

# COVID-19 Pandemic as a Set of Economic Shocks in India: A Short Note

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## ABSTRACT

Socio-economic events that fall largely outside the purview of the direct control of a given economic agent allow much more rigorous quantitative modelling of effects that such events may have on that economic agent's decision-making and the consequent economic outcomes. The on-going Corona pandemic across the Globe presents a unique case study to extract operationally exogenous shocks that can be subjected to further rigorous research as well as to help students learn about applied economics using real-time events rather than abstract theoretical generalizations. This pandemic has thrown a huge challenge for the largest democracy in the World, namely India. The subsequent series of lockdowns in India and the consequent unlocking process have given rise to several economic shocks that require urgent attention from both the academic and policy-making circles. An overview of the microeconomic and macroeconomic events that have been sparked by the current pandemic and, the several rounds of lockdowns and social unlocking, can help the policy makers to better understand how future policy interventions can improve economic outcomes in the post-COVID era. A brief overview of various such economic shocks and their implications are highlighted in this note. The aim is to highlight the most important economic concerns so as to motivate teaching and research that is driven by real-time concerns and that can shed more light on the ways in which people and institutions react to such a crisis with some indications on the possible road ahead.

## Highlights

- COVID-19 pandemic is translated into its microeconomic and macroeconomic implications using the largest democracy in the World as an analytical case study.

**Keywords:** Microeconomic shocks, macroeconomic shocks, natural experiments, natural shocks, corona pandemic

Exogenous variations in society and economy in the form of unpredictable natural or human-induced events provide a rich source of information for Economists and other social scientists in meaningfully analyzing the cause-and-effect relationships among various socio-economic phenomena. Analysis of socio-economic events that fall largely outside the purview of the direct control of a given economic agent allows much more rigorous quantitative modelling of effects that such events may have on that economic agent's decision-making and the consequent economic

outcomes (Francesco, 2005). The on-going Corona pandemic across the world can provide important opportunities to Economists in studying the behavioural dynamics across economic agents in the light of this crisis, and may possibly help to better understand how government intervention can or cannot improve economic outcomes if events of similar nature occur in future.

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## Theoretical Background

The genesis of such an approach to causal analysis in economics can be traced back to various seminal works, especially in the field of Behavioural and Experimental Economics, that attempted to examine the ways in which people and institutions react to events that were not optimally forecasted by them well-in-advance. Such events have been characterized by various synonyms such as “natural experiments” (Rosenzweig and Wolpin, 2000) and “exogenous shocks” (Francesco, 2005) among others. Generating such situations in the economic realm is quite difficult and even costly. Moreover, ethical considerations also make “creating” such events unrealistic and unacceptable. However, when natural events such as calamities occur, or when events occur that are not natural but are also not under direct control and foresight of a given country, its people and institutions, the variations in observed behaviour before and after such events can provide significant insights into underlying microeconomic and macroeconomic processes. Such an understanding may help policy-makers and analysts to better appreciate the existing socio-economic outcomes in a much more scientifically rigorous manner. The on-going Corona pandemic in India is one possible source to extract truly exogenous variations in various economic forces that govern both the individual and the institutional behaviours.

Indian society is experiencing the impact of this pandemic on multiple fronts. From a sudden overhaul of the healthcare system to the massive inter-state migration of wage-workers, the Corona pandemic has opened up a Pandora’s box for Economists to better understand various socio-economic issues such as health outcomes, labour market outcomes, distributional inefficiencies, shock absorption capacities of various industries, and the nature of inter-state dependencies among others. Careful examinations of the events that have occurred in the last four months provide a set of economic shocks whose impact must be urgently evaluated so as to minimize the hardships that the post-pandemic normalcy might bring for the common masses. Several important events within the corona pandemic can be located that may serve as possible exogenous economic shocks for Economists and thus help both analysts and policy-makers to

better understand the behavioural dynamics of individuals, institutions, the Government and their cross-interactions across the Globe.

## Major Economic Shocks Due to COVID-19 in India

This section extracts the main subject matter of this analysis. The shocks faced by the Global and Indian economies are conceptualized in their microeconomic and macroeconomic dimensions. The attempt is to derive truly exogenous shocks pertaining to the rural, urban and the aggregate sectors of the Indian economy that can readily service as a rich case study for the Global community and policy makers.

### *Microeconomic shocks*

Events that can be considered as sudden and unexpected for individuals, firms, industry or a particular sector are highlighted in this section. These economic shocks are highlighted with an emphasis on lending them meaningful to researchers in Economics and other allied social sciences.

