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Lockdown Economics: Fiscal Policy during Pandemic Crises

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Introduction

There is a widespread misunderstanding of the economic nature of the lockdown and the effects of monetary and fiscal policy during a lockdown. This note attempts to clarify the different elements, so that correct policies can be devised, with reference to Indian lockdown. However, the analytical approach and several conclusions are equally applicable to other countries which have imposed a lock down or Social confinement of citizens in their homes.

Lockdown Economy and Employment

One of the key analytical devices proposed to analyse the Pandemic and the Lockdown is to divide the economy into three parts: Essential Goods and Services (EG&S), Contact Services (CS) and Rest of the Economy, covering Manufacturing, Mining, Construction & Allied Services (MMC&AS). Essential G&S is defined to include Agricultural & Allied sectors, Food & Beverage industries, Drugs and Pharma industry, Communication & Broadcasting, Public Administration & Defence, most of financial services, medical services, and parts of storage and trade related to these. These are estimated to produce about 40% of Gross Value Added (GVA) and generate 55% of employment (table 1).

Contact sectors are defined by the fact that they involve services which are jointly provided to a number of customers (Air, train or bus travel, Movie halls, prayer services, movie theatres) or are provided in the presence of a large number of people (Hotels & Restaurants, Retail trade). These constitute about 10% of GVA and employment in India. Rest of the economy consisting of Manufacturing, mining, construction and allied transport, trade, storage, finance & repair services (MMC&AS), generates 50% of GVA but provides only about 35% of the employment (Table 1).

Table 1: Share of Employment in Major Sub-aggregates by category

	GVA	Employment Share by Sector(%)				
	Share(%)	Total	Self-Employed	Casual labor	Formal	SE+CL
Total	100	100	100	100	100	100
1.Essential Commodities	40	55	73	62	47	69
1.1 Agriculture & Allied	14	42	55	32	2	47
2. Contact Services	10	10	10	2	9	7
3. MMC&AS	50	35	17	36	44	24
3.1 Manufacturing	14	133	9	6	16	113

Source: Authors Calculations based on Table 2, & Virmani & Bhasin (2020).

The most significant result of this exercise is that Essential goods and services, which are largely unaffected by the Lockdown employ a 15% larger proportion of the workforce (55%)

then their contribution to Gross Value added (40%).1 The second noticeable fact is that the share of employment in MMC&AS sectors is about 2/3rd of its share in GVA. The third noticeable fact is that, the share of Contact Services (Public Transport, Retail Trade, Hotels and Restaurants) in total employment is about the same as its share of total GVA. More than half these workers are self-employed workers (2.6 crore), 60% of who are in Trade (1.7 crore). State govts will therefore have to continue to focus on providing financial support to these workers as they are likely to continue to be affected by the crisis even after the Lockdown is completely phased out (Table 1).[2]

As there is justifiably a great deal of concern about the self-employed and casual labor during the Pandemic, its useful to look at the details. The bulk of the self-employed and casual labor, 30 crore or a little over 2/3rd are in the Essential G&S sector and 10.6 crore or 1/4th is in MMC&S sectors, of which less than a third (3.3 crore) are in the manufacturing sector(table 2). However, casual labor is more relevant to the issue of availability of workers for manufacturing, mining and construction after the lockdown and for the duration of the Pandemic. About 5 crore workers constituting 36% of casual workers are in the MMC&AS sector of which only 0.9 crores (6% of total) are in the Manufacturing sector (Table 2).

Table 2: Employment in Major Sub-aggregates by category (2018-19)

	Employment (crore)				
	Total	SE&CL	Self-Employed	Casual labor	Formal
Total	48.8	43.5	27.3	16.2	14.7
1.Essential Commodities	27.6	30.0	20.0	10.0	7.0
1.1 Agriculture & Allied	20.5	20.3	15.0	5.2	0.3
2. Contact Services	4.2	2.9	2.6	0.3	1.3
3. MMC&AS	17.0	10.6	4.7	5.9	6.4
3.1 Manufacturing	5.6	3.3	2.4	0.9	2.3

