saw huge job losses. The negative impacts in this case are again gendered. An absence of segregation of industries and sectors by gender, thus, is extremely consequential for ensuring gender equality. Moreover, there is a need to invest in better educational and health facilities, as these not only further the cause of human development, but also act as buffer during times of economic distress, and reduce any possibility of reversal of gains made in the realm of gender equality.

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FACTORS AFFECTING INFANT MORTALITY IN DEVELOPING COUNTRIES

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ABSTRACT

Gender equality, literacy level and environmental performance can majorly affect the infant mortality levels of a country. This study empirically analyses the impact of gender inequality, literacy level and environmental performance on infant mortality in the developing economies of the world (as of 2015; 100 countries). It was found that whereas gender inequality is directly related to infant mortality, literacy rate and environmental performance were inversely related to it in the linear regressions that were carried out. The collective impact of the factors was quite high considering which policy recommendations have been provided towards the end.

Keywords: Infant Mortality, Gender Inequality, Literacy Rate, Environmental Performance

JEL Classifications: O15, H52, Q5

INTRODUCTION

Preserving the life of newborns has been a long-standing issue in public health, social policies and humanitarian endeavours. High infant mortality rates are generally indicative of unmet public health needs such as sanitation, medical care, nutrition and education. Infant mortality is also given importance because healthy children today will lead to a healthy workforce tomorrow that will lead to higher national income for the nation. Infant mortality, which is the death of human infants before one year of age, is measure by the Infant Mortality Rate which is defined as the number of deaths of human infants before the age of one per 1000 live births. Studying the infant mortality in developing countries is imperative as infant mortality is an excellent indicator of development. There is a huge difference in the infant mortality rates (IMR) between developing and developed nations. For instance, in Switzerland and the United States of America, the IMR is 3.7 and 5.8, respectively whereas in developing nations such as India and Afghanistan the IMR is 41.36 and 71.12, respectively. Thus, studying infant mortality allows the authorities of the developing nations to identify sources of high IMR and take actions to eradicate them. The importance of IMR as a development indicator is reflected in the fact that one of the Millennium Development Goals was to reduce IMR by two thirds in 2015 relative to the level in 1990 (Guibou, 2017). However, this goal was not completely achieved, making it even more important to understand the causes of a high IMR and slow rate of decline of IMR.

The studies regarding infant mortality have largely focussed on two factors affecting it, income level of a nation and public health care system of the nation. Both factors are extremely important in determining the trends of infant mortality and have direct and significant effects on the general health conditions of the population. An increase in income and the subsequent economic development lead to several advancements that work towards reducing infant mortality rates. A somewhat equitable increase in national income leads to increase in private disposable income of the poor and make it easier for them to afford medical facilities such as vaccines and medicines for sick children. These help in improving the health of infants and give them a chance to live past their first birthday. Additionally, a higher spending on public health by the government also improves the accessibility of medical facilities by the poor. Schemes that provide medicines and vaccines at subsidised rates and programmes that work for the betterment of maternal and newborn facilities help to reduce IMR (Kurinczuk, Hollowell, Brocklehurst, Gray, 2019).

It is a common belief that wealthier nations are healthier nations. However, the wealth of a nation is not the only factor that is responsible for the high or low levels of infant mortality in a country. There are several other factors that may have an indirect impact on the health of newborn children. Not just the economic situation, but the socio-cultural norms of a country also play a part in determining the infant mortality rate. In this research article, I focus on the effects of Gender Inequality Index (GII), Literacy Rate and Environmental Performance Index (EPI) on Infant Mortality Rate in 100 developing countries. The effect of the above-mentioned factors on IMR is studied through linear regressions using Ordinary Least Squares method.

Gender inequality remains a major barrier to development. Girls and women have made major strides since 1990, but they have not yet gained gender equity. The disadvantages facing women and girls are a major source of inequality. All too often, women and girls are discriminated against in health, education, political representation, labour market, etc.—with negative consequences for development of their capabilities and their freedom of choice. The GII is an inequality index. It measures gender inequalities in three important aspects of human development—reproductive health, measured by maternal mortality ratio and adolescent birth rates; empowerment, measured by proportion of parliamentary seats occupied by females and proportion of adult females and males aged 25 years and older with at least some secondary education; and economic status, expressed as labour market participation and measured by labour force participation rate of female and male populations aged 15 years and older. It measures the human development costs of gender inequality. Thus, the higher the GII value the more disparities between females and males and the more loss to human development. According to our apriori expectations, GII and IMR have a positive relationship as a highly gender biased society would see a higher level of death of female infants, either through infanticide or neglect in nutrition and post-natal care (UNDP, 2019).

UNESCO has drafted a definition of literacy as the “ability to identify, understand, interpret, create, communicate, compute and use printed, and written materials associated with varying contexts”. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society. The National Literacy Mission, an initiative started by the Government of India, defines literacy as acquiring the skills of reading, writing and arithmetic and the ability to apply them to one's day-to-day life. The achievement of functional literacy implies (i) selfreliance in 3 R's, (ii) awareness of the causes of deprivation and the ability to move towards amelioration of their condition by participating in the process of development, (iii) acquiring skills to improve economic status and general well-being, and (iv) imbibing values such as national integration, conservation of environment, women's equality, observance of small family norms. According to our apriori expectations, Literacy Rate and IMR have a negative relationship as in an increasingly educated society, parents would take steps to ensure that their child is healthy and lives a long life. Better quality of pre-natal and post-natal care would be sought and this would improve chances of a child having better health (National Literacy Mission, 2001).

The last factor that we will study in this article is Environmental Performance Index, which is a method of quantifying the environmental impact that a country makes. It is calculated by considering several variables that fall under the two broad categories of 'environment health' and 'ecosystem vitality'. In a world that is industrialising at a greater extent with every passing day, the natural environment has severely deteriorated. Increasing air pollution, water pollution and general degradation of the environment has become commonplace. The effects of this deterioration on human health can be seen through several indicators that are even more serious in developing countries as they do not have the required resources to combat it. Environmental performance has an even greater impact on newborn children due to the vulnerability of infants and their undeveloped immune systems. According to our apriori expectations, the EPI and IMR have a negative relation as a higher EPI score means better environmental performance by the nation and hence, lesser infant deaths (Environmental Performance Index, 2018).

REGRESSIONS

Linear Model-1

Infant Mortality (Rate) and Gender Inequality (Index):

$$Y_i = B_1 + B_2X_{2i} + u_i$$

where, Y: Infant Mortality Rate
X_2: Gender Inequality Index

$\hat{Y}_i = b_1 + b_2X_{2i}$, where b_1 and b_2 are estimators of B_1 and B_2, respectively.

Here, the apriori expectation of b_2 is positive because as gender inequality in a country increases, infant mortality rate increases. Thus,
H_0: $b_2 = 0$
H_a: $b_2 > 0$

Table 1: OLS, using observations 1-100
Dependent variable: Infant Mortality

	Coefficient	Std. Error	t-ratio	p-value
Const	-19.2831	4.20788	-4.538	<0.00001
GII	121.972	9.23697	13.20	<0.00001

According to the regression run by OLS method, the estimated coefficients are:

$b_1 = -19.1511$
$b_2 = 120.771$

- b_1 in the current world scenario is statistically insignificant as gender inequality has not been equal to zero in any country as of now, though theoretically if gender inequality is zero, that is if in the given equation, X is zero, then infant mortality rate will be -19.1511.
- b_2 is positive implying that an increase in gender inequality in a country leads to an increase in

- infant mortality which is in accordance to our apriori expectations. In other words, an increase in gender inequality index by one unit leads to an increase in infant mortality by *120.771* units.

R^2 value of 0.63813 means that 63.8130% of total variation in infant mortality rate around its mean value is explained by gender inequality.

Linear Model-2

Infant Mortality (Rate) and Literacy (Rate):

$$Y_i = B_1 + B_3X_{3i} + u_i$$

where, Y: Infant Mortality Rate
X_3: Literacy Rate

$\hat{Y}_i = b_1 + b_3X_{3i}$, where b_1 and b_3 are estimators of B_1 and B_3, respectively.

Here, the apriori expectation of b_3 is negative because as literacy level in a country increases, infant mortality rate decreases. Thus,
H_0: $b_3 = 0$
H_a: $b_3 < 0$

Table 2: OLS, using observations 1-100
Dependent variable: Infant Mortality

	Coefficient	Std. Error	t-ratio	p-value
Const	102.318	5.54463	18.45	<0.00001
LR	-0.868060	0.0673636	-12.89	<0.00001

According to the regression run by OLS method, the estimated coefficients are:

$b_1 = 102.529$
$b_3 = -.0880006$

- b_1 in the current world scenario is statistically insignificant as literacy level (rate) has not been equal to zero in any country as of now, though theoretically if literacy rate is zero, that is if in the given equation, X is zero, then infant mortality rate will be 102.529.
- b_3 is negative implying that an increase in literacy level in a country leads to a decrease in infant mortality which is in accordance to our apriori expectations. In other words, an increase in literacy rate by one unit leads to a decrease in infant mortality by *0.868060* units.

R^2 value of 0.624136 means that 62.4136% of total variation in infant mortality rate around its mean value is explained by literacy rate.

Linear Model-3

Infant Mortality (Rate) and Environmental Performance (Index):

$$Y_i = B_1 + B_4X_{4i} + u_i$$

where, Y: Infant Mortality Rate
X_4: Environmental Performance Index

$\hat{Y}_i = b_1 + b_4X_{4i}$, where b_1 and b_4 are estimators of B_1 and B_4, respectively.

Here, the apriori expectations of b_4 is negative because as environmental performance index of a country increases, infant mortality rate decreases. Thus,
H_0: $b_4 = 0$
H_a: $b_4 < 0$

Table 3: OLS, using observations 1-100
Dependent variable: Infant Mortality

	Coefficient	Std. Error	t-ratio	p-value
Const	115.816	8.16090	14.19	<0.00001
EPI	-1.60138	0.154991	-10.33	<0.00001

According to the regression run by OLS method, the estimated coefficients are:

$b_1 = 102.529$
$b_4 = -1.60138$

- b_1 in the current world scenario is statistically insignificant as EPI has not been equal to zero in any country as of now, though theoretically if EPI is zero, that is if in the given equation, X is zero, then infant mortality rate will be 115.816.
- b_3 is negative implying that an increase in EPI of a country leads to a decrease in infant mortality which is in accordance to our apriori expectations. In other words, an increase in EPI by one unit leads to a decrease in infant mortality by *1.60138* units.

R^2 value of 0.521369 means that 52.1369% of total variation in IMR around its mean value is explained by EPI.

CONCLUSION

In contrast to richer nations where injuries are the leading cause of childhood mortality, in developing countries environmental and socio-cultural factors are responsible for childhood mortality. Most childhood deaths in developing countries are avoidable and with the right steps taken by the right authorities, the infant mortality in many developing countries can be reduced significantly. Steps taken to reduce infant mortality will have an independent effect on the general health conditions of the entire population and a healthy population is a more productive population. Studying only income or only public health services when studying infant mortality leads to incomplete information and thus, results in persistence of high IMR even after certain policy implementations to reduce it. Therefore, it needs to be understood that infant mortality cannot be studied in isolation and the effects of all underlying factors must be considered for policy formation so that the policies are truly effective in bringing down the IMR.

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INTERVIEW

INTERVIEW: DR. JAYAN JOSE THOMAS

Dr. Jayan Jose Thomas is currently an Associate Professor at Indian Institute of Technology, Delhi. He has previously held academic positions at the National University of Singapore, Indian Statistical Institute, Kolkata, Madras School of Economics and Central University of Kerala. He completed his PhD in development economics from the Indira Gandhi Institute of Development Research, Mumbai. His research work has dealt with various aspects of Indian development, especially issues related to labour, technology, and industrialization. His research papers have appeared in journals including World Development, Development and Change and Economic and Political Weekly. He was awarded the 'Young Labour Economist Award' by the Indian Society of Labour Economics in 2003.

