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Pandemic Response and Economic Recovery in India: A Critical Analysis of Policy Measures During COVID-19

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Abstract: ***COVID-19 infections have been rising since January 30, 2020, due to community transmission. The Indian government had to choose between citizen and economic health during the pandemic. Many believe in the lives over livelihood debate that the Indian government did too little to protect citizens' health, especially marginalized communities. Many believe that by imposing nation-wide lockdowns and closing many sectors of the Indian economy indefinitely, the Indian government did not prioritize its citizens' economic well-being. This paper aims at critiquing both these views, and relates to the success of the Indian government in overcoming the pandemic and mitigating its adverse impacts. This paper aims at reviewing the key factors which led to the strong revival of the Indian economy. Two-fold contribution of the paper: it begins by explaining the government's policy choices, their risks, and how economic models are used to mitigate them. Second, it separates structural variables (for better growth) and policy responses (for better economic resilience) in the Indian economy.***

Keywords: Pandemic management, Resilience, Economic revival, Indian economy

1. Introduction

An economy is continuously affected by shocks which give rise to business cycles. Business cycles refer to the fluctuation of output around the trend output. When output is greater than trend output, it is referred to as a positive output gap; and when output lies below the trend output, it is known as a negative output gap.

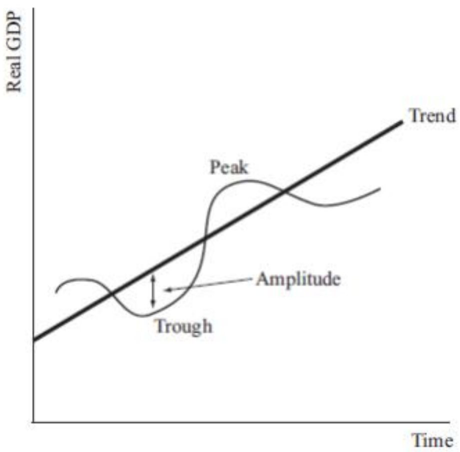

Figure 1: Output Growth Curve

*Note.*The above figure represents the trend line (which determines the trend/ full employment output at a given time) and the actual output growth (which oscillates around the trend output).

To this effect, we distinguish India's economic performance from growth trend and economic resilience: (1) Economic resilience: Economic resilience refers to the ability of the economy to minimize the adverse effects of such shocks; and return output to its trend level. Economic resilience, thus, is a short-run concept and mainly depends on short-term policy responses and micro-economic responses to these policies. (2) Economic growth trend: Economic growth trend is a long-run concept and is reflective of the structural characteristics of the economy.

Monetary and fiscal policies are mainly effective in stabilizing output around its trend output; whereas the developmental policies, institutions, culture of innovation, and other such structural factors determine the trend output. This gives us the basic rationale that short-term policies (demand management policies) mainly affect short-term results (economic resilience); whereas long term policies mainly affect long-term results (economic growth trend). While long-term policies do help improve resilience to some extent by bettering micro-economic responses, the magnitude of the COVID pandemic and the weak resilience of developed economies with strong structural characteristics to the pandemic gives us the rationale of omitting the plausible impact of such factors on economic resilience.

While fiscal policy has some real effects in the long-run (changing the real interest rate), monetary policy is shown to be completely neutral in the long-run. However, both these policies have negligible effects on the trend output; and thus are used mainly to stabilize short-run fluctuations in output and employment. On the other hand, long-term policies focusing on the structural features of the economy do have a significant impact on economic revival as they determine the micro-economic responses post an adverse shock.

The rest of the paper is organized as follows: Section 1 sheds light on the current prospects of the Indian economy against the backdrop of the economic health of developed economies, Section 2 reviews the key challenges faced by Indian policy makers and provides economic rationale for their decisions, and the last, section 3, highlights the key structural changes in the Indian economy over the past decade which has led to such a promising growth trajectory for the Indian economy.

Current Prospects of the Indian economy

The Indian economy is forecasted to be one of the world's fastest growing economies and is poised to become a developed economy by 2047 (if it achieves annual GDP growth of 7.5% for the next 25 years) (Pti, 2023). The Morgan Stanley report predicted a 0% probability of recession in India, and further predicted an economic boom for the country (Rathore, 2023) which is further testament to India's economic resilience. The Indian economy recorded a growth of 7.8% in the first quarter of 2023-24 (April-June) (Piyush, 2023), and is conservatively expected to grow at a rate of anywhere between 6%-6.3% for the next 2 years (Majumdar, 2023). If global conditions improve, the Indian economy could achieve a growth rate of 7% (Majumdar, 2023). On the contrary, the average growth rate for the world is expected to be 3% for the next 2 years (*World Economic Outlook Update, July 2023: Near-Term Resilience, Persistent Challenges*, 2023). While major developed economies are further tightening their policy stance to combat inflationary pressures, the Indian economy is set for a high growth trajectory.

In the part below, we compare the prospects for the Indian economy with those of developed economies (USA, Euro Area, and UK):

Economic Scenario

Almost all sectors of the Indian economy are showing signs of acceleration. In FY 2022-23 (April-March), the index of industrial production increased by 5.2%, manufacturing output increased by 4.7%, production of capital goods increased by 12.5%, and infrastructure and construction increased by 12.5% (Biswas, 2023). Consumption grew at 7.5% in the same period (Majumdar, 2023). On the contrary, several developed economies (USA, Euro Area, and UK) are experiencing tight labour market conditions, which is further worsening the inflation scenario (since tighter labour markets lead to rise in wages which would further the purchasing power and inflationary pressures) (Kailash, 2023). In the USA, employment is growing at a faster rate than the labour force, thereby reducing unemployment and further tightening the labour market (Kailash, 2023).

Economic Growth

The Indian economy grew at 7.2% for FY 22-23 and 7.8% for Q1 2023 (April-June) (Majumdar, 2023) . The US economy grew at a rate of 2.4% in Q2 2023 (which is greater than its long term growth trend) (Kailash, 2023). Real GDP growth returned to positive territory in the Euro Area in Q2 2023 (0.3%) (Kailash, 2023). However, this growth is expected to be one-off as it mainly accrued from Ireland's strong growth (50% of the growth could be attributed to Ireland) and the sale of a cruise ship by France (Kailash, 2023). Several economies in the Euro Area have recorded no growth (such as Germany and Portugal), while a few others experienced negative growth (Italy and Australia) (Kailash, 2023). Similarly, the UK grew at a rate of 0.1% for this quarter (Kailash, 2023).

Inflation

RBI projected CPI inflation to be at 5.4% for FY 22-23, an improvement of 1.1% from the previous year (Biswas, 2023). Moreover, the forecasted inflation rate of 5.4% is within the tolerance band of 2%-6% of RBI and thus is not a cause of worry. On the contrary, the primary concerns for all these developed economies is the presence of inflationary pressures arising from the tight labour markets, the Russia-Ukraine conflict, and the aftermath of the pandemic and energy crisis (Kailash, 2023). Owing to its pre-commitment to maintaining an inflation target of 2%, the monetary authorities have lost their discretion in pursuing independent policies to foster economic growth. Moreover, the ECB (European Central Bank) has a sole mandate of maintaining price stability which has led it to neglect the risk of recession. While inflation in the USA and UK continues to decelerate, inflation appears to have been stuck at high levels in the Euro Area. Germany and Italy are experiencing very high rates of inflation (6.5% and 6.4% respectively) (Kailash, 2023). This has led to subsequent upward revisions in the interest rates in these regions throughout 2023. Subsequent to the pandemic, interest rates have risen by 525 bps in the USA, 425 bps in Europe, 490 bps in UK, and 250 bps in India (Kailash, 2023).