Source: Authors Calculations based on CRISIL (2020).
Note: SEC&L = Self-employed & Casual labor, MMC&AS = Manufacturing, mining, construction & allied services

Kundu & Mohanan (2017) estimate the average increase in interstate migrants during 2011-2016 is 3.4 crore. As the rate of growth of rural to urban migration is slower than of rural to rural migration, the rate of female migration has increased relative to male migration, and the percent of migrants reporting less than 10 years of stay has decreased, the decadal growth rate of interstate migrants seeking work in urban areas was a little more than half of those seeking

1 There is one caveat. As government projects and programs involve use

2 The introduction of an Aadhar linked, mobile payment based, Cash Transfer system, should be accelerated by all States to reach them.

work in rural areas. Given that only 0.9 crore of casual laborers are employed in the manufacturing sector, the effect of migrant's fear of returning from their home villages to urban workplaces could have a significant effect on supply chains for manufacturing.

Equilibrium: Essential Goods & Services

The lockdown in India, closed all economic activity, except Essential goods and services, through an order of the Union Govt under the Disaster Management Act. The bulk of Essential commodities consist of food and beverages and its entire supply chain up to the consumer including related transport and sale. Essential services also include Government administration, electricity production and supply, digital communication & media services. We estimate, that these constituted 40% of Gross Value Added and about 55% of employment. Except for administrative glitches and minor disruptions, this part was almost fully functional (>90%), with Demand matching Supply at approximately levels prevailing before the pandemic. Consequently, it can be assumed that both incomes and tax revenues originating in this sector of the economy are also at levels prevailing before the pandemic.

Non-essential goods & services: Equilibrium & Growth

By definition the rest of the economy consists of "non-essential" goods and services, with 60% of GVA and 45% of employment. This includes the major sectors of industry, manufacturing, mining and construction and goods transport, storage, wholesale trade, finance, real estate and business services related to it. It also contains the "Contact sectors" such as passenger transport (air, rail, road), Hotels and Restaurants, Tourism (including religious), entertainment, mass market retail, which constitutes an estimated 10% of GVA and employment.

With the rest of the economy closed there is no production and supply of "non-essential" goods and services. With supply zero due to Govt imposed lockdown, there is notional excess demand for the goods and services in this part of the economy but there is zero effective demand. As there is no market (closed/shut by government order), demands cannot be expressed in the market. So effectively there is a demand-supply equilibrium at zero. Note that even the govt is unable to actualize the demand for non-essential goods and services, because supply is shut.

Assume, for the moment, that legal obligations to pay rents, interest, wages, taxes etc., and repay debt has been suspended in this part of the economy, for the duration of the lockdown. Then the incomes of workers, owners of capital and rentiers would be reduced to zero, as would all the tax revenues of the Govts from this sector of the economy(i.e. non-essential part/Rest of economy). Private individuals would still have to buy essential Goods and services to survive. There would be two categories of individuals/household: (a) The poor without accumulated savings to fall back on: They would therefore be desperately in need of transfers to survive. It would be the primary duty of govt to provide such transfers to ensure survival of poor people with little or no savings or liquid funds. (b) Those with accumulated savings; they would use these savings to purchase essential commodities and thus become net dis-savers.

Consider now what would happen in the non-essential part of the economy if the legal obligations to pay interest, rents and debt are not suspended, and/or the Govt orders MSMEs and professional service firms to pay full salary to all their employees, who are basically sitting at home. The situation could become very grave, with accelerated bankruptcy and permanent destruction of jobs. As MSMEs and Service providers cannot produce or sell, “non-essential” Goods and services because of the Govt mandated lockdown, they have zero sales and sale revenue. Thus, all financial obligations relating to wages, rents interest have to be met from their accumulated Savings. If they have liquid funds they would have to draw down their savings or sell fixed assets at distress prices it they have to meet these legal obligations, accelerating bankruptcy. The paradox of this situation is that it is totally unnecessary for Govt to force MSMEs and other small firms to pay full wages to the workers who are sitting at home because of the lockdown. The average worker in this part of the economy, spends around 1/3rd of his/her normal salary on essential goods and services. Thus forced payment of full salary would result in a sharp increase in his savings as he cannot buy anything but essential goods and services which cost only 1/3rd of his salary. Thus, such workers would be fully satisfied, if they received 1/3rd of their salary, while sitting at home.