Interviewer: *There is consensus that the Indian economy is facing a slowdown. In your expert opinion, is it a part of the greater global cyclical slowdown or is there an underlying structural crisis that is driving the Indian economic slowdown?*

Dr. Jayan Jose Thomas: If we analyse the Indian economy's growth 1991 onwards, it has seen different rates of growth. The period of 1991-96 was a period of fast growth which was mainly driven by investment, which was then followed by a slowdown period from 1995-2003. The Indian economy revived 2003 onwards and some scholars even describe it as a dream-run for India. If we understand the standard equation for calculation of GDP i.e., summation of G, I, C and NX (where, G is government expenditure, I is investment, C is consumption expenditure and NX is net exports), Investment and Net Exports were flaring and driving growth. By the end of this period i.e., 2007, investment growth rate was almost as high as China's which is what prompted the world media's attention to India as a potential rival to China since it was mimicking the latter's trend of investment-driven fast-paced growth. The 2008 Financial Crisis put a strain on Net Exports and one response to that is focusing on other components like Investment, including both public and private investment which China resorted to and had a booming investment after 2008. India's investment was around 39% of GDP in 2011 and while public investment did not increase, private investment also slowed down and consequently, in the financial year 2016-17, investment fell from 39% to 33% of GDP.

If we shift our focus from components of growth to the sectors of growth, we study first the agricultural sector which even in 2018, employed 42% workforce as per data of the Periodic Labour Force Survey (PLFS). Structural problems have existed since the 1950s due to policy negligence. During the initial phase of planning, much of the investment was in industry as it was assumed that better results in agriculture can be achieved without high investment. After 1991, there was a clear under-investment in agriculture, irrigation and rural credit systems. Between the financial periods of 2007-08 to 2011-12, there was still some revival, despite its long-term structural issues, part of which was driven by expenditure on MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act). Following this, there was a decline in public investment and public expenditure in rural areas which led the rural economy into crisis.

If we look at the manufacturing sector, latest statistics say employment in manufacturing is 61.3 million, out of which employment in the organised sector is 14million and this leads us to say that almost 80% is engaged in the informal sector, making it a key sector.

While employment has been increasing in the big firms, including those in the automobile industry and farming has been R&D (research and development) intensive, the core of employment generation lies with the Micro, Small and Medium Enterprises (MSME). However, this sector which is imperative for employment generation has not been faring well due to long-term infrastructure problems which have worsened in recent times. If we are to compare MSMEs in India to ones in China, the costs differ majorly due to the aforementioned reason. In countries like India, like other East Asian countries where growth has been charged by MSMEs, policy making must be geared to favour this sector. In addition, there is a gap in accessibility to formal banking since banks are reluctant to grant loans to MSMEs and charge high interest rates, unlike with big firms. In recent times, there has been a shift in the relationship between big and small firms. Automation is driving big firms to grow independent of small firms and on a large scale.

In India, planners initially assumed that the service sector would suffice for growth, but this sector faces the problem of employment creation which is exacerbated by automation and technological developments. In simultaneity to long-term factors, short-term factors and policy changes, such as demonetisation of high-value currency notes which has adversely impacted the informal sector and also the introduction of Goods and Services Tax which might be a good step forward, but be a major challenge to entrepreneurs.

In conclusion, rural challenges and challenges impacting the informal sector on a large scale is what is driving the Indian economy into crisis.

Interviewer: *Given that economic growth is at a six year low, according to figures provided by the Centre for Monitoring the Indian Economy, unemployment is hovering around 7 - 7.5%, private consumption is stalled, there is a need to revive investment, in this context, what is your expectation from the upcoming budget especially with regards to India's aspiration to become a 5 trillion economy?*

Dr. Thomas: We must steer our focus towards employment and productive sectors, which are agriculture and manufacturing. Investment is the key to reviving these sectors and when private investors are wary of investing, it is the correct time for the government to invest. One viable candidate for investment would be the food processing industry because it has the potential to revive the agricultural sector but is a manufacturing industry and can generate employment. This would also help tackle the issue of agricultural output not reaching the market due to existing infrastructural and logistical issues.

It is imperative to look for the domestic market because we find ourselves in a situation where prospects of an export-led growth are rather dim, unlike China in the 1980s-90s. We must go back to what economic planners preached in the 1950s, that is to look at the domestic market. Any kind of economic policy or industry that revives employment, wages and thereby revives consumption while that consumption can be a source for new industries to come up in India.

Out of the Indian workforce, around 50% is self-employed so we can agree that India is a country with great potential for entrepreneurship. However, we lack favourable policies- industrial and agricultural, both. Therefore, we need policies to offer cheaper credit and finance, provide technology and offer consultations.

In order to achieve the 5 trillion economy aspiration, the answer lies at the intersection of employment creation, investment in productive sectors and favourable policies for small businesses and entrepreneurs.

Interviewer: *To continue our discussion of the slowdown, do you think that this global slowdown will be as severe as the 2008 global slowdown and how will it pan out for India given that in 2008 we managed to decouple our economy from the world economy?*

Dr. Thomas: Many developed countries of the world have reached a demographic structure where the working age population is declining, which will be a source for slowing growth in the future. Even for China, the working-age population has started declining, in contrast to the rapid increase in the 1980s and 1990s. With that understanding, the world economy would probably have to look for new sources of growth. In that sense, India, like Africa and other South Asian nations, will have great prospects since our working-age population is expected to expand till 2050.

This is a region with booming potential, but also concurrently high inequalities with a large proportion of the population living below the poverty line. It is of interest to the world economy that this region experiences is a wage-led growth. With geopolitical complexities, East Asian nations have still managed to cooperate on their economic fronts and 1970s onwards, this region emerged as one with great economic growth. Similarly, India has a great opportunity for growth in the coming years, like other South Asian nations.

Interviewer: *Now, to bring the focus on the situation of employment, Sir I would like to ask you, given that around 42% of India's working age population is engaged in the agricultural sector and its contribution to the GDP is less than 20%, how do you think India can resolve this contribution to production - employment discrepancy and move people from agriculture to manufacturing?*

Dr. Thomas: This phenomenon is closely linked to India's employment. Recently, there has been debate about how unemployment in India has increased from 2.1% in 2012 to 6.1% in 2018. A large part of our workforce is employed in the agriculture sector. Our definition of 'employment' in agriculture differs from that in other sectors. As per this, a person has been working for only one hour per day for 30 days in an entire year, that person is still considered to be employed which makes the possibility of under-employment in agriculture very high.

The discrepancy of 42% share in employment and only less than 20% share in GDP arises from the aforementioned issue i.e., a large number of people are not needed in the agricultural sector. The young refuse to be under-employed in this sector and are moving out to other sectors. As per data, 15-29 aged women that have received at least secondary level education have grown from 18% in 2004 to 42% in 2018. While this big jump in enrollment rate does not necessarily signify dissemination of all skills, it does change aspirations, leading more people to leave the agricultural sector.

Therefore, the challenge in the agricultural sector stems from the natural increase in working-age population which will increase till 2050 and people moving out of this sector which National Sample Survey Organisation has been capturing since 2004.

One sector that created employment in the 2005-12 was the construction sector which accounted for almost half of non-agricultural jobs. New employment in construction in rural areas was 18 million in 2005-12 which has declined to less than 2 million in 2012-18 so clearly, it faces a slowdown due to rural slowdown and that it is dependent on other sectors as well.

The way out of the current unsustainable situation is employment generation, higher enrolment rates and having a highly productive manufacturing sector which can, to some extent be built on rural demand.

Interviewer: *No discussion on the future prospects of Indian economy is complete without talking about its demographic dividend. Policymakers are faced with the daunting task of educating and skilling the youth to harness the demographic dividend. How do you think India can productively engage its young population or do you think India will miss this historic opportunity of taking advantage of its demographic dividend?*

Dr. Thomas: It is accurate that this is a historic opportunity for India, but we may have already missed out on it. The population aged 15-29 has been increasing at the rate of around 12 million per day in the period between 2010 and 2020. Simultaneously, we are experiencing an ageing population which has started in some states, such as Kerala where the population in the age group 0-14 years was only 23% of its total population in 2011, while the corresponding figure in Bihar was 43%. We can conclude that the lesser developed states of India, such as Uttar Pradesh and Bihar will have a higher demographic dividend so, while it is an opportunity for India, it is an even bigger opportunity for the lesser developed states

However, so far, we have been unable to achieve this and added to that, statistics show that unemployment has increased hugely in the young age group. The young worker in rural India now is very different from what it was two decades back, due to increase in education and change in aspirations, but enough job opportunities do not exist to cater to this change. Unemployment in 12-29 aged men was 5.9% in 2012 and 17.7% in 2018. A similar trend is true for women, but data actually shows them withdrawing from the workforce entirely.

Policy is needed for both demand and supply i.e., employment generation to drive the demand for workers and skill generation to drive the supply of an efficient workforce. In response to the changing aspirations and demand for education, there exists a gap in the quality of teaching, as well as infrastructure. Since the 1960s, the drivers of growth have always been the skilled and educated workers, so we are in need of policies to prepare a workforce in the first place. Amartya Sen, among many other economists, emphasize that we must invest in social infrastructure, education and healthcare in order to grow and develop.

Interviewer: *How do we fill the gap between demand and supply of skills in the economy? Will this require a complete revision of the pre-existing education system and what role do vocational studies play in shifting workers from agricultural to manufacturing sector?*

Dr. Thomas: There is an imperative role of Industrial Training Institutes, polytechnic institutions, vocational studies, etc. when it comes to skill development. This is another lesson that India can lead from East Asian countries where more importance is allocated to polytechnic institutions. The growth of private engineering colleges is great, while many engineering graduates diversify to other fields, although important, but creates a gap in the mass of engineers involved in manufacturing and new-age technology.

When we think of education, we must not restrict our understanding to only professional skill-building. Education has a greater intrinsic importance and has the potential to transform lives. To broaden our idea, we must understand that education in arts is important, especially now. In order to harness innovation, we must move towards more interdisciplinary education.

Interviewer: *In context, of our demographic dividend, it is imperative to look at the spending on education and learning outcomes. Currently, India spends around 1.7% of its GDP on elementary education with per capita spending at $179.9. Whereas the UK spends 5.6% of its GDP for the same with the corresponding per person figure at around $9000. Do you think we have the fiscal space to increase expenditure on education and improve our learning outcomes?*

Dr. Thomas: For any annual government budget, allocation to education and healthcare must go up considerably. We must increase our focus on public education as private education is only available to the relatively rich. The result of an imbalance towards private education would prove to be catastrophic, given the pre-existing high inequalities. Other than the equity perspective, I am also concerned about the new knowledge and new technology that is created.

Private education sector will cater to the professional demands of the multinational corporations, so the technology actually required may not get created in that space. Many technologies that we need, such as food processing and pharmaceutical technologies, are not currently available in the first place. A reason behind this is that multinational Corporations may not be interested in technologies that create employment in third-world countries or developing countries like India.

There is a need for public funding of research and education, in the light of the latest technologies needed. When it comes to innovation, it can definitely be harnessed from interdisciplinary learnings, but also from diversities where India thrives.

Interviewer: *Terms like 'Uberisation' of the workforce are gaining currency. We are now seeing the prevalence of the gig economy also called the 'sharing' economy, 'open talent' economy, 'freelance' economy or the on-demand economy. Do you think this new paradigm of work represents a favourable trend for India?*

Dr. Thomas: Since we have already established that India is a country for entrepreneurship where people survive on their ideas and enterprises. So, a change in nature of work can prove to be beneficial for India since it would favour entrepreneurship.

Technologies can work both ways, but the question arises who wants that technology. Employees at companies like Uber and Ola benefit from high perks, but at the same time, the degree of exploitation is increasing. For example, the high amount that drivers have to pay to these companies and some drivers have to work for extensive hours to make their ends meet.