Understanding Economic resilience of India

Role of Monetary and Fiscal policy in stabilizing the economy

The monetary and fiscal authorities aim at minimizing the negative effects of adverse shocks, and aim to keep output at its trend level. The shocks hitting the economy may be temporary or permanent, and may affect demand (demand-side shocks) or supply (supply-side shocks). The response of the monetary and fiscal authorities depend to a large extent on the nature of these shocks. For instance, a temporary shock may require temporary responses at best (or no responses owing to the long and uncertain lags of monetary and fiscal policies); however a permanent shock may call for a more activist approach. Demand-side shocks affect output and inflation symmetrically (for instance, an adverse demand shock leads to a negative output gap and fall in inflation below its targeted level); and thus there is no trade off faced by the monetary and fiscal authorities (since stabilizing output would stabilize inflation and vice versa). However, supply side shocks asymmetrically affect output and employment; and thus the authorities need to prioritize between returning inflation to its target and output to its trend level (this is done based on the relative inflation-unemployment preferences of the authorities which is captured by their loss function).

Effectiveness of Monetary and Fiscal policy in response to COVID

An economy is said to be completely resilient post an adverse shock if it follows the similar growth trajectory it would have in the absence of the shock. In economic terms, the above relates to the presence of a level effect (that is the actual level of GDP and GDP per capita would be different in the presence and absence of the shock); however there would be no growth effect (that is the forecasted growth rate of GDP and GDP per capita in the absence of the shock and the growth rate of GDP and GDP per capita post the shock would be identical).

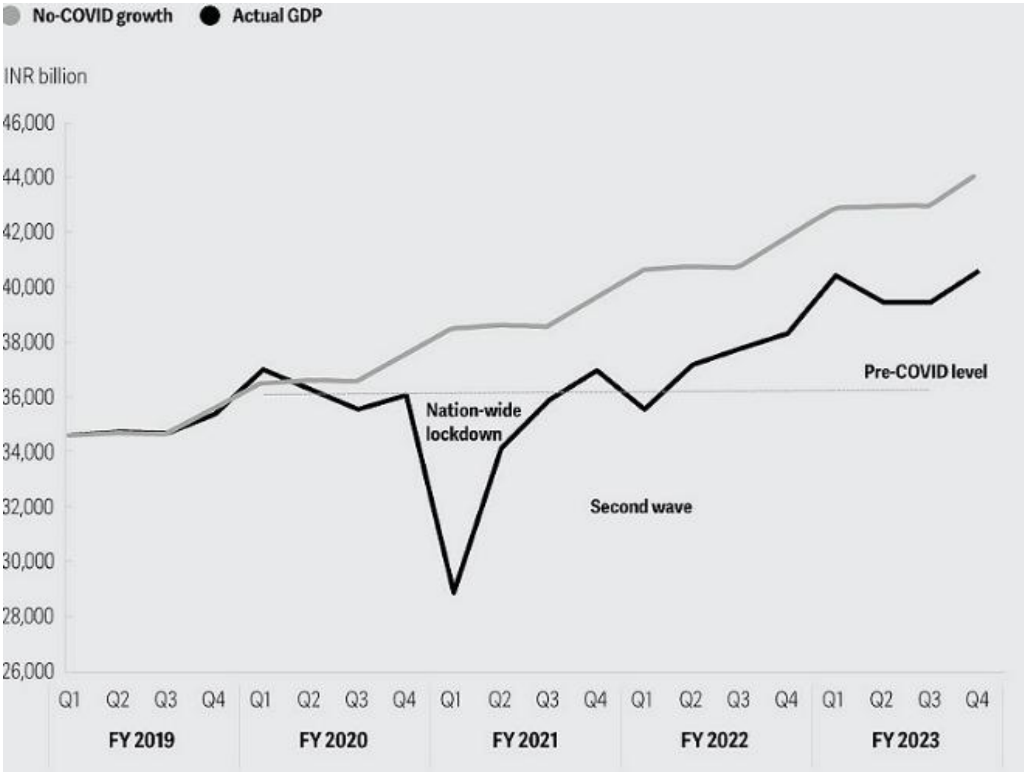

Figure 2: Comparing India's growth trajectory in the presence and absence of the pandemic

Note. The above image shows the growth trajectory of India (black line) and the anticipated growth trajectory of India in the absence of the pandemic (grey line) (Majumdar, 2023).

Thus, success of the policy makers is gauged on the following basis: (1) The time taken in stabilizing the economy post an adverse shock; (2) The ability to mitigate the permanent effects of adverse shocks. The above image confirms the presence of a level effect (since actual GDP is much lower than what it would have been in the absence of COVID); however the growth trajectory is almost identical signifying the absence of a growth effect of COVID. Moreover, apart from the onset of the second wave (which represents a further adverse shock); it is clear that the Indian economy mitigated the growth effect of the pandemic as soon as Q2 of 2021.

Policy Responses

Overview of policy responses

Table 1: Table Reviewing the Stimulus Packages Introduced in India

Division	Budget (in Billion Rs)
Tranche 1	5945.5
Tranche 2	3100
Tranche 3	1500
Tranche 4&5	480
Sub-Total (A)	11,026.5
PM Gareeb Kalyan Yojana	1920
RBI Measures (Actual)	8016.03
Sub-Total (B)	9944.03
ANB 1.0 Grand Total (A+B)	20970.53
As % of GDP	10

Note. The stimulus packages in response to COVID were introduced in trenches. The above table reviews the stimulus packages introduced in India.

Reviewing the successful policy implementation

The following section is organized as follows: We present the challenges faced by the government, review the activities of the government to mitigate these challenges; and their outcome.

Loss of Lives

***Challenges*:** The exponential growth of cases in China and other parts of the world made the government fear community transmission. Being the world's second most populated country (Jagannath, 2020) forced the Indian government to introduce a slew of measures to curb the pandemic. These measures are discussed below:

***Government activities (Lockdowns)*:** The fear of community transmission and the exponential growth trajectory of cases in China and other parts of the world made lockdowns inevitable. Even though responses to such pandemics are generally decentralized and the process of subsidiarity is followed; the Indian federal government announced the first nation-wide lockdown on March 25, 2020 for a period of 21 days (Chakraborty & Harikrishnan, 2022). The lockdown was further extended on 14th April until 3rd May, followed by subsequent extensions until 31st May (*Policy Responses to COVID19*, 2020). These extensions also took into account the existing state of the economy and the current problems faced by the people owing to these lockdowns (*Policy Responses to COVID19*, 2020). For instance, the government permitted inter-state movement of migrant workers from 29th April (*Policy Responses to COVID19*, 2020).

***Outcomes*:** (1) It was estimated that in the absence of these lockdowns, India would have had 820000 (as against 11438 actual cases) cases by April 15 (Pal & Yadav, 2020); (2) Chatterjee et al. (2020) used a stochastic mathematical model to estimate that the case tally would have gone up to 3 million by 25th May in the absence of lockdowns (as against 1.4 million actual cases); (3) The growth of new cases went down from 22.6% on 3rd April to 5.5% on 15th May. The death rate came down from 48% to 5.5% in the same period (Sanjana et al, 2020);(4) The lockdowns helped a great deal in slowing the growth rate of infections. From doubling every 3 days, cases went to doubling every 6 days by 6th April. The rate of doubling went down to 8 days by 18th April and 12 days by 25th April (Sanjana et al, 2020); (5) A group of Oxford researchers, known for their stingy-scoring, scored the Indian policy makers 100/100 in announcing timely measures to curb the pandemic (*COVID-19 Government Response Tracker*, 2020).

Economic Challenges

***Challenges*:** (1) Economic Slowdown: The lockdowns induced the Indian economy to contract by 7.3% in FY 2020-21 (Mangla, 2021). The GDP contraction would have been over 8% if the informal sectors had been considered (Mangla, 2021). The GDP contraction in India was much higher compared to other emerging market economies (2.2% contraction) and the world average (3.3%) (Economics Observatory, 2022).