MSMEs and small business, in the essential goods & services part of the economy would be in the opposite situation. Both the owners and their workers have most of their regular income but can buy only essential goods and services. So, they would save all the excess of income, over that needed to buy essential commodities, which they would have spent on non-essential goods and services, in normal times. The net aggregate savings would increase in this part of the economy. The net effect of the higher savings in the essential goods and services sector and the increased dis-saving in the non-essential part of the economy, is likely to be a decline in private saving rate given the relative size of the two parts of the economy and the asymmetric financial requirements.

The implications of the lockdown for GVA are clear. With 60% of the economy shut for 2 months, there is a 10% reduction in annual GVA/GDP.3 The GDP from Contact services is lost forever, as services cannot be stored and it is not easy to suddenly consume double your

3 0.1 = 0.6 * 2/12 =0.1, for a lockdown imposed in 2 of the 12 months of the year.

usual quota to make up for lost opportunity.[4] The transition from lockdown to normalcy, during June to August, will therefore be defined by the speed with which the MMC&AS sector (ROE and CS) returns to the level of demand and supply that prevailed 12 months earlier. If normalization is attained by August 2020, a part of this loss could be made up during H2 of FY21. I would therefore estimate a zero-growth over-all with an asymmetric risk towards downside i.e. a band of (-5% to 2.5%). The latter assumes optimal fiscal, monetary, credit (including debt restructuring) and structural reform response from the Government (Union & State) and the RBI.

Government Fiscal Balance

Governments revenues from and expenditures on non-essential goods and services would also be zero. As there is no income tax on Agriculture and allied sector, and GST has zero or low rates on goods produced by this sector and processed in household industry and on many inputs used by it, tax revenues from these would be close to nil. Some tax revenues would accrue from the more modern parts of the essential goods and services. Customs revenue would also continue to accrue given lags between orders and delivery of imports. We assume that taxable income is arising in proportion to the share of formal sector employees, while Excise-GST and Customs revenues is generated in proportion to the Gross Value added in the essential and -non-essential parts of the economy. This yields an 8.9% loss of tax revenues due to a two month lockdown during FY21, compared to a 10% loss of GVA.

On the expenditure side, Govt would continue to pay its govt employees as they are considered essential. It would not, however be able to purchase any goods and services to carry out most of its projects and programs, except for transfer programs, tax refunds and repayment of past dues. The central governments wage and salary bill was 2.4 lac crore in 2017-18 as per the Functional classification of the budget. Projecting this forward yields an estimated 3.2 to 4.0 lakh crore bill during 2019-20. If all the projects and programs are assumed to have halted during lockdown, and income received from government public enterprises goes to nil during the two-month lockdown both these would decline by $1/6^{th}$ or 17% for the full year. Salaries, pensions and other committed payments to States, debtors etc are assumed to be continued to be fully paid. Based on these assumptions the fiscal deficit as a per cent of GDP could increase by about 30% due to the lockdown (alone).

To the extent, Welfare transfers increase to ensure survival of workers and self-employed in the non-essential commodity sector, the deficit would increase during the transition from

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4 For instance, the boss will not double your leave to take two vacations and most people can’t go out to eat at a restaurant 2x their normal, because of family obligations. In contrast it’s relatively easy to buy the consumer durables whose purchase was postponed due to the lockdown.

lockdown to normalcy. But there is an upper limit, given by the consumption of essential commodities by the poor in a normal year. Any further increase in transfers to the poor or transfers to the non-poor will have No effect on the economy. i.e. fiscal stimulus is irrelevant to an economy in lock down.

Legal Asymmetry & Force Majeure

The key problem for the economy in lockdown is asymmetric legal contracts and Government policy and rules which impose asymmetric obligations on employers. Examples of the former are rental agreements, loans taken with obligation to pay interest and repay debts. Examples of the latter are labor laws which keep employers from reducing work hours and wages or fire them, or arbitrary decisions of State Governments to keep paying full wages to employees who are sitting at home due to lockdown. The lockdown therefore creates a threat of mass bankruptcy of firms (SMEs & Household enterprises) in the non-essential sectors. The govt must suspend such asymmetric contracts, so that mass bankruptcy is prevented.

