

COVID- 19 and Economic Loss of First Phase of (21- Day) Lockdown in India

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Abstract

To curb Covid-19 spread, Prime Minister Narendra Modi has announced a 21-day nationwide lockdown on 23 March 2020. The present study makes an attempt to estimate the state-wise and economic activity-wise economic loss of 21- day lockdown in India. The data on Net State Value Added (NSVA) by economic activity was collected for five years from the Reserve Bank of India. It was found that the percentage of the daily loss of Net State Value Added (NSVA) was considerably higher for the states of Chandigarh, Delhi and Karnataka. The manufacturing sector was expected to be the highest loser, followed by real estate, ownership of dwelling and professional services. In absolute terms, the loss was prominent in Maharashtra, Tamil Nadu and Karnataka. It is worth mentioning here that what could be the magnitude of the impact of a complete social and economic shutdown may not be easy to estimate, but it is likely to be far more severe.

Keywords: COVID- 19; Lockdown; Economic Loss; Net State Value Added; Economic Activity; Manufacturing Sector; India

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Introduction

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (World Health Organization, 2020). The disease was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in the ongoing 2019–20 coronavirus pandemic (World Health Organization, 2020a). As of 14 April 2020, more than 1.91 million cases COVID-19 have been reported in 210 countries and territories, resulting in more than 119,000 deaths (Center for Systems Science and Engineering, 2020). More than 449,000 people have recovered, although there may be a possibility of reinfection (Center for Systems Science and Engineering, 2020). In India, as of 12 April 2020, the Ministry of Health and Family Welfare has confirmed a total of 10,363 cases, out of which 1,036 recovered but 339 faced death. Prime Minister Narendra Modi has announced a 21-day nationwide lockdown on 23rd March 2020 to prevent the spread of COVID-19, since social distancing has proven to be one of the most effective tools in curbing its spread. The impact on the economy has been severe as no economic activity has taken place for 21 days, except for essential services and public administration. It was argued that, if the 21-day long national lockdown leads to 80% production loss, the economy will take a hit of INR 350000-400000 million on a daily basis shaving off INR 6000.3-7000.2 million cumulatively (“21-Day Lockdown”, 2020). India’s GDP growth could fall below 5% in the fiscal year 2021, if policy action is not taken urgently, according to the Confederation of Indian Industry (Mukherji, 2020).

Along with the growth hit and poor tax collections, the fiscal deficit for 2021 to balloon by over 1% of GDP (Wadhwa, 2020). Many warn it may result in a significant number of people dying due to hunger and poverty arising out of the economic impact of the lockdown (Bhasin, 2020). According to a survey by the Centre for Monitoring Indian Economy, India’s

unemployment rate could have climbed to more than 20% (Nag, 2020). As many as 92.5% of labours have already lost one to three weeks of work, according to a rapid assessment survey by Jan Sahas (Kapur, 2020). The small-scale sector has suffered more than the large-scale sector, as these businesses work with a limited amount of working capital and, as their sales have declined, they will exhaust it (Kumar, 2020). Within these contexts, the present study attempts to estimate the state-wise and economic activity-wise economic loss of 21- day lockdown in India.

The rest of the paper is arranged as follows. The data and strategy for quantifying losses are covered in the second section. The third section describes the state and economic activity-wise loss in 21- day lockdown period. The conclusion is sketched in the final section.

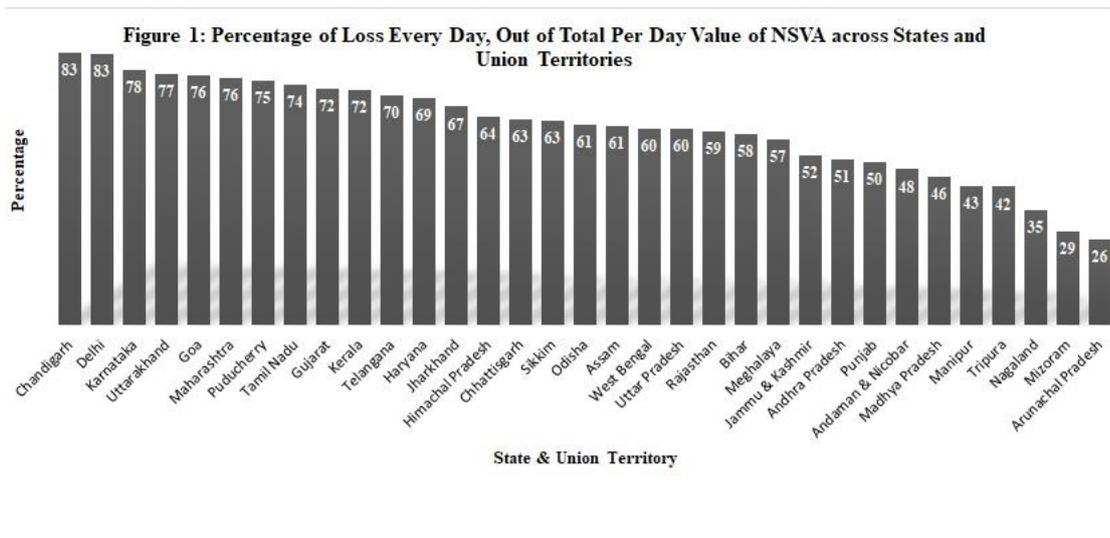
Data Source and Strategy for Quantifying Loss