Table 2: India's Economic Slowdown in Response to the Pandemic

Percentage Change over the previous year				
Sr.no	Item	2018-19	2019-20 (1st RE)	2020-21 (2nd AE)
1	Private final consumption expenditure	6.84	5.5	-8.98
2	Government final consumption expenditure	6.39	7.89	2.94
3	Gross fixed capital formation	10.47	5.44	-12.38
4	GDP	6.29	4.04	-7.96

Note. The above graph shows sources of economic slowdown in response to the pandemic. RE refers to the revised estimate, whereas AE refers to the actual estimate.

***Loss of livelihood*:** The unemployment rate sharply rose in Q2 of 2020-21 to 20.8%. The unemployment rate was 7.1% in FY 2020-21, which was much higher than that of emerging market economies (6.4%) and the world average (6.5%) (Economics Observatory, 2022). It was estimated that 100 million jobs were lost during the lockdowns (April to June 2020) (Azim Premji University, 2021). A high level of persistence was observed in the loss of employment (15 million workers remained out of work even after relaxation of lockdowns) (Azim Premji University, 2021). It was estimated that individual income dropped by over 40% during this time (Azim Premji University, 2021; Economics Observatory, 2022). It was reported that 20% of the poor households did not receive any income during the lockdown, thereby increasing the rural and urban poverty rate by 15% and 20% respectively (Azim Premji University, 2021). As a counterfactual, the rural and urban poverty rate would have declined by 5% and 1.5% respectively in the absence of the pandemic (Azim Premji University, 2021). A CPHS survey revealed that the reduction in per capita spending was greater than the reduction in GDP (Economics Observatory, 2022). The study further revealed that the average per capita consumption was 20% lower in August of 2020 (as against August 2019) and 15% lower by the year end (compared to December 2019) (Economics Observatory, 2022). Labour's share in GDP fell by over 5% (32.5% in Q2 of 2019/20 v/s 27% in Q2 of 2020/21) (Azim Premji University, 2021).

***Increase in inequalities*:** The number of poor people more than doubled in India owing to the lockdowns (Pew Research Center, 2022; Economics Observatory, 2022). CPHS data showed that while rural poverty increased by 9.3% between December of 2019 and 2020, urban poverty increased by 11.7% during the same period (Economics Observatory, 2022). It was further revealed that the lockdown asymmetrically impacted the Indian workforce (Azim Premji University, 2021). By 2020 end, the unemployment rate among men (>25 years) who had lost their job due to COVID was 7%, whereas that of women (47%) and youth were much higher (33%) (Azim Premji University, 2021). While men transitioned to the informal workforce (mainly to self-employment, followed by casual wage); women were moved out of the workforce (Azim Premji University, 2021).

***Food crisis*:** The economy was infected by a food crisis owing to supply-side and demand side factors. On the demand side, there was a sharp rise in unemployment leading to loss of income for several individuals. The unemployment rate peaked in April of 2020 (23%) and went down to 10.18% by June (Saxena & Mohan, 2021). Food insecurity was rampant among households, increasing from 21% (pre-lockdown) to 81% (during and post lockdown) (*The Impact of Covid-19 Pandemic over the State of Food Security and Nutrition in India*, 2022). According to the CLIPS survey, 90% of individuals suffered from a reduction in food intake during lockdowns; and the condition of 20% of those did not improve even after 6 months (Azim Premji University, 2021). The pandemic forced 230 million workers below the minimum wage threshold (Azim Premji University, 2021).On the Supply side, there were wide-spread issues in the supply chain owing to transportation constraints. This led to spatial dispersion and drove a wedge between retail and wholesale prices (Narayanan & Saha, 2021).

As a result, prices rose by over 3% in the first 20 days of the lockdown (*Economic Survey 2020-21*, 2021; Workie et al., 2020). In the 4 weeks following the lockdown, prices had risen by over 6% for pulses, 3.5% for edible oils, 15% for potatoes, and 28% for tomatoes (compared to 4 weeks before the lockdown) (Narayanan & Saha, 2021). Food inflation rose to 9.1% in Q2 of 2020-21 (*Economic Survey 2020-21*, 2021).

***Situation of migrant labourers*:** The lockdowns resulted in loss of income for several migrant labourers due to slowdown in the manufacturing and construction sectors. The uncertainty regarding the length of lockdowns made these labourers fear of starvation and prompted irrational responses on their part. Several migrant labourers were seen walking or cycling back to their villages which resulted in arrests of many and death of few (due to exhaustion and accidents) (Madhukalya, 2020). It was further revealed that 81% of migrant labourers lost employment (compared to 64% of non-migrants who became unemployed) and 31% of them did not have access to ration cards (compared to 15% for non-migrant labourers) (Azim Premji University, 2021).

Activities by the government

***In response to the food crisis*:**The pandemic induced economic stand-still and the accompanying inequalities and food insecurities led the government to engage in extensive social protection spending (April-June). The presence of lockdowns undermined the government's ability to tackle such issues through supply side responses during this period. Thus, the government primarily engaged in unconditional transfers (cash and in-kind) which amounted to 1.2% of GDP (*Policy Responses to COVID19*, 2020). During this time, the employment and wage support to low wage workers induced government spending amounting to 0.5% of GDP (*Policy Responses to COVID19*, 2020). A relatively smaller amount was spent on improving the health-care infrastructure (0.1% of GDP) (*Policy Responses to COVID19*, 2020).

Following were the outcomes: The India working survey revealed that 65% of eligible households (those who had priority ration cards or Jan Dhan accounts) received some allocation under the PMKGY scheme (*India Working Survey – Centre for Sustainable Employment*, 2020; Azim Premji University, 2021). However, exclusion was a major problem with such relief packages as they only catered to the needs of those registered under the federal welfare scheme (Azim Premji University, 2021). The measures introduced by the government helped a great deal in overcoming the food inflation. Inflation in food and beverages reduced from 11% in October of 2020 to 3.4% in December of 2020 (*Economic Survey 2020-21*, 2021).

***In response to economic slowdown*:** On 1st May, the federal government divided the different regions of India into 3 zones (red, green, and orange) based on the spread of cases and risk of further transmission (*Policy Responses to COVID19*, 2020). Several relaxations were announced in green and orange zones. The government estimated the future spread of cases using superior econometric models; and thereby, decided to re-open the economy in a phased manner from 1st June (*Policy Responses to COVID19*, 2020). The Indian economy was re-opened through a series of "Unlock" measures which were announced periodically until 15th October (*Policy Responses to COVID19*, 2020). The emergence of the second wave of the lockdown forced the government to re-impose several lockdown measures in 2021 Q2 (*Policy Responses to COVID19*, 2020). With economic revival on the cards (in October), the RBI engaged in liquidity operations throughout September (amounting to 5.9% of GDP) in order to stimulate demand in the economy.

Following were the outcomes: The efforts of the government to revive the economy led GDP growth to enter positive territory by Q3 of 2020 (0.5%) (Economics Observatory, 2022). The additional investment expenditure and liquidity measures led to a further increase in the GDP growth rate in Q4 of 2020 (1.6%) (Economics Observatory, 2022).

***In response to unemployment and inequality*:** The reopening of the Indian economy led the government to shift its focus to employment creation. In October, The government incurred significant expenses in providing interest-free loans and increasing the capital expenditure (together amounting to 2.1% of GDP) (*Policy Responses to COVID19*, 2020). A lot of priority was given to employers of last resort programs, and the government refrained from giving out UCT's (unconditional cash transfers). This was imperative to stimulate economic revival as a major proportion of the UCT's were either saved or spent on necessities; and did not translate into capital formation or investment. The government aimed at stimulating the economy by creating employment opportunities, which would in turn lead to income generation, and thereby economic revival. In order to promote a more equitable society, the government targeted certain communities and industries to promote economic revival (*Policy Responses to COVID19*, 2020).