Fiscal Policy during Lockdown

The central bank's obligation is to provide enough short, medium term liquidity, but the Govt has to backstop this through risk sharing and credit enhancements of lending to firms under threat of bankruptcy. Any transfers to firms and individuals who have sufficient savings to meet their normal demand for essential goods and services, do not have any effect on aggregate effective demand, as they cannot buy anything other than the essential goods and services they are already buying. Such transfers can increase firms and individuals, ability to survive, given that, (a) their legal obligations have not been eliminated and may be increasing (e.g. through interest accumulation), and (b) the income out of which some of the legal obligations were to be met has been wiped out by the lockdown. Govt transfers to business can therefore help them retain their ability to restart their business after the lockdown is lifted.

To summarize, Govt transfers must be targeted to those who do not have enough savings to maintain their normal expenditure on essential goods and services. Beyond this no govt stimulus is possible during a lockdown. The only effect of any other govt transfers is to reduce net debt creation and/or stave of bankruptcy of firms, particularly MSMEs, startups and household and tiny enterprises. The only feasible objective of Govt during a lockdown, is to ensure no individual goes hungry and to Stave off Mass bankruptcy in non-essential goods and services.

Monetary policy has to work closely, in tandem with Fiscal policy to achieve the latter policy by providing enough liquidity to the banking system and securities markets that underpin and anchor the payments and credit system and to every systemically important segment of the financial market (NBFCs, Mutual Funds) to ensure that liquidity problems in any institution, don't translate into insolvency and contagion.

Phased Unlocking: Transition from Lockdown to Normalcy

While phasing out the Lockdown the most important distinction to keep in mind, is between individuals as consumers and individuals as workers, professional service providers, managers and owners of businesses & companies. It is possible to minimize transmission of Corona Virus while speeding economic recovery, by a combination of quicker freeing of production and supply and slower normalization of interpersonal and social freedom.

The second important dimension, which is critical to efficient and cost effective transition, is that between Contact Services, which contribute about 10% of Gross Value Added and employment, and Manufacturing, mining, construction & allied services (MMC&AS) , which contributes 50% of GVA and about 35% of employment. By their very nature, former involve mass contact with many other individuals in confined spaces, while in the latter, supply chains are fragmented and spread out geographically. A similar two speed approach to these two sub-sectors of non-essential G&S, is necessary to optimize the trade-off between health and income. The overall goal is to minimize spread of virus through social contact while resuming economic & income generating activity while taking all necessary and feasible precautions at the workplace, in transport of workers and in sale of goods.

The third dimension of the transition is the definition of confinement/quarantine zones which must be isolated, red zones in which all Contact services must remain locked down even as MMC&AS is freed to ensure that supply chains function smoothly and orange zones where social activity remains severely constrained e.g. by night curfew and green zones where even personal services can be liberalized (see appendix).

Given some version of these policies, what is the economic nature of the transition? While the problems of personnel stress among the poor and the threat of mass bankruptcy among business and trade, begins to ease it does not disappear; the latter becomes less widespread but more acute in selected industries, requiring a narrower focus. The new problems relate to the fragmentation of supply chains, and divorcing of workers from workplace, resulting in local and/or regional pockets of *demand-supply imbalances* in markets for goods, labor and working capital. This may create local, temporary spurts/spike in inflation and deflation. As the cause of the spurt in inflation is supply chain disruption, by definition the spurt will not dissipate till supply chain is restored but may moderate through diffusion of inflation. Similarly, differences in the speed of phasing out of lockdown may produce pockets of low demand as potential consumers in quarantined area may not be able to express their demand for goods in the surrounding non-quarantined areas.