The data on Net State Value Added (NSVA) by economic activity (at basic price 2011-12, at current prices) was collected for five years (2014-2015, 2015-2016, 2016-2017, 2017-2018 and 2018-2019) from the Reserve Bank of India (RBI). NSVA is defined as a State Net Domestic Product plus subsidies on products minus taxes, and NSVA generally is a better indicator for analytics (Mishra, 2020). After calculating the average of the five years NSVA across states and economic activities, the study estimated the value of NSVA per day, because the study accessed the impact of 21-day shutdown period. While estimating the economic loss of 21- day lockdown, the present study included seven sectors — mining and quarrying; manufacturing; construction; trade, repair, hotels and restaurants; transport, storage, communication & services related to broadcasting; financial services; real estate, ownership of dwelling & professional services, which were complete shutdown or near-complete shutdown. No concrete estimates for agriculture, forestry and fishing can be made at the moment, because the impact on agriculture, which is seasonal in nature, cannot be ascertained exactly (Bhasin, 2020; Mishra, 2020). Besides, electricity, gas, water supply and other utilities; and public

administration, defence and other services have continued as earlier, so they may not witness any loss of economic activity (Mishra, 2020). It is assumed that a few functional sub-sectors may have a nullifying effect on the disruptions in excluded sectors like agriculture, public administration which cannot be quantified accurately (Mishra, 2020).

State and Economic Activity-Wise Loss in 21-Day Lockdown Period

Estimates reveal that in Chandigarh and Delhi, out of a total per day value of NSVA, both the states are expected to occur loss of 83%, every day (Figure 1). Karnataka incurs a second highest loss of 78%, as against 77% in Uttarakhand. In the case of Goa and Maharashtra, the share of loss is 76% each. Likewise, the share of loss is 61% in Assam and Odisha, 26% in Arunachal Pradesh and 29% in Mizoram.



Source: Author’s estimation based on the NSVA data collected from RBI for five years: 2014-2015, 2015-2016, 2016-2017, 2017-2018 and 2018-2019

The Indian economy is expected to lose around INR 4576.0 billion during the 21- day nationwide lockdown period (Table 1). The sector that is hugely impacted is manufacturing (loss of INR 1058.2 billion), as against real estate, ownership of dwelling & professional services (loss of INR 1026.2 billion). Kumar (2020) argued that the impact on the manufacturing sector will be quite large because people are required to go to their workplaces and that has been curtailed due to the lockdown. As far as state-wise loss is concerned, Maharashtra has emerged as the highest loser with INR 697.3 billion, while Tamil Nadu states in second place (INR 447.5 billion). Among all states and union territories, Karnataka ranks third with a loss of INR 430 billion during the 21- day lockdown period. It is also apparent from Table 1 that among all states and union territories, the loss of manufacturing, and trade, repair, hotels and restaurant sectors are perhaps

highest in Maharashtra (INR 193.2 billion and INR 93.2 billion, respectively). As Table 1 reflects, Gujarat is the second-most loser state in the manufacturing sector after Maharashtra with INR 145.6 billion.

Further, the loss of real estate, ownership of dwelling & professional services is highest with INR 185.2 billion in Karnataka, whereas it is INR 165.4 billion in Maharashtra. Except for the state of Assam, all other North Eastern States (NES) have incurred minimal loss with the range of INR 2.5 to INR 8.0 billion (Table 1). It can also be observed in Figure 1 that, except for Assam, Sikkim and Meghalaya, the percentage of per day loss of NSVA is relatively low for the remaining NES. Again, the percentage of per day NSVA loss has been observed to be comparatively smaller in largest states like - Andhra Pradesh, Bihar, Madhya Pradesh and Punjab (Figure 1). As Table 1 shows that, the

states of Andhra Pradesh, Bihar, Madhya Pradesh and Punjab have contributed relatively a smaller amount to the total loss of the economy. Also, in these states, a significant portion of losses is from manufacturing and trade, repair, hotels and restaurants sectors (Table 1). The contribution of Goa and Puducherry on the total loss of the economy is

only INR 19.7 (0.4%) and INR 9.9 billion (0.2%), respectively, which can be possible because of their smaller economy size. However, their percentage of per day NSVA loss is found to be 76% (fifth position) and 75% (seventh position), respectively and this reflects the greater dependence on manufacturing sector.