Following were the outcomes: By November of 2020, the MGNREGA scheme had generated over 252 Crore person days of work (a 43% increase compared to the previous year) (Azim Premji University, 2021). Even though only 55% of workers found a place in the MGNREGA, it employed more than 10 million households (Azim Premji University, 2021).

***To help out the migrant labourers*:** In order to cater to their needs, the government organised the "Shramik special" train on May 1st (Ministry of Railways, 2020). The government also ordered the state governments to provide free food, transport, and shelter to these labourers (Ministry of Railways, 2020). By 7th April, 22,567 relief camps had been set-up to cater to their needs (58% of which were in Kerala) (Express News Service, 2020).

Supporting Micro, Small and Medium Enterprises (MSME's)

***Challenges*:** A survey in 2018-19 estimated the contribution of MSME's to be 30% of GDP, employing over 25% of India's total workforce. These industries contributed around 42%-48% of total exports; and the reduction in global trade further aggravated the economic slowdown of this sector (Periodic Labour Force Survey (PLFS), 2017-18). A survey conducted by a NFBC in the second half of May 2020 concluded that 50% of MSME's had reported a 20%-50% reduction in their earnings (Saritha, 2022). Clothing Manufacturers Association of India (CMAI), a trade group for the apparel industry, conducted a survey of 1500 of its members and found that at least 60% of them expected a

40% decline in revenue and that nearly 20% of them were considering shutting down their businesses after lockdown (Pti, 2020). Over 7 lakh people were employed by CMAI's 3,700 members, the majority of which were MSMEs (Pti, 2020). Another survey estimated that a majority of the MSME’s (60% of those surveyed) believed that it would take 6 months for business to return to normalcy (BW Online Bureau, 2020). One-third of the respondents revealed that they had temporarily shut-down their business (BW Online Bureau, 2020). This shutdown was more prominent in metro cities among retail and manufacturing verticals (BW Online Bureau, 2020). More than 50% of these MSME’s expected the government to offer tax discounts, and 36% of them expected interest-free loans or loans at very cheap rates (BW Online Bureau, 2020). Another survey revealed that 30% of MSME’s pivoted to an online model owing to the pandemic induced lockdowns which increased their revenue by 53% in the retail industry, and 65% in the educational sector (BW Online Bureau, 2020b). The India MSME forum, pointing to government support, revealed that in the absence of government support, 80% of MSME’s would be in deep trouble (Dewan, 2020).

***Activities by the government (Relief Packages)*:** (1) RBI reduced interest rates from 5.15% in February to 4% in May. The RBI also announced a three-month moratorium on repayment of loans (Ramaswamy, 2020); (2) The government also eased the regulatory requirements on tax filings and postponed the due dates (Ramaswamy, 2020); (3) The government established lending options for tiny, informal companies and street sellers on May 14. These include a unique lending program for street vendors that offers loans of up to INR 10,000 to finance their working capital and a 2% interest subsidy on microloans for a period of 12 months for loans up to INR 50,000. These initiatives are aimed at around 5 million street vendors (Ramaswamy, 2020); (4) The government also modified the definition of MSME’s in order to reach a larger audience, and align their incentives with those of MSME’s. The earlier definition of MSME’s was based solely on the capital invested, which was later modified to include annual turnover as well. The change in the definition of MSME’s led to classification of MSME’s on the basis of their current state, and not historic position; and thereby led to financial inclusion of more businesses. Additionally, the narrow definition for MSME’s caused negative complementarities to additional investment (not availing the benefits targeted to MSME’s) and thus resulted in many businesses remaining small (Ramaswamy, 2020).

Additionally, special packages were announced to improve the access to finance for MSME’s. These packages had the following components: (1) Provision of 300 trillion Rs of collateral-free loans to MSME’s meant to finance their working capital. The firms were also granted a 20% overdraft facility as part of the emergency credit line, with 100% government guarantee on the credit to stimulate banks to lend to them without the fear of bad debts. The government also announced a moratorium of 12-month repayment on these loans to support the liquidity of the firms (Ramaswamy, 2020); (2) The government ear-marked 200 billion Rs for the provision of subordinate debt to MSME’s (Ramaswamy, 2020). The provision of subordinate debt aimed at providing finance to MSME’s without them losing their stake in the business (if equity finance was used) or being subject to debt overhang problem (if debt finance was used). A credit facility equal to 15% of the promoter's stake in the MSME entity (equity plus debt) or INR 7.5 million (whichever is less) will be provided under the Scheme, and the credit advanced through financial institutions will be protected by the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMCE) (Ramaswamy, 2020). To support MSMEs, the CGTMCE will get an allocation of INR 40 billion (Ramaswamy, 2020). This is anticipated to save 200,000 struggling small and medium-sized businesses (Ramaswamy, 2020); (3) The government also set up a “fund of funds” for providing equity finance to firms with growth potential with a 100 billion Rs corpus. This fund expected to raise 500 billion Rs (Ramaswamy, 2020).

Outcomes: (1)These measures did not achieve their desired result as most of them were to benefit MSME’s in the medium-run (except provision of collateral free loans) and did not address their short-term survival requirements. (Mathew, 2020); (2) Even the measure of collateral-free loans did not accurately align the interests of the banks with that of business owners. The waiting period of 18 months to recoup the bad debts on the loans led the banks to refrain from lending to MSME’s to avoid short-term liquidity crisis. It was reported that only 36.7% of the targeted 3 trillion Rs were disbursed under the Emergency Credit Line Scheme. (Mathew, 2020)

Reduced autonomy of fiscal and monetary authorities

Challenges: (1) Reduced Fiscal space; following were the factors: (a) Increase in government expenditure: During COVID, there was paramount pressure on the government to simultaneously tackle several challenges. On the demand side, there was a fall in consumption expenditure due to loss of income and uncertainty about future income. On the supply side, businesses had taken a huge hit and were facing a liquidity crisis owing to the economic stand-still brought about by the lockdowns and reduced consumption expenditure. Moreover, several individuals had been pushed beyond the poverty line and social protection expenses were a must. Additionally, there was the need for quickly ramping up the health-care infrastructure of the country; (b) Fall in government revenue: The loss of income for individuals meant loss of tax revenue for the government. Additionally, the government had to engage in several regulatory measures (such as tax concessions) to ease the pressure on its citizens which further reduced the tax revenue of the government; (c) The simultaneous fall in government receipts and rise in government expenditures posed a serious threat to the economy. The fiscal deficit had gone up to 4.6% in 2019-20, way above the limit of 3%. A rise in the fiscal deficit further undermines the discretionary power of fiscal authorities in the following years (Chakraborty & Harikrishnan, 2022). While it is possible for the government to “grow out of its debt” by achieving a GDP growth rate greater than the real interest rate, such a strategy would seem implausible considering the state of the economy. Further, it would result in further inequalities (if the rate at which real income grows is less than the rate at which real GDP grows). Ultimately, this implies that the deficit has to be funded through seigniorage (creation of money) which leads to inflation (Chakraborty & Harikrishnan, 2022).