The problem lies at the point that we are dependent on a select few companies due to the concentration of technologies with them. A positive change can be seen in Kerala where there are attempts to create similar platforms. In order to encourage this, opportunities should be made available to entrepreneurs in the first place for them to flourish. This must be done though bank credit at cheap rates, availability of technology to those wishing to start an enterprise. India has the potential to replicate the success of the United States which is also a country for entrepreneurship.

Interviewer: *As we know that female labour force participation has been falling from an already low level. It is true that there is significant under-reporting of women's employment, especially with respect to work done on family farms and enterprises, as well as lack of recognition of the productive contributions made by unpaid work within households, the so-called 'labour of love'. What do you think are the reasons for this declining* *female participation in a growing economy like India?*

Dr. Thomas: It is true that the Indian economy is growing, but employment is not growing enough, that too with a huge decline in female employment. If we are to look at employed females as a proportion of all females across all age groups, the figure was 24% in 2004 and is now less than 17%. Among other reasons, there have been many withdrawals from the agricultural sector which employed a large part of rural female workers.

Another consideration here is the methodology to measure employment. There are many time surveying methods that account for the amount of time spent by women, both inside and outside the household and many studies also conclude that women work many more hours than women, in urban as well as rural areas.

Women work both outside the household and outside the agricultural sector. In other east Asian countries, women are a big part of the workforce of emerging industries, such as in Japan and China. Unfortunately, India differs in this regard and employment generation is poor for both men and women. This economic situation, coupled with the social situation is highly unfavourable for women, in general. This is exacerbated by lack of generation of quality jobs and transportation and infrastructure gaps.

If the situation were so that the employment opportunities had been growing and there were greater accessibility to women, it is likely that household activities will move outside the household itself which can usually be gauged by the availability of affordable food in the market too. These activities are not quantified in the calculation of national income, but they do build the society, as well as the economy.

Interview conducted by Anusha Sharma, Deepti Kansal, Premansh Sahni, Shaivya, and transcribed by Ridhima Singh.
Date of the Interview: 28th January 2020

INTERVIEW: MS. JAYASHREE SAHOO

As the world fights the novel coronavirus, the global economy has taken a hit. Countries are now faced with the task of reopening economies in a phased manner, and the challenge is even more complex for India due to the presence of a large informal sector. Here is our interview with Ms. Jayashree Sahoo, Teacher-in-Charge, Department of Economics, Lady Shri Ram College for Women, discussing India's strategy of early lockdown and the path of recovery:

Interviewer: *What are your views on the way the government and citizens have responded to the Coronavirus crisis and do you think the strategy of lockdown with gradual and phased reopening of the economy working for India? What more steps do you think we can take such as improving our health infrastructure, extensive testing, contact tracing etc.?*

Ms. Jayashree Sahoo: With reference to the initiatives taken by the government and citizens to respond to the crisis, I am deeply satisfied for the timely implementation of lockdown which enabled the government to prepare health infrastructure. It is a collective fight for the country on a war footing. I feel that lockdown was inevitable and helped in containing the spread and speed of pandemic. As far as reopening is concerned, I agree with the strategy. I also want to add here that lockdown is not a long-term solution in the context of India where we have other pressing socio-economic issues to be addressed. With regard to future steps to be taken to improve health infrastructure, I think the government needs to invest vigorously on health infrastructure and encourage private health sector to participate and fight the pandemic together.

Interviewer: *For the informal sector, the lockdown has come across as a trade-off between life and livelihood. What should the government focus on in the coming months to ensure 'Life with Livelihood' instead of 'Life then Livelihood', as many economists have emphasised?*

Ms. Sahoo: Yes, I do agree on the objective of "Life with livelihood" as our informal sector is badly hit. I feel that the government should strengthen social welfare schemes, come up with new employment and income generation schemes. In addition, the government should fortify our PDS to ensure food security.

Interviewer: *In the post – Covid 19 world, with supply chains being massively hit and obstacles to migration and travel, many fear a reversal of globalisation. How would you respond to this?*

Ms. Sahoo: Post COVID-19 the world economy will be different, but I feel that reverse globalization is an over-simplified apprehension.

Interviewer: *To prevent the spread of the novel coronavirus and follow the norms of social distancing, classroom teaching learning has been suspended and as a result online education is on a rise. Do you think the trend of online education is here to stay and can it replace the classroom teaching-learning process?*

Ms. Sahoo: Well, online teaching-learning process is an interim dispensation and certainly, not even a remote substitute of classroom teaching-learning.

Interviewer: *With falling consumption expenditure, muted investment, increasing layoffs and the resulting unemployment, what do you think will be the overarching impact of this pandemic driven economic crisis and the role that the economic* *package announced by the government can play in this regard? When do you foresee the world recovering from it?*

Ms. Sahoo: Yes, the government has to play a very active role in providing additional fiscal stimulus and ensuring that the benefits are actually transmitted to the desired section. In addition, private sector needs to be encouraged by making investment related norms more liberal and flexible ensuring easy credit is available to them. In particular the MSME sector can play a very big role in creating employment income, contributing to supply chain.

Interviewer: *Lastly, what would be your message to the graduating batch of 2020 as they prepare to take a step ahead in their career?*

Ms. Sahoo: "Live life to the fullest, give it nothing but your best." On behalf of the Economics Department, LSR, I wish you all the very best in all your endeavours and academic pursuits. Do not let anything deter your ambitions. All the best!

Interview conducted online.
Date of the Interview: 23rd May 2020

BOOK REVIEW

REPUBLIC OF BELIEFS: A REVIEW

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To analyse the conjunction of law and economics—two subjects that pervade our lives extensively—is a tall order. Kaushik Basu's *Republic of Beliefs* is an engaging monograph that achieves this with stunning clarity. Drawing on an extensive body of work, it is a product of careful and critical thinking. This becomes apparent from the introduction itself, wherein the agenda of identifying the fault lines in the neoclassical approach to law and economics, proposing the alternative "focal point approach" and exploring its implications, is clearly laid out.

Most people are familiar with the neoclassical approach—the introduction of a new law (dis)incentivises certain actions by altering the expected payoffs associated with them, implicitly assuming that law enforcers are not utility maximisers. Basu argues that in the larger "game of life", law enforcers too must be thought of as endogenous agents, so that the introduction of a law doesn't change the game by changing payoffs or the set of available actions. It only causes agents to modify their beliefs about how others will act—this is the only way in which the law is influential—thereby directing them to a new equilibrium, i.e., to a new focal point. This is an equilibrium that exists in the game without the law as neither the payoffs nor the action set is changed; if all agents behaved in the absence of the law as they do in this equilibrium, the same outcome would be achieved. More importantly, the model has an intuitive appeal in being able to explain corruption and why certain countries are more adept at enforcing laws.

Consequently, the focal point approach is undoubtedly an insight that economists and legal scholars alike would marvel at. However, it is even more academically satisfying to see the attention paid to nuances, be it distinguishing between social norms and laws (which seems deceptively similar in this paradigm) or introducing readers to focal curbs that may be more relevant in certain cases than focal points. Basu shows remarkable thought in incorporating findings from behavioural economics into the model in later stages, which is then used to explain why compliance and non-compliance of the law would be a poor indicator of its legitimacy.

Even the lay reader is bound to get engrossed in the discourse which is characterised by palpable intellectual delight in theoretical pursuit and sprinkled with astute and wittily humorous political comments. In forming a bidirectional loop between theory and anecdotal evidence, Basu avoids exposing himself to the all too frequent criticism of unrealism in economics. His delightful philosophical forays, such as those on Hume's law, serve to remind the reader that this is only an *approach* to *law*, which needs to be supplemented by further thinking. While there are instances of needless repetition and the concluding chapter is long-winded, the monograph is a compelling account of how, "we are all, for good or for bad, citizens of the republic of beliefs".

MISBEHAVING - THE MAKING OF BEHAVIOURAL ECONOMICS

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The core premise of economic theory is that people choose by optimizing. How is it then that a greater number of people get stuck in pyramid schemes than in truly beneficial retirement plans? The Nobel Laureate Richard Thaler's book, Misbehaving is a peek into the making of the very futuristic field of behavioural economics. This book acts like a memoir of Thaler's work, his constant rebuttals with orthodox economists and a brief deconstruction of all the foundations of economics that we so dearly hold true. Being a witty storyteller, he has gracefully tied complex microeconomic theory into a series of anecdotes and created a book that questions what we believe about economics while also opening a way to change the way we believe.

There are two rationales that form the basis of economic theory—consumers optimize their consumption and markets are efficient in allocation of resources. Misbehaving is an attempt to dismantle the first, because unlike assumptions of rationality consumers aren't natural economists. Most of the decisions they make are irrational and unpredictable - they will wear around shoes which hurt their feet just because they spent 3000 on them, even though sunken costs must be ignored. Thaler makes an attempt to explain that anomalies are actually not that uncommon and perhaps adherence to rationality is.He develops several new concepts to explain these behaviours like mental accounting- the acquisition cost , the one we know and the transaction cost, one that an economist ignores, and the nudge- a phenomenon that oversteps rationality. In another instance, he proves losses of what we already have hurt us substantially more than new gains satisfy us. It gives us some pleasure to gain something, but it distresses us far more to lose something, which throws the endowment effect out of the window. What we give is never numerically equal to what we take. Many of the moves he has explained are widely around us today- shops which are always on sale, with a discernible before and after prize. The second half of the book breaks down the parable about markets being efficient in the allocation of resources. A prolonged debate with his fellow economist, Eugene Fama, ended with the agreement - that markets are inefficient, and you can beat the market. The dot-com bubble showed the exponents of market efficiency to be wrongheaded.

The book is a hilarious read, quirked by the characters it follows- orthodox economists, and behaviourists. Smartly written, it is almost a quest for the underdog- the upcoming behavioural economist and his brushes with barricaded journals, and unamazed conformist economists. It is also a commentary on the world of academia- "both sides were confident they had won" and elucidates the most excruciating tasks of academic writing. The subject matter lies on the cusp of economics and psychology and is an easy and accessible read for even those that aren't heavily acquainted with these subjects. The research which forms the backbone is varied across corporate leadership, quilt buying behaviours, preferences of beer addicts, and even selection of housing for faculty officers in an elite school. Many of the theories are not backed by real empirical evidence which is ironic since this field came into place because of economists not looking at 'natural evidence enough'. It does not fundamentally discuss economic paradigm and unless accompanied by his other works, many of the claims appear refutable. It also has no mention of the pioneer of this field Maurice Allais who designed the first empirical experiments in behaviour economics.

This is one books in the golden trifecta that is the introductory point for anyone seeking to gage more knowledge of the subject, along with 'Nudge' by Thaler and Cass Sustein and 'Thinking Fast and Slow" by Daniel Kahneman, who along with Amos Tversky was a close aide to Thaler and oversaw much of the research he undertook. It paves way for the future of behavioural economics- liberatian paternalism which is increasingly adopted by government bodies and private participants to mould frameworks which are as close to the irrational human as ever.

WHO COOKED ADAM SMITH'S DINNER BY KATHERINE MARÇAL

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A Swedish writer and editor, Katrine Marçal in her book 'Who Cooked Adam Smith's Dinner?" has raised and delved into complex questions surrounding the role of women in economics, or rather the perception thereof. After her nomination for the Swedish August Prize in 2012, her work was translated to English to drive a strong feminist narrative of how landmark economic models and theories have been avoiding the role of women and hold a singular and illustioned view of the 'economic man' and its 'rationality'.

Each chapter is intricately designed to guide the reader from key economic periods, failures of economic theories that held the assumption of the 'rational economic man' as a prerequisite central idea - all starting from the dinner table of the Father of Political Economy, Adam Smith. The casual feminist argument starts with recognising the historically followed idea of non-exhaustive self-interest serving as the locomotive of the economic system and that the romanticised idea of the Invisible Hand fails to account for "the invisible sex". Global economists at the University of Chicago, led by Gary Becker and others through the decades have attempted to think through questions such as: Does the 'rationality' of the market justify the status quo of the gender wage gap? Why are biological differences extended to a politics of gender? Where and how does a woman without self-motivated interests fit into such a system - the economy. The responses through time have assumed rationality as a given factor, instead of putting this premise into question with applications of game theory and behavioural economics.