### *Upward shift in the healthcare demand function*

Indian healthcare system is dominated by state-owned suppliers, especially in the rural regions. The Government thus plays a pivotal role in improving the health outcomes of the Indian rural population. Given the general agricultural dependency and low income and productivity levels in rural sectors, the purchasing power required to afford basic healthcare facilities is limited in rural India. Thus, the Government needs to supplement this limitedness of purchasing ability with subsidized healthcare services. The current COVID-19 pandemic has resulted in a sudden increase in healthcare demand and it seems that the healthcare demand function may have shifted sizeably so as to put further stress on the already-scarce supply of health facilities in rural and even in several urban regions. An important issue that needs to be studied is how well our rural health infrastructure is prepared to handle a sudden demand-side shock and the factors that may improve our healthcare system’s ability to provide quality and subsidized healthcare facilities if similar events occur in future.

### *Rise in the urban to rural push-migration*

The ongoing pandemic saw massive inter-state push migration. It occurred with migrant wage-labourers shifting from urban regions toward rural regions. The initial twenty-one days lockdown announced by the Government of India saw a large number of urban migrant workers rushing to their villages at a scale that has hardly been observed in the recent past in India. Several research issues open up. Among others, estimation of the extent of this labour migration in terms of the socio-economic composition of migrant workers can serve as a valuable data set in itself. Another research issue in this context can be the quantitative estimates of labour-dependency of various formal and informal industries in urban India. The extent to which various industries in urban regions rely on quick and efficient supply of wage-workers is an important determinant of the supply-side efficiency of these industries and, their ability to efficiently and quickly match the demand and supply of goods. Estimation of labour supply-elasticities of output for such industries, among other possible matters, can be valuable for policy-makers in understanding the nature of the labour markets in urban regions across both formal and informal industries.

### *Downward shift in the wage-labour supply function in urban regions*

A sizeable supply-side shock has been faced by the Urban informal and labour-intensive formal industries due to the massive inter-state migration on the one hand, and the continued production activities in the initial phases of the lockdown. Several industries were seen searching for wage-labour while continuing the production of essential goods. Some industries employed innovative solutions such as hiring migrant labourers who were stuck within their areas of production (Indian Express, 2020). These events provide a rich source for studying the impact of sudden unpredicted labour supply shock on production and distribution decisions of urban industries affected by these events.

### *Sudden fall in the incomes of daily-earners and its welfare impact*

The sub-section of our society that has probably faced the most damaging impact of this pandemic is the daily-wage earners. Given their already

uncertain labour market participation, the sudden halt of production in labour-intensive industries has and will have sizeable impact on their health, income and other outcomes. The ways in which the sudden halt in daily income will impact their consumption and savings behaviour must be urgently undertaken as soon as the ongoing situation normalizes. With high price-elasticities for consumption goods, the nature of substitution among basic necessities, the dependency on the Government for meeting basic needs and the ways in which households of such labourers share the burden of the fall in incomes can give critical data to the policy-makers in designing more efficient welfare schemes.

### *Intra-household conflicts and power distribution*

Considerable literature on institutional economics has delved deeply into the ways in which households undertake sharing of scarce resources among the members of the family with special reference to the conflicts that may arise in designing efficient distribution designs. The fact that a large proportion of workforce is now working from home, implies increased time spent by spouses and other family members together within the household. News reports do show that reported domestic violence cases have increased during this lockdown (Outlook India, 2020). The nature of adjustment processes adopted by the key decision-makers in the household during the lockdown period, the changes that might have occurred in the allocation of key rights to make decisions inside the household, the possible tensions in managing the family budget and consumption in the light of spouses being together and a host of such issues can be analyzed to gain insights into the social fabric governing the microeconomics of households in India. This can be done with reference to both the urban and rural households and the differences in their reactions to the lockdown situation can be a source of valuable data on gender equality, gender empowerment and the reaction functions of urban versus rural households to the current crisis.

### *Cooperation mechanisms in various communities*

Societies and colonies where people reside together in clusters such as a housing society, adopted

innovative mechanisms for handling the lockdown situation through different ways of cooperating and fulfilling their collective needs. While in some places, the representative of a typical housing society took into their hands the strict maintenance of social distancing, other places such as Gujarat saw people arranging for vegetables and other daily necessities via their local municipal corporations. Knowledge of local cooperation mechanisms among people in times of emergency can help municipal corporations in exploiting the self-governance model to implement important local laws once the situation normalizes. Municipal and other local governance bodies can utilize the data on how people cooperate in housing societies to utilize such mechanisms in enforcing important social changes such as spreading eco-friendly waste disposal practices among households.

### *Macroeconomic Shocks*

While the above mentioned issues provide ideas for possible microeconomic research agenda, several issues have emerged that demand aggregative analysis and hence can be better subjected to macroeconomic analytical frameworks. Some of the most important issues in economic policy-making are essentially macroeconomic in nature such as unemployment, inflation and stable growth. Many macroeconomic aspects of the Indian economy are undergoing radical changes on account of both the Corona pandemic and the consequent lockdown. Some of these possible issues have been mentioned below.