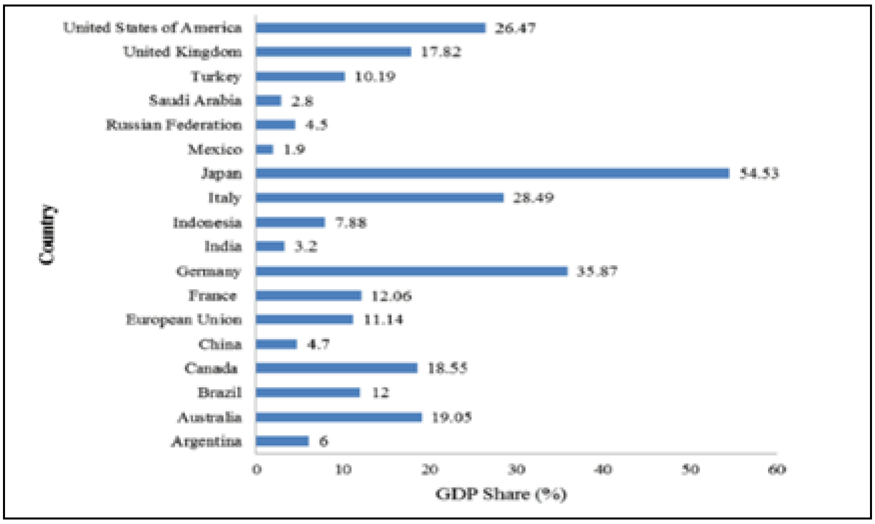

Figure 2: Fiscal Stimulus as share of GDP (as of March 2022)

Note. The above graph compares the magnitude of fiscal responses (as a % of GDP) in various economies. The graph reveals that the fiscal expenditure by the government (3.2% of GDP) is one of the lowest in the sample of countries.

The second factor leading to reduced autonomy of fiscal and monetary authorities is reduced Monetary space. In 2016, the Reserve Bank of India switched its monetary policy stance from discretion to rule-based (Chakraborty & Harikrishnan, 2022). Moreover, the establishment of an independent monetary policy committee (with democratic decision making) led to a further reduction in the independence of monetary authorities (Chakraborty & Harikrishnan, 2022). The monetary authorities had to maintain inflation within the tolerance band of 2% - 6%. Moreover, there was a crash in demand which seriously undermined the effectiveness of the monetary policy. Despite the liquidity measures introduced in April, the total standings of currency (24 Lakh Crore) and deposits (135 Lakh Crore) remained relatively unaffected in the first three weeks of the pandemic (*Economic Survey 2020-21*, 2021). Moreover, the liquidity measures introduced in May resulted in systemic liquidity overhang of 9 Lakh Crore (almost 50% of the total stimulus) (Garg & Garg, 2021). As a matter of fact, liquidity infusion had a neutral effect on the economy in the sense that it did not affect credit expansion or inflation (Garg & Garg, 2021). In the latter half of the pandemic (September onwards), the government infused liquidity as a means to propel investment and capital formation since solely increasing the money supply (without appropriate supply-side measures) would have ultimately resulted in stagflation (high unemployment and high inflation).

Activities of the government (Policy Coordination): (1)In the initial stages of the pandemic, the government followed an expansionary fiscal policy (through higher social protection expenditure) and an expansionary monetary policy (through liquidity infusion and cut in policy rates). However, as fiscal expenditure was mainly in the form of "helicopter drops" (unconditional transfers which were primarily spent on subsistence products); the monetary policy (carried out through policy rates and money supply) was relatively ineffective; (2) In its attempt to revive the economy (in October), the government pursued an expansionary fiscal policy mainly targeting increased investment and capital formulation. This was appropriately met on the demand side through liquidity infusion in the month of September (amounting to 5.9% of GDP) (*Policy Responses to COVID19*, 2020). The increased liquidity helped revive demand, while the fiscal spending helped ramp up production to meet the increased demand. The above point stresses the importance of policy coordination, as an expansionary fiscal policy would have led to excess supply, whereas an expansionary monetary policy would have led to excess demand (and thereby inflation); (3) The government monetized a major part of its deficits through liquidity infusion. The investment of banks in government securities increased by 21% (36.85 Lakh Crore in March of 2020 v/s 44.61 Lakh Crore in March of 2021) and that of RBI increased by 31% (10.4 Lakh Crore v/s 13.32 Lakh Crore) (Garg & Garg, 2021).

Outcome: Despite these efforts, the fiscal deficit in 2019-20 was 4.6% of GDP and dramatically rose to 9.5% in 2020-21 (Chakraborty & Harikrishnan, 2022).

Infrastructural and Logistic challenges in the Health-care space

Such unprecedented times call for innovative approaches, a requirement which was more than satisfied by the Indian policy-makers. To combat the shortage of oxygen tanks, the Indian government leveraged close to 900 train coaches to assist in the delivery of more than 36840 tonnes of oxygen (9 Years of Seva, SushasanGaribKalyan Report, 2023). Moreover, the air force was deployed to assist in the transportation of cryogenic tankers (9 Years of Seva, SushasanGaribKalyan Report, 2023). Owing to the shortage of hospital beds, 4176 railway coaches were transformed into make-shift quarantine facilities (9 Years of Seva, SushasanGaribKalyan Report, 2023). In order to keep a positive spirit during COVID, the prime minister urged the citizens to show their gratitude towards the front-line workers by clapping for 5 minutes on 22nd March, 5:00 p.m (Desk, 2020). This initiative not only made the frontline workers feel appreciated but also served as a reminder of the unity which exists within us (Desk, 2020). The Covaxin (created by local company Bharat Biotech) and the AstraZeneca vaccine received emergency use authorizations (EUA) from India's Central Drugs Standard Control Organization (CDSCO) on January 3, 2021(*Policy Responses to COVID19*, 2020). On January 11, 2021, the prime minister stated that the largest vaccination program in history would begin on January 16 and target immunizing nearly 300 million people over the following few months (*Policy Responses to COVID19*, 2020).

Explaining India's Economic growth trajectory

There have been several improvements in the structural landscape of the country which have positively impacted its growth trajectory. In this section, we introduce two economic models which have been at the heart of economic growth theories; and review the efforts of the government in promoting economic growth against the backdrop of these models.

Regulatory Changes in the Indian economy over the past decade

A considerable amount of research has gone into explaining why different countries grow differently; and whether absolute convergence is actually possible. The success of these models being estimated is measured by the Solow residual, which refers to the difference between the observed output (actual GDP growth rate per worker) and the estimated output (the estimated GDP growth rate per worker). The "institution hypothesis" is one such theory which accurately models the growth trajectories of different economies; and has a Solow residual close to zero (that appropriately predicts the cross-country differences observed in the growth rates of economies) (Acemoglu et al., 2001). The institution hypothesis aims at laying the framework for conditional convergence among economies, that is, countries with similar institutional features would converge to similar levels of GDP and GDP per capita. Despite the sensitivity checks performed in the paper, many economists still argue on the internal validity of the model on the grounds that the "exclusion constraint" of using settler mortality as an instrument is not fully justified. These arguments, however, are based on theories rather than facts; and a potential link of causality between the GDP growth rate and settler mortality has not yet been developed. We employ the "institution hypothesis" model in explaining India's economic growth owing to its empirical validity and appeal. The "institution hypothesis" draws our attention to two key results: (1) The level of current institutions is the primary factor determining economic growth in the long-run. Thus, conditional convergence is predicted among economies with similar institutional features. (Acemoglu et al., 2001); (2) Institutions are sticky, that is, there is a high degree of correlation between the strength of institutions in successive periods. (Acemoglu et al., 2001)

The basic micro-founding theory which gives the rationale for the former result is the effort-choice model; wherein the greater the level of expropriation, lower is the incentive to work higher by substituting more of consumption for leisure (Acemoglu et al., 2001). Whereas, the basic explanation for the latter comes through the strength of the government (Acemoglu et al., 2001). The "political business cycle" present during the 1990's has been replaced by the "political growth cycle" in recent years, wherein the government's focus is on achieving short-term economic goals in order to be re-elected for the upcoming tenure. Thus, if a government believes that they need to deceive the public through short-term results; they would not focus on establishing and achieving long-term goals.