As we study the chronology of economic booms and bubbles, we derive a realistic comparison of estimated behaviour of the 'rational economic man' and then the collective behaviour of men and women in co-existence. As Marçal riddles through a world of intersectional inequalities crippled further by gendered discrimination, she commends how women have leaned into the workplace, but still have to make additional efforts in order to keep up with professional expectations and household commitments. Her work also discovers the shortcoming of the domestic work industry, although encouraging women participation in the workforce, also leads to inequalities among female factions themselves which leads us to think that the currently perceived economy is built for, by and of the economic man whose rationality is itself questionable.

As women take up more leadership positions around the world, Katrine Marçal demands for us to think about feminism's place in a masculine structure - the economy of the rational economic man. It pushes us to understand and act on the implicit discrimination that persists in workplace environments, how pre-defined gendered norms dictate our markets till date, how we fail to recognise irrationality in the name of markets being perfectly objective.

SCHOOLS OF THOUGHT

'Schools of Thought' was started with the idea of providing a space where students could voice their opinions, provide policy suggestions and analyse a wide range of topics from the multidimensional lens of social sciences. The following section includes some of the opinion pieces and articles sent by students across India. We hope that this will prove to be an enriching and an insightful read.

MORE THAN A BURDEN

The Write Economist was an online article writing competition that judged the economic analytical skills of the applicants and their ability to present the same in a written format. The participants were assigned news agencies, whose points of view were to be represented in an opinion editorial on the economic impact of refugees on host countries. Here's the winning article:

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Far away from ravaged cities and irrevocably changed destinies, we can barely begin to comprehend the trauma an expectant mother or an orphaned teenage boy experiences when fleeing the only home they've ever known. What makes the tragedy even more devastating is our desperate attempt to dehumanise, 'other' refugees and perceive them as threats to our way of life. Whether it is Aylan Kurdi or the Rohingyas, growing antagonism towards foreign cultures has led to us debate their status as liabilities. However, contrary to hearsay, many studies have proven that instead of being a burden to the state and its subjects, refugees impact the socio-economic well-being of a country quite positively.

Before moving on, a word of caution is pertinent. The usual commingling of refugees and migrants is unwarranted, baseless and takes substance away from the discourse due to various irregularities. Migrants usually shift towards better-developed countries as their movement is deliberate and often, permanent. Refugees, conversely, face involuntary displacement which tends to be temporary, in search of long-term shelter. Be it due to political persecution in Myanmar or civil war in Sudan, they are left with no choice. As migrants are generally received by high-income countries and refugees by low-income ones, these terms must not be used interchangeably.

Refugees increase the quantum of population fighting over limited resources. This competition creates inflationary pressures and may reduce the availability of goods for local inhabitants. It also strains the administration as men and material have to be diverted to handle them. Naturally, for less developed countries, this costs the government significantly. However, having acknowledged these arguments, we observe that most of these come from economic theory and lack substantial evidence for corroboration.

UNDERSTANDING PREJUDICE

Perhaps it is smart to start at the beginning - what goes on in refugee camps? While media perception and our imagination lead us to believe that refugees spend the day recounting their woes, one mustn't forget the indomitable human spirit that seeks to survive and better its circumstances. Recent studies have shown that they actively engage with the host for both sustenance and to gain acceptance in society. From providing employment opportunities to builders, psychologists, cooks, and other basic support staff to supporting small businesses surrounding camp area, it leaves space for creativity in social entrepreneurship and rise in non-government organisations, too. Many firms have sprung up to specifically support refugees through job-hunting, legal advocacy or in providing credit opportunities. Even in lives beyond the camp, refugees are entrepreneurial and sincere in trying to establish themselves in society, simultaneously helping others in similar situations to themselves.

Although often treated as second class citizens, given menial jobs and assumed to be unskilled, refugees constantly prove their mettle. In Canada, as per data from 'Citizenship and Immigration Canada', after 10 years of stay, around 66% of refugees declared earned incomes and paid taxes whereas only 39% 'investment immigrants' declared any income and kept it low to save tax. The adage about high crime rates among refugees has also been disproven by various studies over time, adding more reason for us to have belief in them.

THE WAGE WOE

A popular cause for concern among native workers is the fall in wages due to refugees' willingness to work at very low remuneration. But, the discriminatory, unfair and invalid assumption at work here is that all refugees are just poor and unskilled. We need to understand that when an entire country gets embroiled in a civil war or faces foreign aggression, it affects everyone. From the rich and highly educated to the middle class, everyone tries to seek shelter.

Economists majorly agree that even in the presence of refugees, the native labour - if at all - is only hurt in short term or small numbers. Native workers typically have access to different systems and facilities and thus have a different skill set as compared to refugees. Additionally, the added labour force allows native workers to flourish in a more competitive environment, pushing them to specialise in better paying, localised or region-specific jobs. A 2015 study by Mette Foged and Giovanni Peri shows that by virtue of this specialisation, locals in new jobs earn around 3% more than before.

POLICY-DRIVEN IMPACT

Perspective makes a world of change to the issue of refugees. If the government looks at them as a burden, it deprives itself and the rest of the country the chance to discover their potential. Hence, government attitude and policy is key here, as demonstrated by Uganda.

In Uganda, refugees have been allowed to self-settle rather than being allotted places. This has enabled them to become more independent and rely less on government or foreign aid for their expenses, in addition to being better contributors to their host community. This proves that it is possible, viable and feasible for refugees to be made economic assets by well-thought-out government strategy and implementation. It also implies that negative impacts on the host country and not singularly the fault of the refugees themselves but can also be attributed to governmental mismanagement and apathy.

While it is necessary to acknowledge the growing presence and influence of refugees on host countries, we must push beyond the usual humdrum that surrounds the conversation. It is imperative that we realise how growing scepticism and non-acceptance of refugees feeds into false beliefs in economic myths surrounding their presence to become a self-enforcing, vicious cycle. If one continues to buy into the arguments of economic losses, one must also introspect about the bias and classism in the assumptions inherent to them. In discussions about law, morality, and economics, like all else, we must learn how to turn circumstance a friend rather than a foe.

THE SPIRIT OF SOLIDARITY—AN ODE TO OUR COLLECTIVE HOPE

The Write Economist was an online article writing competition that judged the economic analytical skills of the applicants and their ability to present the same in a written format. The participants were assigned news agencies, whose points of view were to be represented in an opinion editorial on the economic impact of refugees on host countries. Following is the article that was adjudged second runner-up:

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According to the UNHCR, as of 2019, an unprecedented 70.8 million individuals have been forcibly displaced from their native land, due to the threats of religious and political persecution, violence, or other inhuman atrocities. The huge influx of asylum-seekers translates into significant pressures for the host country, and it is imperative to realise their true socio-economic impact. However, to arrive at any definitive conclusion, we must effectively analyse the nuances of the refugee crisis, and how it is distinct from other forms of migration.

While there exists a cornucopia of literature on the economic effects of labour migration on the origin and destination countries, the studies analysing the same for refugees remains far more limited. The prevalent belief that supporting a multitude of vulnerable individuals is inherently detrimental to the host country, is grossly misplaced. Whether refugees pose a net cost or benefit to the host, is rather ambiguous and depends on a number of factors – the size of the host country's economy, its stance on refugees, policy prescriptions, socio-cultural difference between the refugee and native populations, among others. Here too, the issue lies with a paucity of existing data. While there has been sufficient research into the economic effects of refugees on developed countries, studies on the same in developing economies are few and far between. This is especially harrowing, given the fact that as of today, the majority of these refugees are granted asylum in low or middle-income countries like Jordan, Lebanon, Pakistan and Turkey.

However, the economic advantages of hosting refugees are gradually being realised in the Western World. Germany, for example, is the only European country to no restrictions to the forcibly displaced and gained significant political leverage after announcing their famous 'open-border' policy in 2015, during the European Refugee Crisis. However, this gesture was not solely motivated by lofty humanitarianism, but also by a sense of economic prudence. However, the sky-high public sector costs required to safely incorporate these individuals into an increasingly hostile, alien society, have been sufficient to invite cynicism. This, along with the complications of integrating refugees into a workforce with prevalent language barriers, has led to a widespread political narrative which flagrantly underemphasizes the economic potential of refugees. For example, in 2016, the German government spent 21.7 billion euros in refugee rehabilitation programmes, but it did so in a year when it ran a mammoth budget surplus of 6.2 billion euros. This ostensible 'crisis' surprisingly translated into several hefty boosts for the country. The hike in refugee expenditure, provided a colossal stimulus to the German economy, resulting in windfall gains to the private sector, in the form of rising federal demand for food and housing. The country also allows refugees to integrate into the labour force, with minimum entry-level barriers, thus allowing the individual to earn, and consequently alleviate the financial burden on the country. Although Germany can boast of a steady, robust economy, its demographic trend shows a shrinking and ageing population, which may aggravate its scarcity of cheap, skilled labour. Thus, it would be in its best interest to seek out a potential workforce in its refugees. A host country's generosity to the refugees of another country, can also have improve diplomatic relations between the two, lending to greater international and economic security. For the most part, opening one's doors to refugees is a win-win situation. Even the growing concern regarding losing precious employment opportunities to refugees is largely unfounded, as most migration economists believe that the local and refugee communities are typically equipped with distinct skill sets and seek out different occupations. The current scenario in Germany is not entirely unique, however. The country's welcoming attitude towards a booming refugee population has inspired other countries like Canada to follow suit and launch large-scale social welfare schemes to holistically provide for these marginalised communities.

But we cannot hope to solve this looming crisis solely in terms of economic costs and benefits. A crisis of this magnitude is a test to humanity itself. With an ever-increasing incidence of terror attacks, civil wars, and ethnic persecution, the number of forcibly displaced people in the world is projected to rise in the years to come. In the midst of incessant fearmongering in the media and political discourse, the lack of commensurate resettlement measures only adds to a general atmosphere of angst and antipathy. How we choose to deal with this imminent crisis will bear testimony to our collective conscience as a global community. We need to foster greater political solidarity and commitment to these vulnerable groups and allow them with a global platform to voice their opinions. Developed countries should be encouraged to allow and integrate a larger number of refugees, and thus ameliorate the burden on the developing countries (which host the bulk of the incoming refugees) and arrive at a more equitable share of duties.

This is not to imply that economic incentives and humanitarian responsibilities are necessarily at odds with each other – they are not. In most cases, fostering a healthy environment for these individuals will inevitably result in huge socio-economic returns for both the native and refugee communities. However, in preparing to deal with this crisis, we must invoke our spirit of universal community – one that is larger than our individual selves and motivations. Only in doing so, can we plausibly hope for a collective future, where no one is left behind, and humanity can progress as a whole.

MONETARY POLICY—HAS THE RESERVE BANK OF INDIA LOST ITS AMMUNITION?

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Crocin is known to be the best fever buster. Be it body ache, back ache or shoulder pain, this medicine is always on the top-of-the mind of consumers. Its indispensability results from its fast reaction and the ability to soothe the end user. GlaxoSmithKline (GSK) is the manufacturer.

Now, replace Crocin, fever and GSK with monetary policy, economic & financial crisis and central bank respectively. Today, when a country is struck with a financial or economic crisis, the onus to revive the economy falls largely on the country's central bank. The apex financial institution is expected to respond proactively using its conventional tools to turn around the economy. However, with the world becoming more complex, the efficacy of monetary policy is coming into question. A multitude of factors affect the so called 'Monetary Transmission'. It is the process by which the money market and the goods market is affected by the central bank's rate action. The Reserve Bank of India usually has reserve requirements, repo operations and open market operations as the conventional quantitative tools at its disposable to manage liquidity in the economy.

