

Original Article

# Analysis of Economic Resilience: How Different Economies Bounce Back from Shocks

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**Abstract** - The world is characterized by three types of economic frameworks- Centrally planned, Mixed and Market. Irrespective of the type of economic framework followed, every country is susceptible to economic shocks, which are disturbances in an ongoing economic process. This research paper explores the relationship between the type of economic framework that a country follows and its economic resilience. Although several studies have been carried out analyzing country-specific economic recovery after an economic shock, there remains a gap in understanding the influence of economic framework in the process. Given the current level of global interdependence, understanding the resilience of different economies to an economic shock is imperative for government officials and professionals in the field of economics. The research conducted dives into understanding the reaction of various economic frameworks in times of crisis.

**Keywords** - Economic frameworks, Economic recovery, Economic shock, Resilience.

## 1. Introduction

Our global landscape primarily consists of three distinct types of economies- Market, Central and Mixed. Market and Mixed Economies are characterized by the conservation of consumer sovereignty, allowing the market forces of Demand and Supply to take control (with some government interventions in mixed economies). In contrast, a Centrally Planned Economy functions entirely separately from the other two types, with major decisions regarding the economy being taken by the government. Irrespective of an economic framework, all economies are susceptible to certain unexpected and significant events which hold the potential to disrupt their normal functioning. Such events are termed as Economic Shocks and their primary examples include natural disasters, pandemics, wars, political disruptions and financial crises.

It would be safe to say that economic shocks tend to have direct and adverse effects on a country's economy. They create disturbances in the ongoing economic processes and can sometimes even force economic agents to withdraw themselves from their respective economic activities. A natural disaster, for example, can start a series of chain reactions that start with the loss of economic assets and human capital, leading to a leftward shift in the Production Possibility Curve; it is also speculated that the losses resulting from disasters may impact the distribution of income and contribute to poverty levels. (Groeschl, 2020) Wars also lead to comparable results and can aggravate several pre-existing adverse global economic trends, such as rising inflation, extreme poverty, increasing food insecurity, deglobalization, and worsening environmental degradation

(Kenneth Rogoff, Harvard University). In a nutshell, these economic shocks are undesired for any economy, for they can lead to numerous long-term effects ranging from declining Gross Domestic Product (GDP) to unemployment and inflation. Consequently, it is vital to address such events effectively. Various governments, therefore, try to take appropriate steps in the form of fiscal, political or prudential policies to mitigate the effects of such events successfully.

Via this study, I investigate whether the economic framework of certain countries has an impact on the methodology followed by them to deal with certain economic shocks. With evidence from various economies, plan to observe how different countries have reacted to various economic shocks. Economic recovery, defined as the process by which businesses and local economies return to conditions of stability following a disaster (Chang, S. E., & Rose, A. Z, 2012), is a critical aspect of mitigating the long-term impacts of economic shocks. This research holds significance provided the current state of the globe and its continuously evolving dynamics characterized by prevalent uncertainties. With the current level of interdependence in the world, understanding how different economic systems react to economic shocks is essential for government officials and professionals in the field of economics.

While existing research provides valuable insights into economic recovery post-economic shocks, there remains a notable gap in understanding the role played by economic structures in shaping responses and whether the government's intervention helps a country recover quickly from an economic shock.



Numerous country-specific studies exist, but none of the research conducted dives into the relationship between a country’s economic framework and economic recovery. Examples of such pieces of literature include “Economic Recovery: Sustaining U.S. Economic Growth in a Post-Crisis Economy” by Craig K. Elwell (2013), which reveals the negative impact of the 2007-2009 recession in the USA and the period of economic recovery that followed. The literature also delves into the fiscal and monetary policy actions taken during the recovery.

Similarly, an insightful study by Jiang et al. (2022), “Analysis on the Economic Recovery in the Post-COVID-19 Era,” provides an in-depth analysis of China’s post-pandemic economic recovery and sheds light on the various economic policies and programs designed to sustain robust economic growth.

Again, Bhaskaran et al. (2021), in their study “Performance of Indian Economy in Pre and Post Covid-19 Pandemic,” only focus on the Indian economy as a whole and research the economic conditions of India pre-covid and the consequent impact of the pandemic upon the country’s economy.