In its simplest terms, expropriation relates to the proportion of the earnings of the individual not accruing to him. However, owing to the several functions performed by the government in uplifting an equitable society, using such a restricted definition for institutions would certainly omit the importance of public expenditure in economic growth. If the amount being expropriated through taxes is spent on building a more equitable society, it would ultimately result in economic growth. Thus, we include all those factors which directly relate to expropriation and inclusion. The key changes in the institutional framework of India are:

(1) Move towards a formal economy: Formal economy refers to the portion of the economy who are formally registered under the government, and are subject to regulation by the government. The emergence of a formal economy is beneficial to the government (as these entities pay taxes, which is the primary source of government revenue), the entity (as they are entitled to the different benefits given by the government), and the economy as a whole (lower levels of black money, better accountability, etc). Several efforts have been taken over the past decade to formalize different sectors of the Indian economy.

The key activities which have led India towards a formal economy are: (1) Since April of 2020, 2.09 crore youth between the ages of 18-25 have been added to the employee provident funds organisation (EPFO); and thus have become a part of the formal economy (9 Years of Seva, SushasanGaribKalyan Report, 2023); (2) The introduction of Goods and Service Tax (GST) was a right step in this direction, which has led to an increase in the number of businesses paying taxes by 50% (3.4 million) (Pti, 2018); (3) The use of technology, streamlining of Aadhar, and the government's push towards a cash-less economy have moved several businesses into the formal sector (9 Years of Seva, SushasanGaribKalyan Report, 2023); (4) The "E-Shram" portal (the first ever national database for unorganized workers) has on-boarded over 28.85 Crore unorganized workers (9 Years of Seva, SushasanGaribKalyan Report, 2023).

Despite these measures, 90% of workers are employed in the informal sector in India (contributing over 50% of the GDP) (Periodic Labour Force Survey, 2017-18). The PLFS survey reveals that 75% of workers have been informally employed. It was further revealed that the share of workers in the formal sector stood at only 9.7% (47.5 million) (Periodic Labour Force Survey, 2017-18).

(2) Tax Reforms: Prior to the taxation reforms, the tax to GDP ratio for the centre and states were 16.5% (Sahoo, 2022). Only 3% of the population paid income taxes, signalling large-scale tax evasion (Sahoo, 2022). In 2008, it

was estimated that the government lost 2 Lakh Crore in revenue due to tax evasion (Sahoo, 2022).

The various improvements in the taxation structure of India are: (1) The effective tax rate for people earning less than 15 Lakh Rs has declined from 19.22% in 2013 to 10.4% in 2022 (9 Years of Seva, SushasanGaribKalyan Report, 2023); The retrospective tax and angel tax have been appealed (9 Years of Seva, SushasanGaribKalyan Report, 2023); (2) The introduction of GST simplified the tax system for the country by replacing several indirect taxes with one tax. Moreover, the technology driven procedures associated with the collection of GST (online registration, e-filing of returns, etc.) have raised tax compliance. Moreover, the number of GST registrations have grown from 65 Lakh to 1.4 Crore leading to an increase in GST revenue from 8.76 trillion to 13.25 trillion between 2018-19 and 2022-23 (Goyal, 2023); (3) In September 2019, the government reduced the corporate tax rates for existing companies (from 30% to 22%) and for new manufacturing companies (25% to 15%) (Pti, 2023). The effective tax rate for the former fell from 34.94% to 25.17%; whereas that of the latter fell from 29.12% to 17.01% (Pti, 2023). Reducing the tax rate has two effects: base effect (increase in tax collection owing to increase in tax base) and the rate effect (fall in tax collection owing to fall in tax rate) (Mach, 2019). This gives us the rationale for the laffer's curve relationship, which points to the presence of an optimal tax rate (Mach, 2019). Even though the tax rate was changed to 22% for existing businesses in line with the "laffer curve" relationship; whether the tax rate is optimal is yet to be uncovered (Karan Bhasin, 2019). In 2019-20, these tax reforms led to a fall in government revenue by 1.28 Lakh Crore (Pti, 2023). In the succeeding year, the tax collection of the government reduced by over 1 Lakh Crore due to these reforms and tax exemptions (Pti, 2023). The tax collection of the government is showing signs of improvement as the effects of COVID fade away. In 2019-20, the base effect had not fully come into play (owing to the lags involved in setting up and expanding businesses); following which the economic scenario completely changed. Thus, whether the base effect would overcome the rate effect for the reduction in taxes is yet not clear; and depends on future economic conditions; (4) In order to reduce tax evasion, the government introduced several measures to improve tax administration such as Aadhar-Pan linking, project insight (income tax initiative to monitor high value transactions), and e-way bills (Sahoo, 2022).

A reduction in the tax rate is clearly welfare enhancing for the tax-payer as a greater proportion of their income is retained by them. From a macro-economic point of view, a lower tax rate clearly implies a lower level of expropriation of earnings; and thus incentivizes individuals to work harder. Moreover, a lower tax-rate (compared to other emerging market economies) implies higher competitiveness of Indian firms, thereby attracting FDI flows. On the other hand, easier compliance and better tax administration lowers incidences of tax evasion, thereby broadening the tax base.

(3) Reduction in corruption: Corruption directly relates to unlawful expropriation of wealth from the economy. Increase in incidences of corruption not only increase black money which reduces government revenue leading to the "free-rider problem" (the tax evaders and corrupt officials free-ride on the tax-payers contributions); but they also have detrimental effects to the moral and social conduct in an economy. In simpler words, in an economy with 'n' individuals, where 'n-1' are corrupt; the n^{th} individual is forced (incentivized) to be corrupt in order to be able to compete with others. In the absence of corruption, the profits of Public Sector enterprises would have gone up by 20% (as of 2008) (International Market Assessment India Pvt. Ltd., 2008). It was further revealed that if corruption in India were equivalent to those in Scandinavian countries, Investment would increase by over 12% annually resulting in additional annual GDP growth of 1.5% (International Market Assessment India Pvt. Ltd., 2008).

Several reforms in India have tried to abolish corruption and black money from the economy. Some of these are: (1) Even though it did not serve its intended impact of reducing black money (since most of the black money is held in the form of assets); the act of demonetization led India to become a more transparent economy (through wide-spread adoption of internet banking) and reinstated the importance of "rule of law" in the economy (Kalyani, 2016); (2) The establishment of GeM portal for government procurement of goods and services has dramatically lowered the incidences of corruption in India (9 Years of Seva, SushasanGaribKalyan Report, 2023). The prices on the GeM portal are 9.5% lower than other platforms (9 Years of Seva, SushasanGaribKalyan Report, 2023). Since its inception, there has been procurement of 3.9 lakh crore worth through the portal. (9 Years of Seva, SushasanGaribKalyan Report, 2023); (3) Moreover, 3.99 crore fake ration cards and over 4.11 crore fake (duplicate) LPG connections have been cancelled (9 Years of Seva, SushasanGaribKalyan Report, 2023).

(4) Social inclusion: It is a celebrated view that growth without development ultimately does no good to the economy. While we can justify the above position on humanitarian grounds, the above argument is also valid from an economic lens. In a span of 5 years, the Indian economy saw a significant decline (9.89% points) in multidimensional poverty (from 24.85% in 2015/16 to 14.96% in 2020/21) (9 Years of Seva, SushasanGaribKalyan Report, 2023). A significant proportion of this decrease came from the rural areas (32.59% to 19.28%) (9 Years of Seva, SushasanGaribKalyan Report, 2023). The reduction in inequality has helped boost the domestic demand of India and has made it less vulnerable to external vulnerabilities. The monetary tightening stance of USA, Euro area, and UK over the past year through increasing the interest rate has forced India to raise interest rates in order to avoid capital flight (massive outflow of capital owing to breach of the Interest rate parity which gives investors an opportunity to make arbitrage profit). Additionally, the monetary tightening in the USA (which is India's top exporting country) and the global recession could negatively impact the trade balance and growth prospects for the economy. Despite these risks, India has grown and is projected to grow at a high rate. Such a strong resilience to global conditions is testament to the domestic demand potential of India, which is further testament to the reduction in inequalities. Higher levels of inequalities imply concentration of a majority of the wealth