Take for instance the repo rate cuts carried out in FY19-20. Amid a sagging economy, the RBI cut the repo rate by 135 basis points to 5.15%. However, India's corresponding credit growth rate declined from 13.07% in February 2019 to 9.257% in January 2020. This points to the inefficiency of the transmission mechanism. Firstly, the reason why a fall in repo rate did not translate into decline in lending rates was because of high term premium. Term premium is defined as the difference between the market yield on 10-year government securities and overnight repo rate. Since private borrowing does not happen at the overnight rate, nothing may happen to lending rates if a drop in repo rates is accompanied by a high term premium. The gist here is that banks will be willing to cut interest rates on the loans offered by them when interest on fixed-deposits or other sources of lending comes down. This issue was later addressed by the RBI when it announced the Operation Twist in December 2019. This involved buying 10000 crores worth of 10-year government securities (G-Secs) and simultaneously sold G-Secs of shorter maturities of the same quantum. This led to fall in the yields on the 10-year G-Secs.

Secondly, the repo cuts were carried out at a time when the Indian banking sector was saddled with toxic loans. The banks' balance sheets were not strong enough to withstand a rate cut. The role of bank capital and capital requirements was not given much attention to carry out the transmission process. The health of the financial sector was weak and trying to pass on the new terms of credit in this situation seemed futile. In the words of Mr. Raghuram Rajan – 'It is like trying to send water through a broken pipe. It is going to leak out all over the place. You need to fix the pipe also and not just try and send the water through'. Lastly, there is no guarantee whether low interest rates will be strong enough an incentive for companies to borrow and invest. Hence the confidence in the economy also plays a major role in the transmission mechanism.

Despite these shortcomings, the RBI took a series of bold steps to inject the much-needed liquidity. Rising food inflation in the last quarter of the FY19-20 provided less elbow room for the central bank to cut repo rate. It resorted to Long-term repo operations

(LTRO). Under LTRO, the bank aims to fulfil the one year and three-year liquidity needs of the banks at the repo rate i.e at 5.15%. The first LTRO operation in February received an encouraging response which indicates banks' high appetite for cheap funds. The central bank also relaxed the cash reserve requirements on the incremental loans given to certain key sectors of the economy – automobile, home and micro, small and medium enterprises. - till 31st July 2020. This will increase the flow of credit to these sectors.

The excess cash in the Indian banking system as on 2nd January 2020 was to the tune of Rs 4.04 lakh crore. The question remains whether this excess liquidity will reach the most productive investment opportunities. It seems that the RBI is adding new unconventional tools to its armoury. We can only hope that the ammunition is not lost.

Coming to my earlier analogy, if the person running with high temperature does not take care of her body, then crocin will not work its magic. On a similar note, if the economy is not supported with strong structural reforms, then monetary policy will only give partial results. Improving the financial health and reducing the fiscal deficit will go a long way in catapulting India to trajectories of high growth rates.

HOW CAN INDIA GET RICH BEFORE IT GETS TOO OLD?

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At a time when countries like Japan with almost 27% of its population at or above the 65 - year threshold, are confronted with an ageing population, India is poised to become the world's youngest nation by 2030 with only 6% of its population above the 65 - year mark in 2018. The median age in 2020 is projected to be 29 years for India whereas the corresponding figure for China stands at 37 years. In this article, we try to analyze India's demographic transition especially concerning its youth and working - class population. The ballooning young population presents itself as a double -edged sword, whether it will squeeze and put pressure on India's resources or will it prove to be a catalyst in accelerating economic growth remains to be seen. This question has been the elephant in the room in umpteen policy discussions and subject for extensive academic research.

In view of the forthcoming fourth industrial revolution where most of the jobs will be of a technical, creative and multidisciplinary nature, if India aims to lead the world as a true knowledge economy, it must invest in skilling, up – skilling and re – skilling its present workforce and the upcoming generation of workers according to the needs of the 21st century economy. India has the unique and indeed a historic opportunity to supply skilled labour globally and become the world's skill capital. Policymakers are faced with the daunting task of educating and skilling the youth to harness the population explosion into a demographic dividend. The challenge is to transform the burgeoning young population into skilled human capital. How can India skill its future workforce according to the needs of this 21st century economy and create enough jobs for them?

When talking about skilling, first we need to understand the scenario of education in India in general and higher education in particular. According to the draft National Education Policy (NEP) 2019, India's public expenditure on education as a percentage of GDP remained at an abysmal low of 2.7% in 2017, representing only 10% of the total government spending (Centre and States). Whereas public expenditure on education as a percentage of the GDP was 5% for the US and 5.5% for the UK in 2017. The goal of 6% public expenditure on education still remains elusive. The aim must be to increase government spending on education to 20% from the current 10%.

Further, according to the All India Survey on Higher Education 2017 - 18, the Gross Enrolment Ratio (GER) in higher education, calculated for 18-23 years of age group, is 25.8% in India. In comparison, according to the World Bank data on gross tertiary school enrolment rates, USA scored a figure of 89% in 2016 and Brazil, a BRICS nation like India, managed to achieve 50% gross tertiary enrolment in 2016. It is indeed surprising that enrolment of youth in technical education remains lower than the seating capacity. Let us not just look at quantitative measures but also qualitative ones.

Presently, no Indian university features in the top 100 list of various global rankings. If we look at the percentage of our workforce that has received formal skill training, the National Skill Development policy highlights that only 5.4% of the workers have received formal skill training in India compared to 96% in South Korea and 80% in Japan. To supplement these figures, according to the India Skill Report 2019, only 47 per cent of those coming out of higher educational institutions are employable. Such a low figure should serve as a wake - up call to attract the government's and the policymakers' attention. Niti Aayog's report 'Strategy for New India @ 75' recognised the mismatch between the demand and supply of skills and the resulting disequilibrium in the labour market. This is one of the major reasons why fresh graduates are unable to find adequate employment opportunities and employers face difficulties in recruiting untrained job seekers. Expensive 'on the job training' and the lack of soft skills which cannot be built over a short period contribute to the employment imbroglio.

So how do we reform this situation? The problem can be solved by a three - pronged framework – Skill Acquisition, Skill Matching and Skill Anticipation. Ensuring acquisition requires greater enrolment in technical and vocational education. Skill matching requires removing the wedge between the demand and supply of skills. Progress has been made on this front. National Occupational Standards (NOS) which specify the standard of performance, knowledge and understanding required when carrying out a particular activity in the workplace have been established. National Skill Development Commission has extended support to various Central Ministries & State Skilling Missions in aligning their curricula with National Occupational Standards.

In this age of digital information where Google knows just about everything, traditional pedagogy and rote memorization have become irrelevant. Therefore, to achieve the objective of skill matching, the need is to move to application - based learning which is consistent with industry expectations. Anticipating future skill needs to adapt skill development courses is also important. The curriculum and pedagogy at all higher education institutions should be updated continuously through mandatory feedback from domain experts, faculty, students, industry, and alumni.

Skill development must be inclusive. According to the ILO India Labour Market Update 2017, in 2011 – 12, 82.2% of the workers were employed in the unorganised sector. Thus, majority of India's workforce has access to very limited training facilities, upgrading of skills, both in manufacturing and services sectors. Workers in the unorganised sector cannot be ignored as sustained economic growth requires an enormous addition of 581 million skilled workers to the workforce. This is not possible unless the labour force in the unorganised sector is skilled through effective vocational training.

The opportunity for India to become rich before it gets too old is coming at it like a full toss. Whether India takes necessary policy actions and scores a boundary or gets out on a duck remains to be seen.

THE TELECOM INDUSTRY CRISIS

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The Indian Telecom industry has witnessed a paradigm shift from a voice-centric market to a data-centric market, owing to technological developments, expansion in reach and accessibility, change in user profiles among various factors. As reported by London-based GSM Association, the Indian mobile industry supports about 6.5% of India's GDP. The Indian Telecom industry is the second largest market in the world, witnessing exponential growth over the last few years with a compound annual growth rate of 7.3% over the last decade. It is logical to conclude that a minute change in policy, laws and regulations will also lead to a compounded effect.

The industry surpassed 119 Crore subscribers in September 2018 and then witnessed huge losses in the third quarter of financial year 2019-20 after the Supreme Court of India passed a verdict and upheld the government's methodology of calculating revenue generated by the telecom sector on which licensing fee and spectrum charges are calculated. Huge investments were required to sustain within the industry, which even the big companies such as Tata Tele services and Reliance Communications could not withstand, which has disrupted investment incentivisation in this particular sector. Yet, a few market leaders like Bharti Airtel and Vodafone wavered through this brunt. The possibility that this judgement may have a cascading effect on related industries, including but not limited to internet service providers, satellite communication providers, cable operators, power and steel companies is of major concern to the experts. Staggering investment has further exacerbated its negative impact with little or nothing to invest in exploring new opportunities like 5G, artificial intelligence and the Internet of Things. While Bharti Airtel and Vodafone-Idea urged the government to address these concerns and mitigate their financial burden, the Supreme Court of India rejected the reprieve plea of the telecom companies. Disincentivization of continuing in the industry, amalgamated with high capital requirements required to fulfill the conditions of the verdict would pave way to a cartel-structured market.

The preceding shock to the industry came with the launch of Reliance Jio in September 2016, disrupting the voice-centric market with free data, coupled with affordable and near-free tariffs that reshaped the industry. It saw a shift towards providing more value-added services to the subscribers. Post-Jio, the profits of the market leaders dwindled and instigated cutthroat competition for survival between the telecom service providers.

As of October 2019, the telecom industry in India is dominated by three leaders, namely, Vodafone-Idea, Bharti Airtel and Reliance Jio. The comparison of the telecom market share of 2018 and 2019 is as follows:

Table 1: Comparison of Telecom Market Shares

Operators	Telecom Market Share'18	Telecom Market Share '19	% Change
Airtel	27.40%	29.80%	2.40%
Vodafone Idea	39.00%	29.50%	-9.50%
Jio	17.40%	30.50%	13.10%
BSNL	10.00%	10.10%	0.10%
Others	6.20%	0.10%	-6.10%
Total Base	**100%**	**100%**	**100%**

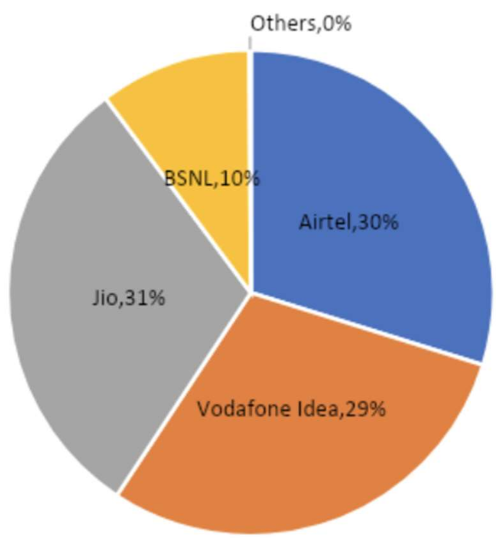

Figure 1: Telecom Market Share '19

(Source of data: Telecom Regulatory Authority of India)

A report by domestic rating company CRISIL states, that from 15 companies in 2012 in the telecom industry, the number has reduced to only 5 which may further reduce down to 3 in the hobbling industry. Further, this reduction in operators and concentration of market in three companies will lead to added pressure on the debt laden telecom incumbents. Such a shift in market structure of the telecom sector will witness effects on investment in related industries, development of new technologies and the GDP growth.

MIGRATION IN ASSAM: ECONOMICS, EMOTIONS AND BEYOND

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For centuries, the issue of migration has had entirely different reactions from the people in Assam than the rest of the country. It started as forced displacement of people from other states into Assam by the British for working on the tea gardens and the wastelands. However, at present, the problem has taken a turn for the worse as illegal immigrants from neighbouring Bangladesh continue to enter Assam threatening the very fabric of the Assamese society – or so it is believed.