The rest of the paper is organized as follows: The following section talks about the methodology and data sources used. Sections III, IV, and V talk about the onset of the economic crisis and the consequent recovery in China, India and the USA respectively. Finally, Section VI provides some concluding remarks and suggestions for future research. References and Citations have been listed at the very end of this research paper.

## 2. Methodology

A deliberate selection of prominent leading economies, namely the United States, China and India, has been made for a thorough examination of Market, Centrally Planned and Mixed Economies respectively.

Furthermore, this research centres around the most recent global pandemic, COVID-19, as the primary economic shock under discussion. This intentional focus on the pandemic helps maintain research simplicity and uniformity. The recovery and economic status of each country to the pandemic has been analyzed by observing 4 things: the economy before, during and after COVID-19 and the methods and policies implemented to deal with the economic shock. GDP growth percentage serves as a crucial metric to analyze the economic performance of the three economies selected. Furthermore, the research paper also incorporates additional indicators like unemployment rates and per capita income to provide a comprehensive understanding of the pandemic’s impact on each country’s economic landscape.

This study also explores both empirical and secondary data to enhance the understanding of complex economic dynamics. Data has been collected from research papers, online sites, journals and various other sources.

## 3. Economic Crisis & Recovery: China

Before delving into an in-depth exploration of China’s economic recovery in the aftermath of COVID-19, it is important first to establish a foundational understanding of China and its economic framework. The economic reforms initiated by Deng Xiaoping have characterized China as a centrally planned economy. This type of economic framework involves substantial state-owned enterprise sectors.

Within this economic model, the Chinese government plays a direct and influential role in steering the trajectory of the country’s economy. This intervention takes various forms, ranging from the formulation and implementation of five-year plans to the strategic planning of economic objectives and targets. By doing so, the Chinese government actively manages and guides economic activities, aligning them with broader national development goals.

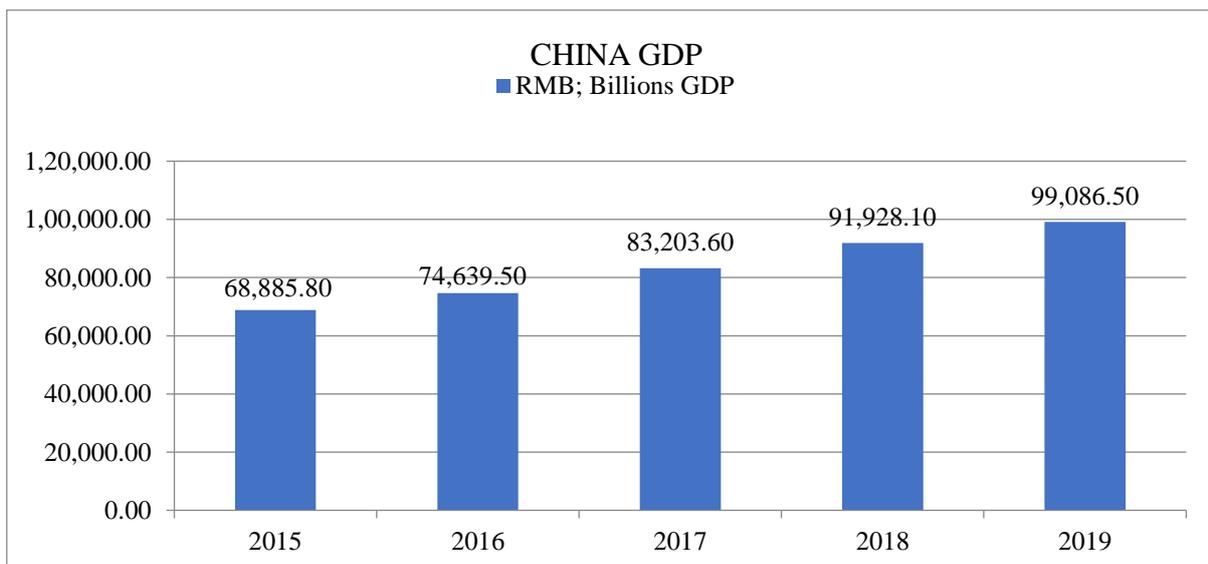


Fig. 1 China’s GDP Growth 2015-2019

The Coronavirus, which was officially declared a pandemic by the World Health Organization originated from Wuhan, China. Before the onset of the pandemic, however, the Chinese economy was developing at a decent rate.