Table 1: Distribution of Value of Economic Loss Due to 21- Day Lockdown across States/Union Territories and Economic Activity-Wise (INR Billion)

State/UT	M&Q	M	C	TRH&R	TSC&B	FS	REOPS	Total Loss
Andhra Pradesh	9.0	27.9	25.9	27.0	29.4	12.0	26.7	157.8
Arunachal Pradesh	0.0	0.3	1.0	0.4	0.2	0.2	0.3	2.5
Assam	11.0	12.1	9.1	17.1	6.0	3.4	6.6	65.3
Bihar	1.3	14.6	18.2	43.1	17.5	7.5	19.5	121.6
Chhattisgarh	11.2	19.2	15.6	8.8	5.2	5.3	14.2	79.5
Goa	0.3	12.1	1.0	1.9	0.8	1.4	2.1	19.7
Gujarat	16.4	145.6	30.4	59.2	23.5	28.1	26.3	329.4
Haryana	0.3	41.4	21.4	30.4	13.9	10.3	39.9	157.6
Himachal Pradesh	0.2	16.7	4.6	3.6	2.6	2.6	6.2	36.5
Jammu & Kashmir	0.3	4.8	4.8	5.2	3.2	2.4	6.0	26.6
Jharkhand	9.4	18.3	9.7	13.3	8.0	3.6	9.5	71.7
Karnataka	4.0	79.0	34.8	64.7	32.6	30.1	185.2	430.4
Kerala	1.9	24.8	38.7	51.7	20.8	12.3	38.9	189.1
Madhya Pradesh	11.7	25.0	25.5	34.3	17.5	12.5	15.0	141.3
Maharashtra	31.3	193.2	58.4	93.2	52.3	103.4	165.4	697.3
Manipur	--	0.3	1.1	1.4	0.6	0.2	0.8	4.4
Meghalaya	0.7	1.0	1.0	2.7	0.7	0.4	0.7	7.2
Mizoram	0.1	0.1	0.8	0.8	0.3	0.2	0.3	2.3
Nagaland	0.1	0.1	0.9	1.0	0.4	0.3	0.7	3.5
Odisha	13.9	23.1	13.7	19.0	11.5	7.4	12.9	101.4
Punjab	0.4	26.6	13.1	21.9	9.6	10.7	17.3	99.6
Rajasthan	26.5	38.5	33.4	46.0	20.9	12.2	40.3	217.6
Sikkim	0.0	4.0	0.5	0.5	0.2	0.2	0.3	5.7
Tamil Nadu	2.5	115.8	70.6	77.4	39.6	35.6	105.9	447.5
Telangana	9.8	39.9	16.1	51.4	21.3	20.7	64.7	223.9
Tripura	2.1	0.7	1.1	1.8	0.6	0.7	1.0	8.0
Uttarakhand	1.3	34.1	7.3	11.9	5.8	2.5	3.9	66.8
Uttar Pradesh	7.2	71.7	65.9	59.6	43.8	23.3	83.4	354.9
West Bengal	4.1	46.0	32.1	70.4	25.6	22.7	51.2	252.1
Andaman & Nicobar	0.1	0.0	0.4	0.3	0.3	0.1	0.3	1.5
Chandigarh	0.0	0.6	0.7	5.3	0.8	2.1	2.4	11.8
Delhi	4.1	16.9	13.0	36.9	39.7	44.4	76.8	231.8
Puducherry	0.2	4.0	1.9	1.3	0.5	0.5	1.5	9.9
Grand Total	181.2	1058.2	572.5	863.1	455.5	419.3	1026.2	4576.0

Source: Author's estimation based on the NSVA data collected from RBI for five years: 2014-2015, 2015-2016, 2016-2017, 2017-2018 and 2018-2019

Note: M&Q= Mining and Quarrying; M= Manufacturing; C= Construction; TRH&R= Trade, Repair, Hotels and Restaurants; TSC&B= Transport, Storage, Communication & Services related to Broadcasting; FS= Financial Services; REOPS= Real Estate, Ownership of Dwelling & Professional Services

Conclusion

As the coronavirus cases in India climb, imposing a lockdown on 1.3 billion people was always going to be challenging. The daily loss of NSVA is considerably higher for the states of Chandigarh, Delhi and Karnataka. The manufacturing sector is expected to be the highest loser, followed by real estate, ownership of dwelling & professional services. In absolute terms, the loss is prominent in Maharashtra, Tamil Nadu and Karnataka. Except for the state of Assam, all other NES have incurred minimal losses. The study shows that the percentage of daily NSVA loss is comparatively lower in larger states like - Andhra Pradesh, Bihar, Madhya Pradesh and Punjab. It is worth mentioning here that what could be the magnitude of the impact of a complete social and economic shutdown may not be easy to estimate, but it is likely to be far more severe. Since each sector has its own dynamics and different cycles, therefore, the full impact can be felt beyond a few months (e.g. six months to one year).

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