According to the Census report of 1911, there were 54,000 immigrants from East Bengal to Assam which over the years increased to 430,000 between 1931 and 1951. It has been estimated that in 1951, total immigrants from East Bengal must have been one-tenth to one-sixth of the population of the state. Currently, there are about 33 million people living in Assam of which, according to the National Register of Citizens, 1.9 million people are illegal immigrants.

The controversial Citizenship Amendment Act (then Citizenship Amendment Bill) that gathered voices of protest across the country, saw resistance in Assam too. But, for different reasons. People feared that the implementation of CAA would lead to an influx of thousands of Hindus from Bangladesh, leading to exploitation of local resources, a threat to the language, culture, tradition of the indigenous communities of the state. Moreover, a form of what Abhijeet Banerjee and Esther Duflo call the 'Napkin Economics' has been floating around among the general Assamese public and media outlets for a while now and it has only intensified the protests.

Simply put, 'Napkin Economics' is the standard textbook explanation of market equilibrium with a downward sloping demand curve and an upward sloping supply curve. When supply increases, price falls. The concept is simple thus, easily understood by the layman. As immigrants enter, there are more people seeking jobs, labor supply increases and wages fall.

The appeal of the concept is immense but at the same time, incomplete. Labor is an unusual commodity. When people migrate across borders and settle in a new place, they do increase the labor supply, but these additional people also spend money. They go to markets, get haircuts, and buy food. This generates job opportunities, mostly for low-skilled people. This tends to increase the wages. The demand curve shifts out as well, compensating for the increase in labour supply thus, leaving wages and unemployment unchanged.

In Assam, immigrants are mostly settled down in places with low native population, for jobs that are not generally taken up by the native population. As for the immigrants from Bangladesh, they usually take up jobs in construction sites, as mechanics, as cleaning ladies or as the daily wage labourer. Of course, things look different in the case of a skilled immigrant.

Across the globe, immigrants almost always face some sort of resistance from the native population. This is perhaps because of the inherent fear shared by the natives that they will take over their jobs, culture and home. When the British encouraged peasants from East Bengal to cultivate the 'wastelands' in Assam in order to increase productivity because the local population was unwilling or when they introduced Bengali as the official language of the state, they may or may not have realised that they were adding fuel to a fire that wouldn't die for centuries.

It is very true that the illegal immigrants are adding pressure on the natural resources of the state by encroaching uninhabited lands on the hills, eventually leading to frequent landslides. The process of NRC was taken up to identify these illegal immigrants. But the process has been faulty at best, rendering 1.9 million people stateless, many of whom claim to be citizens of the country but for a few missing documents required to prove their citizenship. People of the state claim that the influx of illegal immigrants is only increasing by the passing day. Yet, other than the NRC, there is no legitimate data to account for this increasing 'horde' of immigrants from the neighbouring country.

Assam's history with immigrants is complicated and long. A part of the fear of immigrants taking over the state comes from the fact that the native tribes of Tripura have become a minority because of the influx of Bengali speaking migrants, from the present state of Bangladesh, at the time of Independence in 1947. And while the state's resistance to the implementation of CAA is valid, the crippling anxiety of the people that they would be overrun by immigrants is not, it has led to many tragic events like the Bihari Bhagao movement, Nellie massacre and the recent controversy surrounding 'Miya' poetry.

FUTURE OF FEMALE WORKFORCE: MATERNITY POLICIES IN INDIA

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International frameworks, such as the International Covenant on Economic, Social and Cultural Rights recognise the right to access to decent work along with just and favourable conditions for the same. In a male-dominated society where policy, technology and infrastructure are designed by men to cater to the needs of men, it becomes increasingly crucial to take steps towards institutional inclusion, due to the societal position of women.

With the backdrop of India's fast-paced economic growth, the female labor force participation rate was 26.97%, against the world average of 48.47% in 2018. In the same period, a report by the National Sample Survey Organsiation also reflect that the fall in female labour force participation rate was greater in rural areas (67.7% to 58.7%) in comparison to that in urban areas (49.3% to 47.6%).Many factors including, but not limited to the gender wage gap, sexual harassment at workplace and unsafe public places, inaccessibility to equal opportunities for education and employment , large number of women working in the unorganized sector etc, have led to the degradation of women's status in the economic workforce.

It is especially observed that post-marriage pregnancies depress the mothers' employment. With undefined labour policies in India, maternity leaves for employed women have become an issue of contention. For this, we must question the status of benefits given to the female workforce and the impact thereof.

THE MATERNITY BENEFIT ACT (2017)

It is vital to understand how maternity policies in India have been planned to benefit women.

The act has increased the duration of paid maternity leave available for women employees from the existing 12 weeks to 26 weeks. It also makes creche facilities mandatory for every establishment employing 50 or more employees.

According to a report by *TeamLease*, around 12 million women lost their jobs in 2018-19 due to this amendment. In light of this, the amendment is likely to have the following implications.

Besides discriminating against women of child-bearing age, employers hesitate to pay their female workers well, as the same amount of salary would be granted to them even during their maternity leave. Creche facilities and added cost burden on employers (such as compensation for nutritional benefits) mandated by *The Maternity Benefit Act* further reduces preference for female workers. The policy will be more effective and in favor of women, with private sector incentivisation with the government allocating funds to finance paid maternity leave. Incentivisation, financing and an implementation strategy needs to be worked out which will relieve the employers of the cost burden.

Maternity leave further reinforces gender stereotypes and places the onus of child rearing solely on women since it fails to recognise fathers' role in child rearing and the additional needs of employed fathers.

According to data on the Indian workforce, 27% women join the workforce, while 48% drop out within four months of returning from maternity leave. The 26 weeks long leave, and other benefits must be sensitive towards the common responsibility shared by parents, irrespective of gender or other determinants. This encourages involvement of fathers in the child rearing process and enables women to get back to work after a reasonable period of time. Sweden, Norway and Finland are some countries that have been successful in preventing their female workers from dropping out of the workforce after the maternity leave, and also eliminate employers' bias during recruitment, thereby saving millions of jobs.

Conditions marking eligibility for provision of the Maternity Benefit Act, such as 80 days of prior work with the given company, implies exclusion of women belonging to the informal sector from under the purview of the act. Reasons for this are the seasonal nature of their work, limited period of contracts and unaccountability of the employers (for example, in the case of agricultural laborers, domestic help, construction workers etc). Government officials need to be responsible and allocate appropriate amounts of funds to organizations supervising maternity benefits and additional needs in the informal sector, and a central authority should overlook the effectiveness of these legislations and ensure that all women have access to the same. With the 'right' being in place, the government is obligated to ensure that it is reaching the targeted beneficiaries.

Against this backdrop, India's bold Maternity Bill of 2017 can attain success by addressing its current limitations and directing action towards the intersection of employers, women and civil society. Thus, the onus remains on the government whether to make the bill a game changer for equitable gender relations or another attempt in complicating the role of women across different sectors of employment.

EQUITY AND TARGET EFFECTIVENESS: CHALLENGES FOR HEALTH INSURANCE IN INDIA

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The starkest of inequalities exist in health financing – more than three fifths of expenditure on health is paid for by individual households in India. India spends around 4-5% of its GDP on health, but out-of-pocket expenditure accounts for 65 per cent. The burden of health costs is clearly borne by people themselves. It is, therefore, unsurprising that health expenditures account for more than half of Indian households falling into poverty, with about 39 million people being pushed into poverty every year.

Health insurance schemes in India are envisaged as a step towards ensuring Universal Health Coverage to its people. These schemes typically provide insurance at low rates or free of cost to vulnerable and marginalised sections of the population. The Pradhan Mantri Jan Arogya Yojana (PMJAY), is the most recent such effort. The scheme aims to protect beneficiaries from catastrophic health expenditure and financial liabilities arising from health shocks by providing an annual coverage of Rs 5,00,000 to poor and deprived families.

While policymakers across the country have launched several schemes at the union and state level, inequalities in access to healthcare and health outcomes in India continue to persist. These inequalities manifest across caste, gender, income and wealth, education, and region. The question is, can PMJAY improve access to healthcare or will equity continue to be a far-fetched dream?

The result of low spending by the government is a dismal public health system with poor resources, limited accessibility, and weak implementation. A dearth of quality government healthcare facilities is a hindrance for those who cannot afford private healthcare.

Physical access is a major barrier to health services and is a factor responsible for poor health in rural and remote areas. As per the National Family Health Survey 2015-16 (NFHS-4), 45 per cent households do not use a government health facility due to the absence of a nearby facility. PMJAY does not cover transportation costs and hence, insurees are likely to prefer private health facilities despite the fact that treatment is almost 4 times more costly in private institutions than public institutions.

Another major problem with PMJAY is in its design and compartmentalised focus on hospitalisation expenses in secondary and tertiary care. Outpatient expenses and drug expenses are not covered and hence the scheme has little impact on out of pocket health expenditure. Chronically ill people are often forced to discontinue treatment due to the financial burden that cost of medicines and follow-up treatment pose.

Due to these reasons, studies have shown no difference between insured and uninsured households in terms of out of pocket expenditure or impoverishment due to out-spending. Health outcomes for the poor and underprivileged haven’t improved either.

Under Rashtriya Swasthya Bima Yojana (RSBY), a health insurance scheme launched in 2008, beneficiaries were enrolled on a piece rate basis i.e.

insurance companies were paid a certain amount of premium for every person enrolled and thus there was no incentive for insurance companies to focus on the quality of enrolment. Their only concern was the number of households enrolled for greater premium earnings which is why the scheme failed to provide coverage to the targeted poor. Ghosh and Gupta in their study in 2017 found that only 12.7% of their sample's poorest quintile received RSBY coverage and 36.52% of households enrolled belonged to the richest 40% of the sample. Only 11% of target households were enrolled in 2014 with 3/5 of BPL families yet to be covered. This points at the target ineffectiveness of RSBY and its failure to provide insurance coverage to the poor.

The study also pointed out low enrolment among SCs and STs under RSBY. This can be attributed to the high cost of enrolment operations in remote, inaccessible areas where a substantial portion of the community resides. Such exclusion of disadvantaged from schemes targeted towards them is why there has been no substantial improvement in their health outcomes over the years.

MISTARGETING BASED ON THE SECC

Under PMJAY beneficiaries are identified through the Socio-Economic Caste Census (SECC) Database. However, the SECC is plagued with inclusion and exclusion errors. These errors that include the non-poor in the poor category and shift the poor to the non-poor category have resulted in target ineffectiveness of health insurance schemes in the past and is likely to continue under PMJAY as well due to shortcomings in the SECC Database.

PMJAY automatically includes those who are destitute, manual scavengers, tribal groups, and legally released bonded labour. PMJAY also has six deprivation criteria to be used to include households, namely households with only one room, *kutcha* walls and kutcha roof (D1), No adult member between the ages of 16 and 59 (D2), Female headed households with no adult male member between 16 and 59 (D3), Households with no able bodied adult member (D4), SC/ST households (D5), and Landless households deriving a major part of their income from manual casual labour (D6).

The problem with this methodology is in its binary and myopic approach. For example, even though adivasi households are among the most disadvantaged, many possess a little bit of land, dry and often unproductive, a mud house with at least two rooms, and are unlikely not to have an able-bodied male adult aged between 16 and 59 years. The housing indicator is also not very appropriate because in rural India many nuclear families occupy a single dwelling – and therefore having more rooms may not reflect greater prosperity.

There is gross under-enumeration of the poorest households under SECC. While Census 2011 reports 66 million households living in one room, SECC has identified 23.7 million. Furthermore, the Socio-Economic Caste Census was conducted in 2011 and will suffer from gaps owing to births, deaths, and migration.

While the government has recognised these challenges and aims to make the scheme more inclusive and available to all eligible beneficiaries, how it plans to go about achieving this is still very unclear. Increasing public expenditure on health and revamping the existing public healthcare system along with a more robust mechanism to identify the poor and deprived in India is needed to address concerns of equity and access to healthcare in India.