The completion of its 13<sup>th</sup> five-year plan marked a significant achievement as its Gross Domestic Product reached around \$14.89 trillion, accounting for 16 per cent of the global economy and contributing about 30 per cent to world economic growth. The country also saw its per-capita GDP reach \$10,276- surpassing the \$10,000 mark for the very first time- reflecting the nation’s remarkable economic development. [The State Council, The People’s Republic of China]

The data above in Figure 1 shows the constant growth in China’s GDP from 2015-2019, reaching a GDP of 99,086.5 billion yuan in 2019 ~ 7.8% increase over the previous year of 2018.

$$\% \text{ change} = (Final - Initial) \div Initial \times 100$$

$$\begin{aligned} &\rightarrow \frac{99,086.5 - 91,928.1}{91,928.1} \times 100 \\ &= 0.07786 \times 100 \\ &= 7.786\% \end{aligned}$$

and a total % increase of 43.84% over 4 years (2015- 2019). Thus, in the years leading up to the COVID-19 pandemic, China’s economy had demonstrated impressive growth.

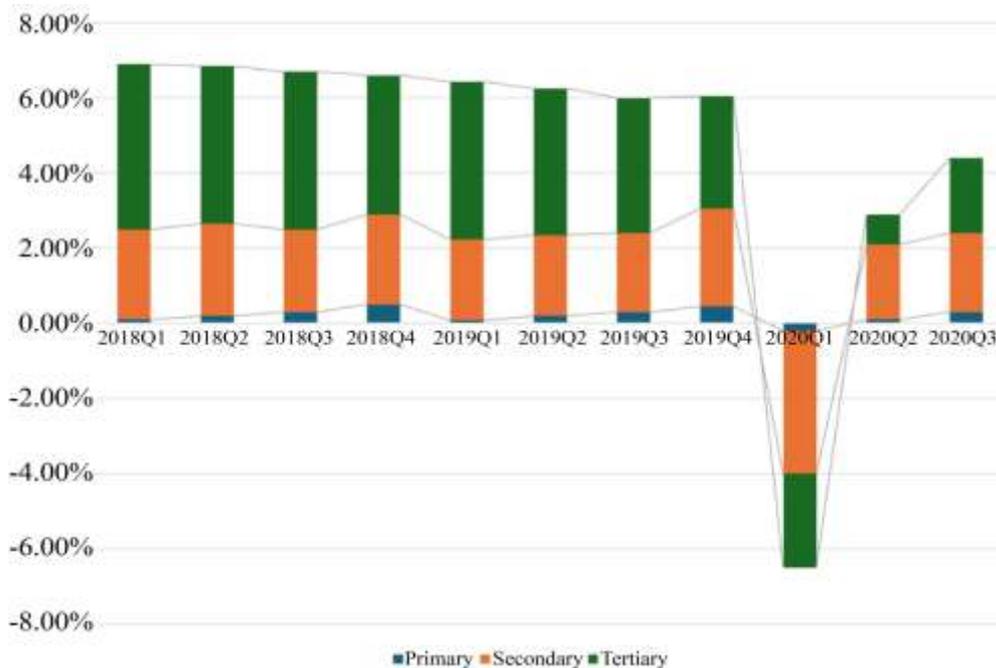


Fig. 2 China sector wise quarterly GDP growth

In December 2019, the first few cases of COVID-19 were recorded, and on 12 January 2020, the Chinese authorities shared the sequence of a novel coronavirus. COVID-19 was officially declared a pandemic on 11 March 2020 by the WHO. This was the start of what might be one of the most severe economic shocks of the recent century, as it resulted in recession, unemployment, supply chain disruptions and trade reduction throughout the globe. Due to this pandemic, the global economy showcased a significant economic contraction in 2020. Several advanced economies, including the UK, Japan, Germany, and France, experienced a decline of 1.98%, 4.28%, 3.83%, and 7.54%, respectively, in their GDPs. The Chinese Economy was no exception. As per the National Bureau of Statistics of China (2020), the GDP of China dropped to 6.8% in the first quarter of 2020 Figure 2. (approximate values) shows almost a constant rate of sector-wise quarterly GDP growth in China till the 3<sup>rd</sup> Quarter of FY2020. From 2018Q1 to 2019Q4, the GDP is growing at a steady rate, resting at an

approximate 6% growth in 2019Q4. However, a steep fall is observed in 2020Q1, where the economy falls by around 12%, reaching a growth rate of -6% due to the onset of the pandemic. What is particularly striking in the case of China is the swift and efficient recovery made by the country in the subsequent quarters of 2020Q2 and 2020Q3. During this period, the economy rebounded from the -6% decline to a +2.2% growth in 2020 Q2 and +4% in 2020 Q3.