The RBI has to focus attention on *working capital* & credit requirements, with particular attention to Self-employed and household enterprises. The Union Govt has to focus on smoothening inter-state flow of goods and allied services and the State's must ensure the smooth flow of workers to and from workplaces, and the intra-state (within State) flow of goods & services, with close cooperation of the Union Govt. The Urban local bodies can play a vital role in smoothing the flow of goods into, out of and through the red zones and welcoming migrants back to their work. Panchayats can help facilitate the return of migrants to their workplace by providing information, calming fears and propagating the importance of normalization of the economy through the participation of all citizens.

With lockdown remaining in contact sectors, the question of stimulating demand in this sector does not arise. Demand & supply are both closed by Govt intention and legal orders. The critical issue in MMC & AS, is one of fragmentation of demand and supply and not of a shortage of aggregate demand. Logical consistency suggests that if there is excess supply in this sector, it will result in sharp deflation. On the other hand, if there is excess demand for the MMC&AS sector, due to mass bankruptcies, this problem can in principle be addressed by facilitating the transfer of assets to stronger firms in the same industries. Thus, inflation pressures are highly unlikely from this sector. The aggregate imbalance will, however become clear, only after national supply chains in all industries are functioning smoothly will the aggregate demand picture become clear.

During this period Governments normal project, program & developmental activities will and must resume. However, it's unclear to what extent these need to be stepped up beyond levels budgeted in February. By the nature of the transition outlined above, there will be much greater need for flexibility on the part of both State and Union Govt and a new role for Local bodies in facilitating the movement of casual labor from their home villages to their work places and vice versa, within and outside the State. There would be a need for speeding up Govt projects in certain geographies where there's excess supply and to slow down activities in geographies where there is excess demand, to smooth imbalances instead of aggravating them.

Fiscal Stimulus Post-normalization

One potential source of imbalance is however, very clear and will need to be acted on as supply chains start functioning normally. This is the sharp reduction of income in the contact sectors, and its effect on demand on the MMC&AS. If government and RBI are unable to stave off many bankruptcies, the supply capacity of the economy will be selectively and somewhat randomly distributed across specific industries in Manufacturing, mining, construction, and allied service sectors. This will add to the supply side of the demand-supply imbalances. It is unclear at this point, whether by the end of the transition, whether there will be an aggregate excess demand requiring a focus on increasing capacity, including through transfer of bankrupt assets to functioning firms, or there will be aggregate excess supply requiring an aggregate demand stimulus.

The issue of an aggregate fiscal stimulus will, however, become relevant as the issues arising directly from the economic lockdown are resolved. Govt should prepare a three-pronged strategy. One is revenue-negative tax reform which gives a boost to demand in short term, raises entrepreneurial optimism and the buoyancy of the tax revenues. This can be done jointly with States through the GST council by simplifying and reforming the GST and by the union govt alone by simplifying and rationalizing the Direct Tax Code. Both these will immensely benefit the MSME, household and tiny sectors of the economy, which face the greatest threat of bankruptcy during the transition. Replacement of the entire subsidy system by an Aadhar linked, mobile payment based Direct Cash Transfer system, will greatly enhance the ability of the Union and .state governments to ensure that those most affected by the Pandemic receive the most assistance form the government in the most timely manner. The third leg of the stimulus will be targeted expenditures and short-term subsidies for those contact services, in which fears of contagion continue to depress demand, even after lockdown has been completely lifted. These subsidies should provide capital assistance for creating a new environment of safety to calm fears of consumers.

Issues connected with Balance of Payments will also become relevant. Global GDP, demand for exports and oil prices are likely to decline sharply during FY21 (YOY). Historical experience shows that the positive and negative effects (including remittances by Indian workers in oil exporting countries) balance out. The net effect of Balance of trade on aggregate trade is likely to be positive. However, the remittances of migrants are likely to decline more sharply than has happened historically as many migrants are compelled to return home. This will be partially offset by increased FDI as supply chains diversify out of China and into India, given market friendly reforms to improve the competitiveness of the economy. Thus, the net effect of all these factors on BOP is uncertain at this point, but is unlikely to be anything like that seen in the previous BOP crisis.