THE ECONOMIC IMPACT OF PANDEMICS AND EPIDEMICS

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History is evidence to the fact that the human civilization is no stranger to diseases. Deadly infections since time immemorial are known to have altered the image of society by giving rise to economic paralysis, changing demographics, mass migrations and political conflicts. Despite significant medical progress over the course of becoming a modern globalised world, we continue to fight both old (such as the plague) and new pathogens (such as the HIV virus) which pose a grave, unprecedented threat to mankind and to the global economy.

Analysing the overall economic impact of such phenomena would require at first an assessment at the microeconomic level (i.e. households and firms) which may assist an economist in understanding its distributional impact within the economy. An epidemic may result in the rising mortality of the heads of households, leading to a direct reduction in labour productivity and to losses of income and output. In time, this may also lead to reductions in savings and systemic "disinvestments" in human capital, for instance education for children and the loss of productive assets such as housing. Fear of infection can also result in social distancing and closed enterprises, commercial establishments, transportation, and public services—all of which disrupts economic and other socially valuable activities.

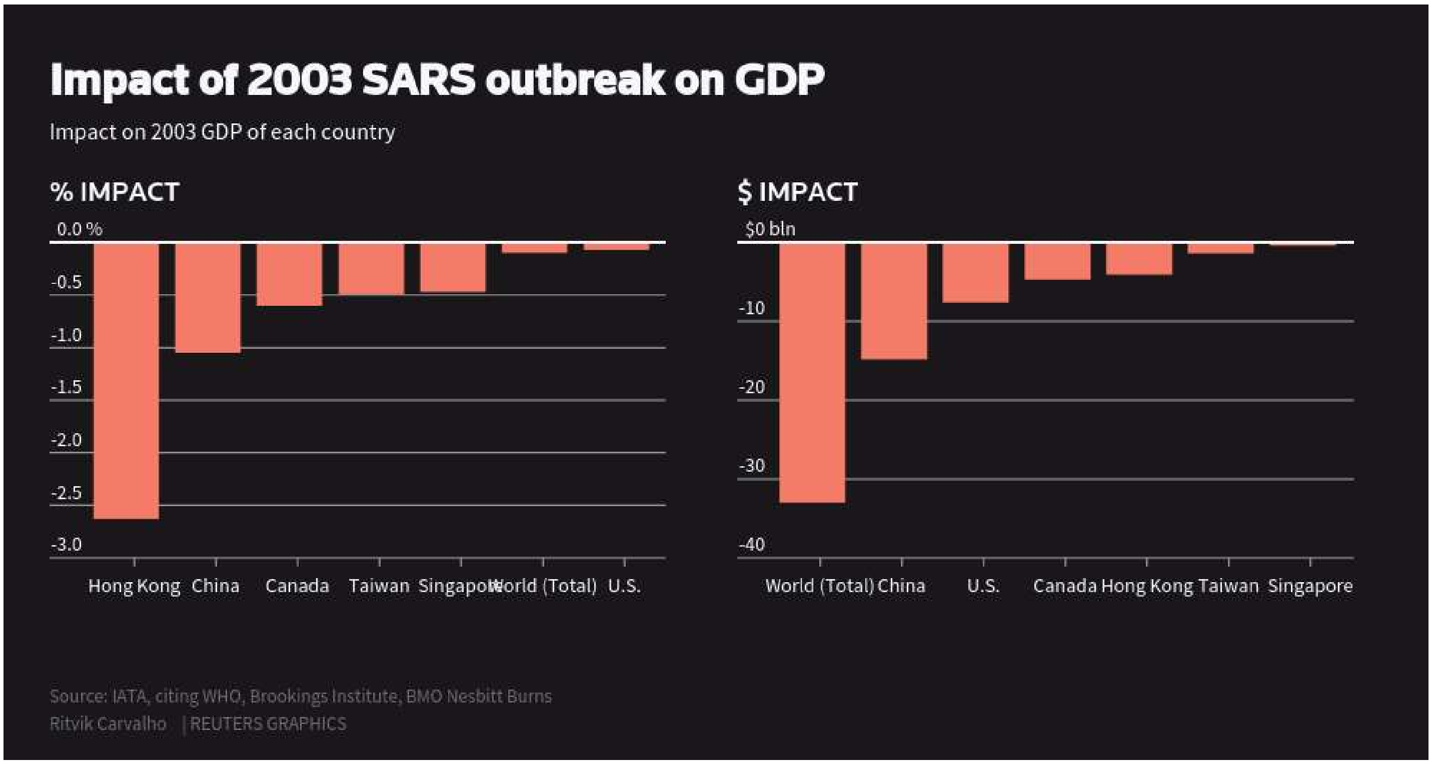
At an aggregate level, macroeconomic analysis captures the implications for several sectors of an economy namely health, transport, agriculture and tourism. One of the sectors impacted greatly by an epidemic is healthcare which faces enormous costs in terms of medical treatment and outbreak prevention. The disease may even lead to a shortage of hospital beds and medical workforce. For instance, the Ebola Crisis (2013-2015) led to a workforce decline by 10-20% in African countries. This loss led to deaths of over 10,000 people due to untreated conditions while childhood deaths due to measles and other preventable diseases increased as the vaccination coverage reduced by 30%.

Transport and tourism also undergo several obstacles in face of an epidemic as travel advisory's and logistical restrictions are put in force in order to curb spread. For instance, during the 2003 SARS outbreak, Asia-Pacific carriers saw a US $6 billion loss in revenue and in South Korea, where an introduction of MERS caused a brief 2015 outbreak, the number of international visitors dropped by 41%. It was also estimated that the H1N1 outbreak in the US, led to immense political and economic backlash and a loss of 50-60% of the total revenue.

Since over 60% of all human infectious pathogens originate from animals, agricultural sectors involved in zoonotic outbreaks suffer significant losses. After Saudi Arabia and Yemen suffered an introduction of Rift Valley fever virus, Arabian countries banned the imports of live animals from at least nine African countries, causing a loss of over 75% in exports. This caused social and financial instability, loss of livelihoods and food security, and ultimately instability of the Somalian government, with a 25–36% reduction in the GDP.

In the 21st century, a local phenomenon may even be translated into a global outbreak, owing to factors such as interconnectedness, urbanisation and climate change and may break down existing supply chains and trade networks. For example, a ban imposed by the EU on exports of British beef lasted 10 years following identification of a mad cow disease outbreak in the United Kingdom. Some long-running epidemics, such as HIV and malaria, deter foreign direct investment as well.

As a whole, the economic losses incurred due to outbreaks are not trivial. A study recently estimated that pandemic disease events would cost the global economy over \$6 trillion in the 21st century - over \$60 billion per year. Taking the case of the 2003 SARS outbreak, the global loss was approximately \$40 billion, leading the world GDP to suffer a loss of 0.1% (see fig. below)



The impact of the resulting financial catastrophe is disproportionate and may vary in its intensity across industries and income groups. While health insurance and life insurance companies tend to face great economic burden, some others such as pharmaceuticals are potential beneficiaries, at least in the short run. Vulnerable populations, particularly the poor may also be unable to bear the brunt of the outbreak having lesser savings and inaccessibility to adequate medical facilities.

As such outbreaks threaten to bring the global economy to a standstill, it is up to the policymakers to strike a balance between swift decisions and guarding against the undue haste. Presenting facts in a clear and measured manner, having the patience not to begin drug treatment programs until correct adherence, a well thought out plan for economic stimulus and its proper implementation can help contain both the health and economic impacts of an epidemic.

E-COMMERCE IN INDIA AND BOOM DUE TO CORONAVIRUS OUTBREAK

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In India, the concept of e-commerce formally came into existence around the year 1991 with the advent of the internet for commercial use. However, early on, majority saw the internet as a luxury that they did not require and therefore could not fathom the possibilities that it could open up. A large number of Indians were exposed to the field of E-commerce for the first time when IRCTC introduced Online Passenger Reservation System. After the unprecedented success in railways, many airline companies like Air Deccan, Spicejet opted for a similar online ticket booking system. Airlines encouraged web bookings to do away with the commissions given to the agents. Hence, gradually people started to realize the ease e-commerce had brought in their lives. There were no long queues for ticket bookings, no shoe-leather costs of visiting the agents, to say a few. Thus, that's how e-commerce initially made its way into the Indian market.

Coming up of Flipkart in 2007 was another catalyst for the industry. In a way, it revamped online shopping. Over the years, companies like Amazon, Jabong made their way into the Indian market. However, in recent years, there has been an exponential growth in the industry. The key drivers of growth in the Indian E-commerce market have been - penetration of internet services even in the interior parts of the country, rising living standards, ease of buying products in a busy lifestyle, greater expenditure on advertisements, wide variety of products and evolution of the online marketplace. Today, companies like Amazon India, Flipkart, Paytm have made it to the list of top 10 e-commerce companies in India with Amazon India at the top.

According to Google India, there were 35 million online shoppers in India in 2014 Q1. The industry is following an upward growth trajectory as India's E-commerce revenue is expected to jump from US$ 39 billion in 2017 to US$ 120 billion in 2020, growing at an annual rate of 51 percent, among the highest in the world.

Apart from the expected boost, the novel coronavirus outset in the world has come as a boon for e-commerce companies. As more and more people are avoiding visiting malls, supermarkets, and are resorting to isolation, there has been a preference for buying things online, especially groceries, vegetables, and other essential items. In an environment of widespread fear and panic, an increasing number of employees are working from home, and thus, these firms are doubling down to bring convenience to the consumers and win their trust.

"We have seen a clear uptick in orders, which have grown by 20-30 percent compared to last month, and it is picking up pace as more people decide to order online. It is partly driven by new customers who are ordering online as they avoid going to the (physical) stores. Besides, some existing customers are stocking up many more products over fears of things running out," said Vipul Parekh, co-founder of BigBasket, one of the largest online and food grocery stores.

While keeping up with the sudden increase in demand, the companies are taking steps to ensure the health of their staff and the customers. For example, Bigbasket has taken initiatives to monitor the body temperatures of all the delivery executives before and after they deliver products. Besides, all the employees wear masks and gloves and are wiping the crates regularly.

According to experts, a similar pattern of growth in e-commerce has been experienced in countries like the US, China where a large percentage of the population is relying on internet services to get their daily supplies. The rationale behind the same lies in the hardships the pandemic has brought in the lives of people. As the curve is not flattening and people are isolating themselves, e-commerce through its various domains remains the only platform for not only fulfilling requirements but also social interaction.

E-commerce firms are putting in extra efforts to monitor their supply-chain and delivery networks to meet the ever-increasing demand. Although the outbreak is likely to have adverse impacts on ride-hailing and online food ordering segments, it can be a golden opportunity for the E-commerce industry to build its customer base. Also, if there is an increase in the lockdown, say, at regional, state or national level, then, the E-commerce giants can cooperate with the government to provide essential services to the people. Therefore, on the one hand, where coronavirus would seemingly spell doom for lakhs of people worldwide, it might act as the harbinger of prosperity for the Indian and the global e-commerce industry but at a great cost.

SURVEILLANCE CAPITALISM—VENERABLE OR VENOMOUS?

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"In disposing of a man's labour-power, the system would, incidentally, dispose of the physical, psychological, and moral entity of "man" attached to the tag. Robbed of the protective covering of cultural institutions, human beings would perish from the effects of social exposure; they would die as the victims of acute social dislocation through vice, perversion, crime, and starvation."

While Polanyi might have put forth a petrified expression when it comes to comprehending how exogenous attributes such as labour were commoditized to fulfil the needs of the market, the modern world has witnessed itself getting plagued by yet another phenomenon—surveillance capitalism.