A similar trend can be observed in the Chinese unemployment rate wherein China managed to achieve the lowest unemployment rate of 5% in 2020, when other major economies experienced significantly higher percentages. For example, the USA’s reported unemployment rate was at 8.05%, India at 10.2%, France at 8.01% and Germany at 5.9%. Figure 3 shows that while COVID-19 did lead to an increase in the unemployment rates in 2020, China managed to return to pre-COVID unemployment levels the very next year.

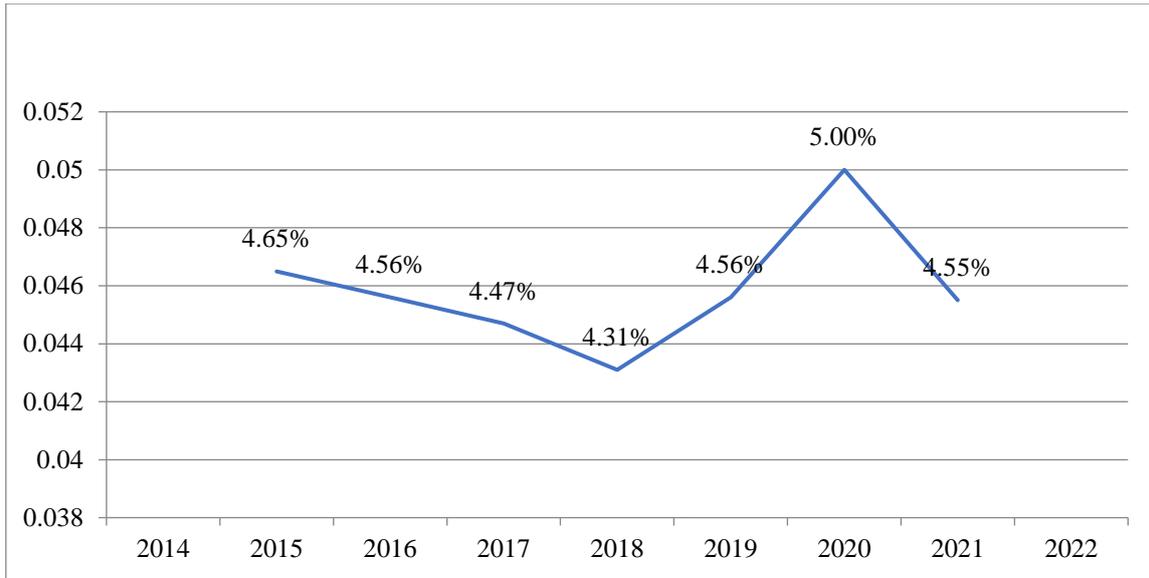


Fig. 3 China's Unemployment Rate (in %)



Fig. 4 Major Economies GDP Growth% in 2020

Therefore, from the above-analyzed data, it can be concluded that while COVID-19 did disrupt the Chinese economy, the country managed to recover relatively quickly. It is also important to highlight that while most of the other countries in the world faced difficulties in keeping their economies afloat amid the crisis, China stood out as the only country that saw an annual GDP growth of +2.24% economy in 2020. This economic resilience is evident on comparing it to other major economies, as depicted in Figure. 4, China was perhaps the only major economy that exhibited positive GDP growth, while countries like India (-5.83%) and the USA (-2.77%) experienced negative growth rates during the same period.