### *Aggregate labour market adjustments*

The lockdown period is an important source for studying the aggregate adjustment capabilities of the informal Indian labour market in the light of various industry and sector specific shocks as highlighted previously. Mainstream neo-classical labour market models suggest that adjustments to any exogenous economic shock should be quick and efficient given the free movement of labour and other resources across space. In the light of barriers to this free spatial movement of resources due to the lockdown, a detailed study of the ways in which various regional and sectoral labour markets have adjusted their labour demand functions to suit the increased scarcity of wage-labourers can

go a long way in helping the policy-makers devise more efficient industrial policies while also helping them design more effective welfare schemes for the urban migrant labourers. Not only does this have implications for the welfare of labourers in rural and agricultural regions of India, but it also has larger ramifications on account of the inter-linked nature of the land, labour, credit, and product markets (Singh and Kaur, 2020)

### *Downward shift in the aggregate supply*

The sudden collapse of the aggregate supply in India will go a long way in accentuating the recessionary momentum already built before the Corona pandemic. With aggregate demand being weak, the clearance of stocks already produced and built-up in the inventories of firms stands as a challenge for the captains of the industries whose production is most hit by the lockdowns. The Government has rightly come out with appropriate stimulus packages to boost the ailing aggregate demand. However, lags in the aggregate supply-demand adjustment process on account of different temporal reactions of aggregate consumption and aggregate investment to the current situation will inevitably occur on account of the uncertainty about the normalization of Indian economy to the pre-lockdown times. A detailed study of this process of adjustments between the aggregate goods and labour markets in light of the current pandemic may become useful for the Government to devise effective recovery plans. The policy-makers need to have detailed idea about the macroeconomic changes that have occurred throughout this lockdown so as to conceptualize and implement interventions that provide fast and efficient recovery in the times to come. Moreover, the sudden downward momentum in aggregate supply has implications for the growth momentum. With increasing focus on social sector, Indian growth story needs to translate into meaningful developmental outcomes so that India does not fall into the trap of an unbalanced growth trajectory (Sharma, A.D. 2014).

### *Current crisis and the efficiency of the public administration machinery*

Various events that are unfolding during these demanding times are also a test of the ability of the Indian public administration machinery

to handle a crisis of an unprecedented scale in the recent past. While the Indian administration has been considerably effective in executing the lockdown in major areas of the country, there are some places that seem to be defying the lockdown rules. Moreover, reports of black-marketing of masks and sanitizers, increased bootlegging in some parts of the country and other such incidents have put pressure on the Indian administration at multiple fronts. It is commendable that our public administration has been handling these challenges with considerable efficiency. However, a detailed analysis of the performance of our administrative set-up in enforcing this lockdown while undertaking its regular administrative tasks such as continued policing and supplying essentials such as water and electricity, among others, may help the current Government to mould the public administrative machinery to better suit the needs of modern times.

#### *Changes in income distribution and inequality*

Initial resource endowments can produce stark differences in the outcomes due to crisis such as the one being currently faced by India. While those who have sufficient wealth to deal with the economic losses associated with this lockdown will probably be able to bear the same, those sections of society whose wealth levels are already low and whose incomes are highly volatile, will possibly end up bearing considerable economic costs. These include costs such as the income forgone due to lack of employment, the opportunity cost of time spent without earning sufficient incomes, among several others. Inevitably, since the unlocking process began, the distribution of income and wealth has undergone a considerable shift against such vulnerable sections of the society. The degree of inequality has also worsened further due to these developments. Hence, exhaustive studies on these aspects are urgently required so that policy-makers can act promptly to help these vulnerable sections withstand the possibility of tremendous negative welfare impacts which are now emerging since the process of unlocking has begun.

## CONCLUSION

Extracting pure exogenous variations in socio-economic variables and studying their impact on various macroeconomic and microeconomic processes has been a matter of rich debate and study since long in the realm of Economic analysis. Increasingly, the advent of modern econometric methods and the consequent developments in econometric technologies have allowed more rigorous examination of various macro and micro economic events. Occurrence of the Corona pandemic and the subsequent lockdowns in India have opened up several areas of research that need urgent attention of Economists, policy-makers and those teaching Economics. This is required not only for the sake of knowing about these issues in themselves but more importantly for devising an effective long-term exit plan and a suitable policy matrix to uplift the Indian economy out of this crisis and put it back to the trajectory of the five trillion dollar growth path. The note above provides a very broad outline of the research agendas that policy-makers and analysts can adopt in the times to come so that our understanding of the richness, complexity and dynamism of the Indian economy can be further enriched.

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