in the hands of few. This would result in lop-sided development since goods would be demanded only on either side of the cost spectrum (basic necessities or luxuries). This would also result in a reduction in the velocity of circulation of money, which has a negative impact on domestic demand and economic growth. Additionally, reduction in inequalities ultimately result in removal (lessening) of the market failures associated with poverty. The poverty trap refers to the concept wherein individuals stay poor because they are poor. The basic rationale for this argument is that poverty leads to greater engagement with trivial problems; which in turn leads to lower bandwidth for performing important activities (those which may lift them out of poverty); which translates to poor productivity; and more poverty (Bryan, 2019). This vicious cycle continues, thereby pushing them back into extreme poverty. A study of market traders in India points to the presence of the above poverty trap (Bryan, 2019). The market traders in India used to get up at 3 a.m. and take a loan of 1000 INR (at an interest of 100 INR) to fund their inventory; and further sell their produce for 1200 INR (Bryan, 2019). Despite the opportunity of doubling their income in 49 days by saving 1 INR daily; they never took advantage of this opportunity and chose to take out loans daily (Bryan, 2019). The above piece of evidence points to the existence of a "psychological poverty trap". The Galor-Zeira model further reinstates the effect of inequalities on economic growth (Galor&Zeira, 1993). The model predicts that credit market failures and indivisibility of human capital lead inequitable income distribution to have permanent effects (in terms of economic growth and future income inequalities) (Galor&Zeira, 1993).

Several activities undertaken by the Indian government have helped bridge the inequality gap. However, in this part, we solely focus on those activities of the government relating to the provision of basic necessities. The key activities and achievements are listed below: (1) Over 80 crore people in India are getting free food grains (9 Years of Seva, SushasanGaribKalyan Report, 2023); (2) In the past decade, over 11.88 crore households have been provided with tap water connection (9 Years of Seva, SushasanGaribKalyan Report, 2023); (3) More than 3 crore houses have been built in the rural and urban areas (9 Years of Seva, SushasanGaribKalyan Report, 2023); (4) In order to promote social inclusion, over 21,801 services have been made available to all citizens through the Umang app (9 Years of Seva, SushasanGaribKalyan Report, 2023); (5) The cost of using the internet has dramatically fallen by over 97% (from 308 INR per GB of data to 9.94 INR per GB of data) (9 Years of Seva, SushasanGaribKalyan Report, 2023); (6) Electricity connections have been made available to over 2.86 crore households (9 Years of Seva, SushasanGaribKalyan Report, 2023); (7) Over 37 Crore health accounts have been created, and 1.59 Lakh Ayushman Bharat Wellness cards have been issued (9 Years of Seva, SushasanGaribKalyan Report, 2023); (8) Telephone connections in rural India have increased from 37.7Crore to 51.78 Crore in the last 9 years (9 Years of Seva, SushasanGaribKalyan Report, 2023); (9) Over 1.98 Lakh gram panchayats have been connected with optical fibre (9 Years of Seva, SushasanGaribKalyan Report, 2023).

Innovation

The importance of innovation in accelerating economic growth cannot be overstated. As a matter of fact, innovation could be considered the one key factor accounting for the continued growth of some developed economies even after reaching steady-state. The Romer model explicitly highlights the importance of innovation in achieving growth (Romer, 1990). According to the model, the production function depends on inputs which are classified into objects and ideas (Romer, 1990). The non-rivalry of ideas (leading to increasing returns to the variable factor) results in constant returns to scale in the production function (Thus making perpetual growth possible) (Romer, 1990). According to the Romer model, economic growth at steady state comes from changes in the stock of knowledge (which in turn depends on the research productivity and the proportion of human capital devoted to research) (Romer, 1990). Despite its appeal, the model fell short in explaining a few observed characteristics (mainly, why economic growth is not an explosive time series as predicted by the model). To overcome this, a paper proved that the research productivity is decreasing in research effort; thus as more research effort is undertaken, the research productivity increases at a decreasing rate (Bloom et al., 2020). As India has been relatively backward in terms of innovation (except space and pharmaceuticals); there is a tremendous opportunity to achieve economic growth through innovation (since, initially research productivity would be very high). As a matter of fact, the 3.5% growth gap (only 5% of the required 8.5% could come from traditional sources) for the Indian economy can be easily achieved through innovation (Vinanchiarachi, 2022). The above theory has identified two key sources to propel economic growth: Human Capital (Romer, 1990) and Proportion of human capital devoted to research (Romer, 1990)

While the former could be developed through additional investment in education and training; the latter points to greater incentives for innovation. In this context, the importance of intellectual property rights cannot be overstated. Additionally, evidence from several countries show a negative correlation between research productivity and government expenditure on R&D (Vinanchiarachi, 2022). This helps us formalize the ideal role of the government, which would be to incentivize the private sector through grants, patents, strict enforcing of intellectual property rights, and suitable infrastructure. Additionally, the government should take efforts in improving the human capital of the economy and fostering a climate conducive to innovation.

There have been several changes in the economic environment of the world due to the introduction of technology and non-rivalry of knowledge. Omitting this aspect would give us a half-baked understanding of India's economic growth. Thus, we have employed the Romer model to account for the changing economic landscape and the importance of technology in achieving perpetual growth. Moreover, the diminishing returns to research productivity makes such models increasingly appealing for developing countries like India which are relatively backward in terms of research effort (leading to high growth potential through technological initiatives).

In this section, we review the key changes in the Indian economy which have fostered innovation through the variables mentioned above.

(1) Human Capital development: A considerable amount of resources have been spent by the government in improving the human capital of the country. These resources have been spent on improving accessibility to education, bettering the quality of education, and providing skill training to individuals.

The key efforts of the government are listed below: (1) The National Education Policy was introduced after nearly 4 decades in 2020; and the National Council Framework (which contains guidelines on conducting education at a school and college level) has been revamped to include a more scientific approach to education focussing on all aspects of development. (9 Years of Seva, Sushasan Garib Kalyan Report, 2023); (2) 7 IIMs and IITs have been established in order to reduce the "brain drain" by retaining and fostering intellectual capital. Additionally, 15 AIIMS and 225 medical colleges have been established resulting in an increase of medical seats by a factor of 60,000 (9 Years of Seva, SushasanGaribKalyan Report, 2023); (3) In order to reduce the structural mismatch, over 5.23 lakh training centres have been established which have trained over 5 Crore individuals. Moreover, WRI Trichy is setting up infrastructure throughout the country to train youth (9 Years of Seva, SushasanGaribKalyan Report, 2023); (4) The introduction of Atal Tinkering labs at school level, and the Atal Innovation mission at college level has significantly improved the human capital. (Vinanchiarachi, 2022)

(2) Improving the business climate:India has risen 79 ranks in terms of ease of doing business, and there has been a significant reduction in the filing fees (9 Years of Seva, SushasanGaribKalyan Report, 2023). The "Make in India" campaign could be viewed as a right step in this direction.

The key initiatives under the "Make in India" campaign are: (1) Removal of restrictions on FDI on several sectors such as insurance, railways, defence, etc. (Verma, 2020); (2) Establishing an investor facilitation cell under the scheme of "Invest in India" to help guide investors through the various stages. (Verma, 2020); (3) Portals like Shram-Suvidha, eBiz, etc. were launched to help leverage technology in making business operations easier. (Verma, 2020); (4) The government also provided a relaxation in the permits and licences required to start a business. (Verma, 2020); (5) Several other schemes, such as "Skill India", "Start-up India", and "Digital India", have been integrated with the "Make in India" scheme. (Verma, 2020); (6) The government also established several new industrial corridors, with plans to open up more in the future. (Verma, 2020); (7) The government also introduced the "National Intellectual Property Rights Policy" in 2016 to incentivize innovation (Verma, 2020).