Conclusion

Economists should be very careful in prescribing or demanding a Fiscal stimulus which will have no positive outcome, but can do great harm by diverting Government's attention from problems it must address during a lockdown, and while phasing out the lock down and transitioning to normalization. These issues include the problem of legal asymmetries and potential for mass bankruptcy during the lockdown. During the phasing out of the lockdown, the key issues will be the fragmentation of markets for manufactured goods, labor and working capital, and the expected increase in NPAs due to the lockdown and the continuing Pandemic crisis post lockdown. Complete normalization is impossible without a comprehensive framework for resolution of NPAs.

Given the unprecedented economic uncertainty created by the pandemic, the situation is changing from day to day and week to week. Analysts and economist must monitor the incoming information closely, keep an open mind and be unafraid of modifying their favorite theories and pet policy recommendations, as the uncertainty reduces and is replaced by increasing but measurable risks. Once the economy returns to a semblance of normalcy, normal fiscal issues will return to the fore, and will have to be addressed, along with the critical need for reforming the fiscal system to promote growth recovery and speedy return to the economy’s full growth potential.

With 10% of annual GDP wiped out due to the lockdown, normalization scenarios suggest that growth is likely to between 0 and -2.5%. A positive outcome for growth, though unlikely should not be ruled out. However, it would require outstanding policy decisions by the Union and State Governments and other organs of Government including the Judiciary and local governments.

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Appendix: Phasing Out Lockdown

The lifting of lockdown in MMC&AS, must encompass goods transport, critical both to delivery of inputs into production and supply of finished goods to markets and public (bus) transport for workers from home to workplace and back. MMC&AS has a significant number of Self-employed (4.7 cr) of which 2.4 crore are in Manufacturing, and even more casual workers (5.9 crore), of which 4.5 crore are in construction (table 1).

It is, therefore, especially important to phase out the lockdown in these sectors as quickly as feasible, subject to the following Socio-Spatial Distancing Rules and conditions to minimize the transmission of the Communicable SARS Corona Virus 2.

a) Section 144+: No physical meeting of >4 unrelated adults in Public spaces, Religious or semi-private place.

b) Physical Distancing (2-3m) by individuals outside home, including customers, workers, commuters, individuals in public spaces (e.g. Parks, roads, local shops)

c) Compulsory mask wearing by all individuals outside their home.

d) Intensified protocol for hand washing, toilet cleanliness in workplace & public toilets.

e) Evaluation (temp, travel history, Aarogya Setu mobile App) of workers/customers entering factory, office, shop or another establishment. Testing of workers suspected of Covid-19. Home quarantine of un-symptomatic and mild cases.

In freeing up agricultural, mineral and industrial production and transport of workers, inputs & outputs some differentiation will have to be introduced on the whole sale and retail side of the supply chain. To reduce the need for public to congregate in shops and markets, home delivery of all above goods, must be decontrolled for duration of the crisis. Though stand-alone wholesale/retail sales outlets can be opened early, mass retail/wholesale markets for goods will have to be carefully evaluated with respect to pop density and COVID cases in catchment area and phased accordingly.

Within the contact services, personal services (e.g. at 1/2 capacity) and Hotels & Restaurants, should be phased slowly keeping in mind the ease or difficulty of enforcing the rules outlined above. For instance, Restaurants (free-standing or in Hotels), with attached gardens or open terrace can be allowed to open earlier. Given the large number of self-employed workers in Trade (2.6 crore) the phasing out of restrictions on this sub-sector will be particularly challenging.

I estimate the employment effect of the one month lock down in April 2020 as approximately 21 crore workers sitting at home. Of these an estimated 7.7 crore were formal workers who were still receiving whole or part of their wages and salary, while the remaining 13.3 crore were living on their accumulated saving or welfare transfers from government or Non-profit organizations. It should be noted in this context that all these workers could purchase were essential commodities which constitute 30% of the consumption basket of the middle class and a maximum of 50% of the consumption of the poor. Thus transfer of food or transfer payments of ½ of normal wage earnings of the self-employed and casual workers would have been sufficient for their survival. Further, Formal sector workers receiving more than 30% of their normal wages, would have saved all the rest, thus increasing their accumulated net savings (i.e. net of debt).

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