One of the ways via which China was able to achieve this type of economic growth, even during uncertain times was perhaps due to the several policies launched by the Chinese government during this period. Several Public

Health, Monetary, Fiscal, Financial, Employment and Structural Reform Policies were launched, out of which the Monetary, Financial, Fiscal and Employment policies played a direct role in boosting the country's economy. In a centrally planned economy like China's, the government has the authority to formulate and implement policies across different sectors of the economy, and the central authorities have the power to make decisions and allocate resources based on the country's economic needs. The ability of the government to easily mobilize resources and direct funds where they are needed the most paved way for the introduction of several fiscal policies like tax and fee reductions, consumer subsidies, and increased epidemic spending. The monetary policies focused on maintaining a suitable monetary scale, reducing financing costs (done by injecting over RMB 9 trillion in liquidity), provision of credit loans and debit repayment deferrals also highlight the government's direct involvement in managing the money

supply since the central banks and other financial institutions typically operate under the guidance of the government in a CEP (Centrally Planned Economy).

Additionally, the government also prioritized job creation and addressed the significant increase in its unemployment rate caused due to the pandemic by implementing initiatives such as point-to-point transportation for migrant workers, expanded employment channels for graduates and enhanced vocational training with industry subsidies.

As per Mark Horton and Asmaa El-Ganainy (IMF), “Governments influence the economy by changing the level and types of taxes, the extent and composition of spending, and the degree and form of borrowing. Governments directly and indirectly influence the way resources are used in the economy.”

Therefore, the success of these policies that aided China’s economic resilience can be attributed to the centralized nature of the country’s economic planning and the government’s ability to implement such policies in a straightforward and well-coordinated manner.

#### 4. Economic Crisis & Recovery: India

India follows a mixed economic framework wherein all the sectors are open to private firms except atomic energy and railways. Before 1991, the country operated as a centrally planned economy. It was in 1991 that a pivotal change occurred, and the country adopted its New Economic Policy, which sparked substantial foreign investments and economic growth. A mixed economy combines the features of a capitalist and socialist society. It protects private property and encourages private firms to grow but also interferes in economic activities whenever required to achieve desirable social aims. Mixed economic systems allow the private sector to pursue profits but also enforce business regulations and, at times, may nationalize industries serving in the public interest and India is a prominent example of the same. Figure 5 shows that the Indian economy was experiencing a steady growth that was neither too rapid nor too sluggish before the pandemic struck - the figure below shows India’s performance from 2015 to 2019. While steady growth was observed between 2015 and 2019, It must be acknowledged that the country was in its worst phase in 2019 before the pandemic struck and experienced the slowest economic growth in its last eight years.

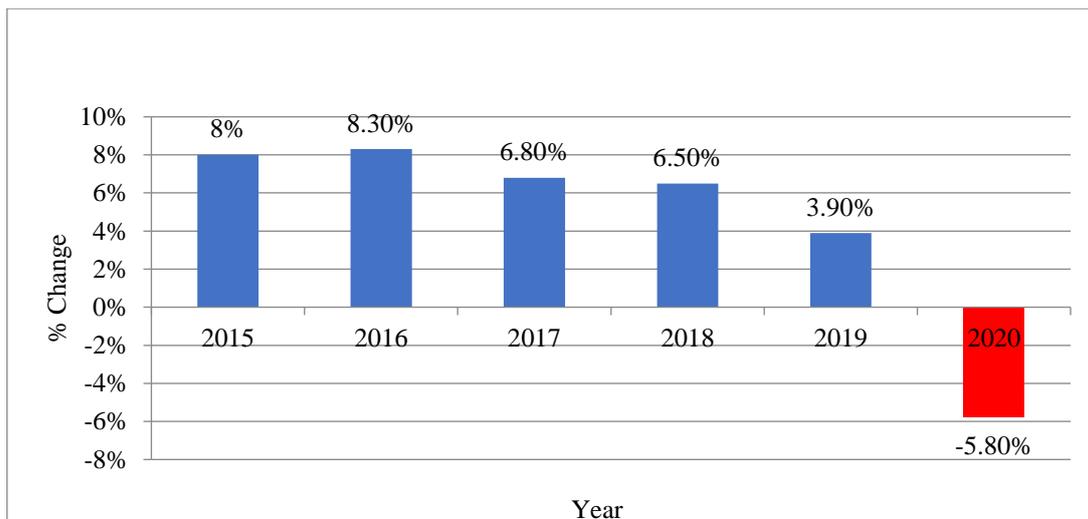


Fig. 5 Indian GDP change (in %)

The economy was already slumping in comparison to itself when the pandemic struck. Therefore, when the Indian Government decided to impose a nationwide lockdown on the evening of 24<sup>th</sup> March 2020, it led to a massive contraction in the economy. Figure 6 shows the 24.4% drop in India’s GDP in Q1 2020, which made it the country’s worst year in terms of economic contraction in the country’s history.