(3) Transport: Over the past decade, there have been several improvements in the transport infrastructure of the country. Such changes facilitate easier movement of people, goods, and services across different regions of the country and help transform regional development into national development. These changes also have key implications on migration patterns (better access to transport facilities would help equate the productivity of labour across different regions of the economy), consumer welfare (regional monopolies could be avoided through better transportation facilities), production efficiency, and foreign investment. In the context of innovation, better transportation facilities motivate individuals to set up their businesses and lead to an increase in competitiveness (due to reduction in geographical barriers to trade).

The key changes in the transport infrastructure of India are: (1) The metro services expanded from 5 cities in 2014 to 20 cities in 2023 (9 Years of Seva, SushasanGaribKalyan Report, 2023); (2) The coverage of national highways extended to span over 145155 kms, which marked an increase of over 50,000 kms in the past decade (9 Years of Seva, SushasanGaribKalyan Report, 2023); (3) Rural road connectivity tremendously improved to cover 99% of rural areas in India (9 Years of Seva, SushasanGaribKalyan Report, 2023); (4) 111 waterways were declared as national waterways under the National Waterways Act, 2016 (9 Years of Seva, SushasanGaribKalyan Report, 2023); (5) Number of operational airports doubled in this period (9 Years of Seva, SushasanGaribKalyan Report, 2023).

(4) Foreign Direct Investment:There are several advantages of increasing foreign direct investment (FDI) in a country. Firstly, it creates employment opportunities which are of paramount importance for a country like India. To this effect, PWC has proposed to hire 10,000 employees over the next 5 years (Kumari, 2022). Secondly, it facilitates cross-border flow of technological know-how, thereby serving as an impetus to technology catch-up. The increased competitiveness results in technology adoption and forces firms to improve on their efficiency. Lastly, FDI helps several start-ups grow through capital infusion. The Indian government has majorly revamped India's FDI rules in order to be a more lucrative investment opportunity (9 Years of Seva, SushasanGaribKalyan Report, 2023). This has led to a large increase in FDI flows into India (64% of the FDI inflow of the last 22 years could be attributed to the last 9 years) (9 Years of Seva, SushasanGaribKalyan Report, 2023). Despite global recession and policy tightening around the world, Indian exports (Goods and Services) hit a record of $770.18 billion (9 Years of Seva, SushasanGaribKalyan Report, 2023). Moreover, this year marked the highest ever FDI inflow of $4.8 billion (9 Years of Seva, SushasanGaribKalyan Report, 2023). The above is testament to the increased competitiveness of Indian firms and cordial international relations of the country. Due to its regard as one of the most promising economies, India is bound to see a large increase in FDI over the coming years which would further accelerate India's growth. The ongoing trade tensions between China and major developed economies has companies looking for "greener pastures" for overseas production (Verma, 2020). This presents India with immense opportunities to attract FDI and become the "manufacturing hub" for the world (Verma, 2020). In line with this, the government has integrated the "Assemble in India" into the "Make in India" scheme (Verma, 2020).

(5) Financial Inclusion:Several credit market failures like adverse selection, moral hazard, and collateral requirements hamper economic growth and further widen the inequality gaps. The macroeconomic importance of capital in achieving economic growth was studied by Gollin, and he concluded that capital accounts for 20% of the economic growth (Gollin, 2002). On the micro-level, a study of firms in Sri-Lanka found that reallocation of credit towards the un-funded firms generated large returns (5% monthly) (Mel et al., 2008). These evidence point to the importance of capital in achieving economic growth and the presence of credit market failures preventing efficient allocation of capital. Thus, financial inclusion is imperative to further economic growth and has direct implications on innovation (inaccessibility to credit hampers set up or expansion of businesses which lessens competition and thereby reduces the motivation to innovate).

The key steps taken by the Indian government to overcome these credit market failures are (1) Loans worth 7351 crores have been given to scheduled caste and scheduled tribe beneficiaries (9 Years of Seva, SushasanGaribKalyan Report, 2023); (2) The government has earmarked 20 crore in agricultural credit to be provided in the Fiscal year 22-23 (9 Years of Seva, SushasanGaribKalyan Report, 2023); (3) Over 727 crore Mudra loans have been given to women (9 Years of Seva, SushasanGaribKalyan Report, 2023); (3) Through the Pradhan Mantri Jan-Dhan Yojana, over 48.57 Crore bank accounts have been opened. As a result, the Fin-tech adoption rate in India (87%) is way higher than the world average of 64% (9 Years of Seva, SushasanGaribKalyan Report, 2023); (4)Through the Pradhan Mantri Mudra Yojana, the government has disbursed over 39.65 Crore micro-credit loans (9 Years of Seva, SushasanGaribKalyan Report, 2023).

Regulatory reforms and making compliance easier
The existence of unnecessary regulatory reforms lead to delays in business transactions and have serious implications for the export and import industries of a country. In the past decade, 39,556 unnecessary compliances have been scrapped and over 1500 archaic laws have been abolished (9 Years of Seva, SushasanGaribKalyan Report, 2023). The number of approvals needed to start a business have dramatically reduced from 14 to 3, which has led India to jump 79 ranks in terms of ease of doing business in a span of 5 years (142 in 2014 v/s 63 in 2019) (9 Years of Seva, SushasanGaribKalyan Report, 2023). The insolvency and bankruptcy codes allow businesses to wind-up their operations more easily (9 Years of Seva, SushasanGaribKalyan Report, 2023). Additionally, the national single window system has ensured easier compliance (9 Years of Seva, SushasanGaribKalyan Report, 2023). The labour laws in India were very complex, some of which dated back to the previous century (9 Years of Seva, Sushasan GaribKalyan Report, 2023). These labour laws negatively impact employment opportunities and have serious concerns for the well-being of labourers. Several labour law reforms have been undertaken in the past decade, along with the establishment of four new labour codes. Additionally, over 1500 union laws have been repelled since 2014 (9 Years of Seva, SushasanGaribKalyan Report, 2023).

Following were the outcomes of the above mentioned initiatives: As a result of these, India has emerged as the third largest start-up hub after US and China (9 Years of Seva, Sushasan Garib Kalyan Report, 2023). There has been a 100 fold rise in the number of start-ups, which have led to the creation of 23 Lakh direct and indirect jobs (9 Years of Seva, SushasanGaribKalyan Report, 2023). 1.67 Lakh new companies have been registered in this Fiscal Year covering 669 districts (9 Years of Seva, SushasanGaribKalyan Report, 2023). The number of patents granted dramatically rose from 6326 in 2014 to 34153 in 2022 (9 Years of Seva, SushasanGaribKalyan Report, 2023). Additionally, more than 1,60,000 crore has been mobilized through IPO's between 2021 and 2023 (9 Years of Seva, Sushasan Garib Kalyan Report, 2023). Over the past 9 years, the number of unicorns in India grew to over 100 (from 4 in 2014) (9 Years of Seva, SushasanGaribKalyan Report, 2023). As a result of these efforts, India has jumped 41 spots in the global innovation index (from 81 in 2015 to 40 in 2022) (9 Years of Seva, SushasanGaribKalyan Report, 2023).

2. Conclusion

The baneful situation accompanying COVID led to a biased view relating to the success of Indian policy-makers. The economic revival of India and its promising future prospects did help in partially offsetting this bias. However, doubts are yet being raised on the efficiency of the Indian government. Reviewing the challenges of the policy-makers makes it clear how obvious responses are economically impractical. Understanding the trade-off faced in taking these policy decisions helps us appreciate the efforts of the government. Moreover, several policies and reforms (such as introducing GST and demonetization) which seemed harsh at the time have revealed themselves to be disguised blessings. The inherent trade-off between short-term and long-term growth has led to several misconceptions regarding the success of Indian policy makers. However, the prescriptions from celebrated economic growth models give rationale to the long-term policies introduced in the past decade; and help reveal how they have contributed towards India's high growth trajectory.

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