There has been a remarkable shift in market paradigms when it comes to the intricate concoction of technology and business models. The antecedents of business models on human behaviour and its marketability are mostly the ones concerning the core sense of 'labour' understanding how intangible attributes such as 'efficiency of labour' have been placed forth into mainstream marketing. Surveillance capitalism is another such transitional (yet focal) point.

Surveillance capitalism refers to the capitalization upon behavioural profiling accumulated in the online marketplace by those capitalists who heavily invest in the development of surveillance technologies. This phenomenon not only helps to understand consumer preferences but also to alter consumer behaviour in a manner most beneficial to an enterprise.

Shoshana Zuboff, in her book "The Age of Surveillance Capitalism," has accurately analysed the modern-day assessment of markets and assets, and, has proved that the most marketable asset that will shape the future of business models is confined within humans themselves—their behaviour—which forms the foundations of 'behavioural markets', which is an integral facet of surveillance capitalism.

As one might speculate, technology is supposed to serve humans, in moderation, to ameliorate one's sense of 'convenne'.While technology correctly provides a great deal of convenience, Zuboff claims that it is at the cost of violation of one of the most integral aspects of humankind, especially in a technology-ridden world—their privacy. Zuboff states that the aperture between the idea of technology 'serving' humans and its moderation has led to corporations to not exploit humans by the means of commodification of personal (or 'behavioural') data, that encroaches upon their privacy hereby making one lose their sense of autonomy.

CASE IN POINT—CAMBRIDGE ANALYTICA DYSTOPIA

It is impossible to use social media platforms like Facebook without being aware of the ominous name of Aleksandr Kogan, or Dr Specter, for the uninitiated. The 2014 Cambridge Analytica scandal is yet another evidence of surveillance capitalism being used in malicious ways. When Aleksandr Kogan and a few other data scientists put forth the idea of 'This Is Your Digital Life', an app that would serve as a personality test of sorts, very few could fathom its malicious intent. It was believed that the said personality test was a medium that leveraged personal information to malign political results at the precedent of the Trump elections. It is believed that the aforementioned medium was used to access the information of over 80 million American citizens, albeit the degree of extraction and subsequent 'utilization' is ambiguous.

There was an air of doubt regarding the collusion of Cambridge Analytica, the Canadian data analysis, Russian agents and of course, the Trump administration; and even though this is still a matter of dispute or debate, it reflects upon the idea of surveillance capitalism as a debacle when it comes to marketing solutions or conveniences.

We celebrate the networked world for the many ways in which it enriches our capabilities and prospects, but it has given rise to completely new territories of anxiety, danger and violence as the sense of certainty about the future slips away.

ARE INTERNET SHUTDOWNS WORTH THE ECONOMIC COSTS?

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Since 2011 internet shutdowns have become a broadly accepted tool by political authorities all over the world. In 2019 alone, 253 documented shutdowns occurred, and a recent trend of sustained and prolonged shutdowns is materializing. While they are issued under the pretense of controlling civil unrest, they represent a radical form of digital repression- one that curbs several rights while depleting economies at local and national levels. It is dubious whether they help in maintaining law and order.

An internet shutdown is an intentional disruption of internet or electronic communications, rendering internet services inaccessible or effectively unusable, for a specific population or within a location, usually to exert control over the flow of information. Unlike technical failures, governments mandate these shutdowns at various levels as reactive or preventive measures against real or exaggerated threats. Accompanying the growth in connectivity and expansion of digital communication infrastructure, network disruptions have likewise increased in the past decade. India itself has risen in the number of shutdowns from 6 shutdowns in 2014, to 79 in 2017, 134 in 2018 and 106 in 2019. A report, 'Global Cost of Internet Shutdowns' claimed that India was the third-most economically affected country, after Iraq and Sudan, accounting for over 100 shutdowns. The report further said that internet shutdowns lasted 4,196 hours in 2019 costing $1.3 billion. Thus, it becomes incumbent to ask, when, if at all, Internet shutdowns are a valid response to protests.

The UN declared the 'internet' as a fundamental right in 2016, but the cases of shutdowns have particularly increased. Internet shutdowns when in place, violate the right to freedom of expression. They coincide with several other violations like curbing economic rights and restrictions on the freedom of the press. These shutdowns are more common in developing and non-democratic countries where legal provisions against such shutdowns are undefined or ambiguous. But there has been a shift in their usage with large democracies like India and Brazil topping the list and mature democracies like Poland now laying down ‘shutdown laws’. This reveals this tool is used not solely by authoritarian and non-democratic regimes.

While governments report several justifications for shutdowns like maintenance of law and order situation, fighting fake news, etc, but, reports by civilians and other observers have cited very different reasons. These tools have been used to prevent the flow of information and curb public speech in regions like Jammu and Kashmir, Myanmar, etc. Across different stakeholders, the reaction to internet shutdowns has been mixed; governments and administrative authorities have shown preference for such measures, but large sections of the public have shared their dissatisfaction with these untimely and excessive measures. Economically these are known to damage the financial ecosystem and local economy of their impact zone.

ECONOMIC AND WELFARE IMPACT OF SHUTDOWNS

Internet shutdowns infringe on the right to equality and are a form of digital discrimination that disproportionately affects marginalized groups. They constitute collective punishment as seen in Ethiopia (2016) during the Oromia protests. They also provide an invisibility cloak for violence and violation of human rights and laws of war as seen in the case of the Syrian conflict. The dependence on the internet is increasing steadily with students using it for education, and many government programs like public distribution systems and management of ration shops rely on Direct Benefit Transfers (DBTs) and UPI. Thus, in the absence of the internet, many welfare and development institutions fail to function. A report by Deloitte estimates a daily loss of 0.4-2% of GDP for each day of a shutdown (The economic impact of disruptions to Internet connectivity, Facebook, October 2016).

After the 2016 move of demonetization, many transactions have been digitized. According to a report by BCG, the total number of payments made through digital instruments is likely to be $500 billion by 2020. While India strives to move towards a digital economy, internet shutdowns prove to be lapses in this action. They create a climate of uncertainty for international investments and hamper millions of digital transactions daily. Most shutdowns happen arbitrarily and without proper notification or information, thus, firms and laborers are unable to prepare for them or mitigate the losses.

In 2016, Global Network Initiative, released a study wherein the impact of full internet shutdowns was estimated by the level of connectivity. Under the framework, each day a high connectivity area loses $23.6 million per ten million people; modern connectivity areas lose $6.6 million and low connectivity areas lose $0.6 million. India's internet economy is deemed to touch $250 billion in 2020, thus, this potential remains underutilized in the face of constant disruption.

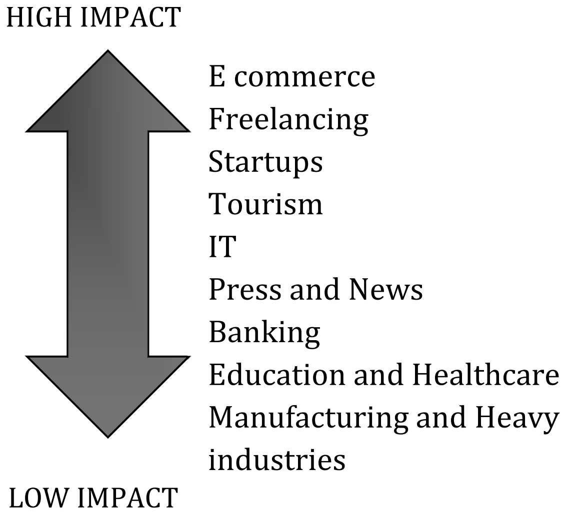
Internet shutdowns affect not only formal but informal sectors as well. Their effect is noted to be regressive, harming smaller businesses much more than larger ones. Smaller vendors perish due to lack of resilience and recovery owing to limited assets and smaller outreach.

SECTOR-WISE EFFECT

Considering the cases of Jammu and Kashmir, Darjeeling and Rajasthan, the impact on the tourism industry has been severe. Tourism firms for example, hotels, travel guides, car rentals, and sightseeing saw a fall in the number of tourists due to a decrease in outreach and breakdown of digital bookings, payments mechanisms. Many expansion and growth plans were postponed, and foreign investment saw a fall.

India's E-commerce industry is predicted to touch $120 billion in 2020. The losses in E-commerce were reported at 6.31$ million per day in 2019. Indian's dependence on E-commerce is relatively low, hence the impact was fairly contained. The demand and supply both depend on the internet in case of such industries. Restaurants have witnessed increased dependence on online orders, several eateries in Delhi saw a fall of orders by 40%-50% during the shutdown in 2019, post the violence at Jamia Millia Islamia. Similarly, local producers lose out due to lapses in supply chains.

The Telecom industry has faced the brunt of these shutdowns. The average data consumption saw usage reduction of upto 30-40%. The sector also suffers from underutilized capacity. The impact on the banking sector is minimal as they run on privately leased lines instead of public network facilities. However online transactions saw a huge dip due to these shutdowns. During a shutdown in Gujarat 2015, $225 million mobile transactions were frozen across the state.



POLICY ALTERNATIVES

The foremost policy measure to solve this problem is to limit the number of shutdowns to only those situations where essential and to do away with shutdowns in the long run. Indiscriminate shutdowns have high social and economic costs and are often ineffective. The actual benefit of shutdowns is debatable as the effect is limited to public gatherings and broadcasts. However, groups taking to terrorism or other forms of truculence seldom use internet technologies to carry out operations. Thus, states do not have much to gain by these shutdowns beyond curbing civil unrest for short durations.

Certain measures can be undertaken to reduce the impact of these shutdowns in the long run.

1. **Building flexible infrastructure**: While the world moves toward digitization, all infrastructure and equipment are severely dependent on optical cables. Thus, in areas where shutdowns have been foreseen, investment in alternative infrastructure can be done to minimize impacts on businesses. This can be by long term fixed structure changes or short-term providers like mobile ATMs for places seeing increased currency demand due to fall of digital transactions, sustenance of supply chains of local traders and utilization of E-Commerce resources over other network channels.

2. **Using the internet to tackle the unrest**: Independent fact-checking, preventing the circulation of inflammatory messages, or containing rumour mongering can prevent misuse. Investment in better cyber forensic capabilities, campaigns to target disinformation can be fruitful. The internet itself can be used as a medium to pacify the tensions and provide a view into the actual point of contention between various groups.

3. **Promotion of counter speech**: When the unrest is against the state, counter speech, and actual redressal of the problem of hand is the solution. Cutting off communication channels only worsens the problem, lessens accountability, and leads to mistrust. Proper communication and at times dialogue between all stakeholders is essential, without which democratic structures fail to exist.

4. **Building corporate accountability**: IT, Telecom, E-Commerce, and other sectors face a huge brunt of these shutdowns hence, it becomes essential for these stakeholders to hold the administration to some standards. In several instances, it has been reported that notifications for shutdowns are received well after they are implemented, and a lack of proper documentation and reasoning exists. Several organizations like RDRCAI work towards the creation of standards and pressing for proper protocol implementation for these shutdowns so that losses can be abbreviated.

5. **Understanding key reasons for shutdowns**: Blanket bans are often a reason for weakness in law enforcement agencies, due to which speculative measures like this must be undertaken. Therefore, redressal of these institutions can help in creating an atmosphere wherein internet shutdowns are last resorts.

CONCLUSION

Internet shutdowns are a policy concern by the sheer magnitude of costs suffered due to them and the question of civil liberties in a democratic state. Before decisions for further shutdowns, it is essential to conduct a proportionality and necessity test. There is the heterogeneity of impact and sentiment by location, nonetheless, there have been grave impacts, thus, it is essential to move towards less intrusive and more effective alternatives. If internet shutdowns are to continue in the future; these costs must be taken into consideration before taking a shutdown decision. Democratic governments should provide adequate reasoning and rationale to prevent these shutdowns from becoming a common and misused occurrence.

Apart from eliminating internet shutdowns, several smaller policy measures can be undertaken to blunt the impact of these shutdowns on local and national economies. If states continue to use blockades like these, the full potential of digital economies will go unrealized.