Additionally, India’s Gross Value Added (GVA) at basic price at constant terms also saw severe contractions, shrinking by 22.8 per cent (Q1,2020) and by 7.1 in Q2,2020. While there was some positive change in the 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2020, the economy slowed down once again in the first and second quarters of 2021, which was when the second wave of the pandemic struck the country. Thus, it is

with no doubt that the onset of the pandemic affected the country severely.

The pandemic also had a negative effect on the unemployment rates in the country. Table 1 given below depicts the unemployment rate of India, in comparison with unemployment rates of the ‘Reference Group’ that includes comparable countries and the world in 2019 and 2020 respectively. India had the lowest Unemployment Rate in 2019 at 5.3% of the total unemployed labour (compared to 5.5% unemployed labour in the reference groups and the world at 5.4%). However, in the very next year, India performed relatively poorly in comparison to both the world and the reference group economies, experiencing a staggering unemployment rate of 7.1%, while two data sets averaged 6.45%.

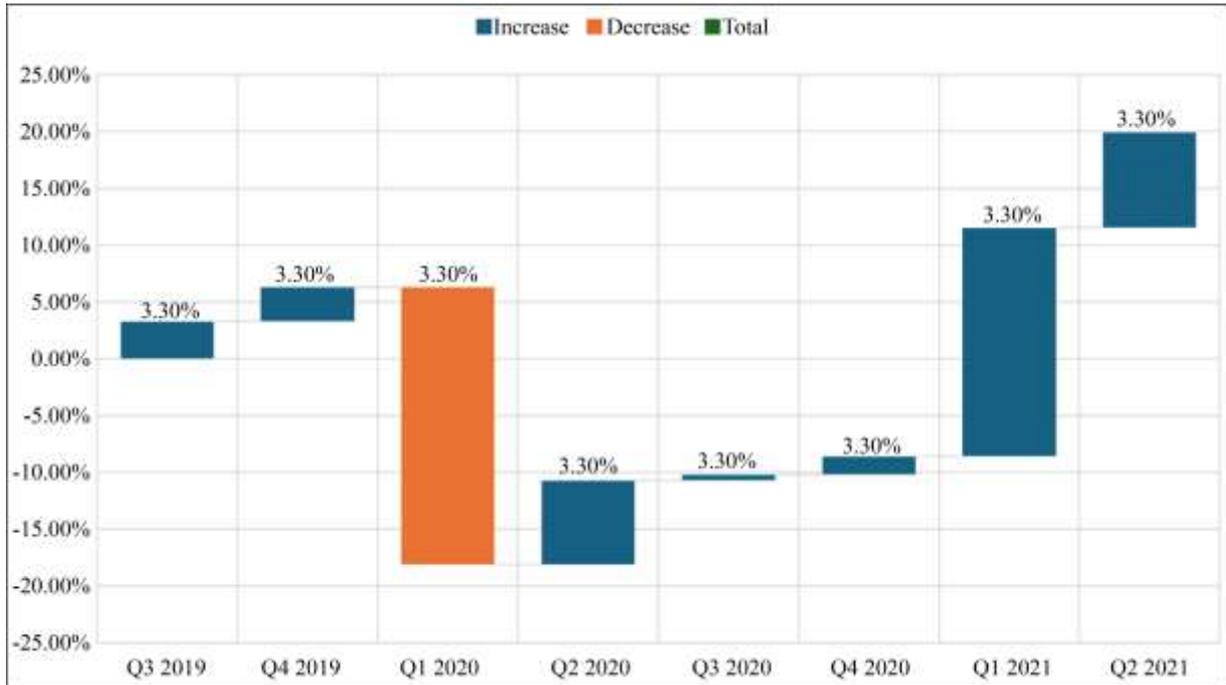


Fig. 6 Indian economy quarterly gross value added (in %)

Table 1. Summary of key macroeconomic indicator

	India	Reference Group	World
Unemployment rate 2019 (% of total labour )	5.3%	5.5%	5.4%
Unemployment rate 2020 (% of total labour )	7.1%	6.4%	6.5%

Source: Economic Outlook Database April 2021, IMF

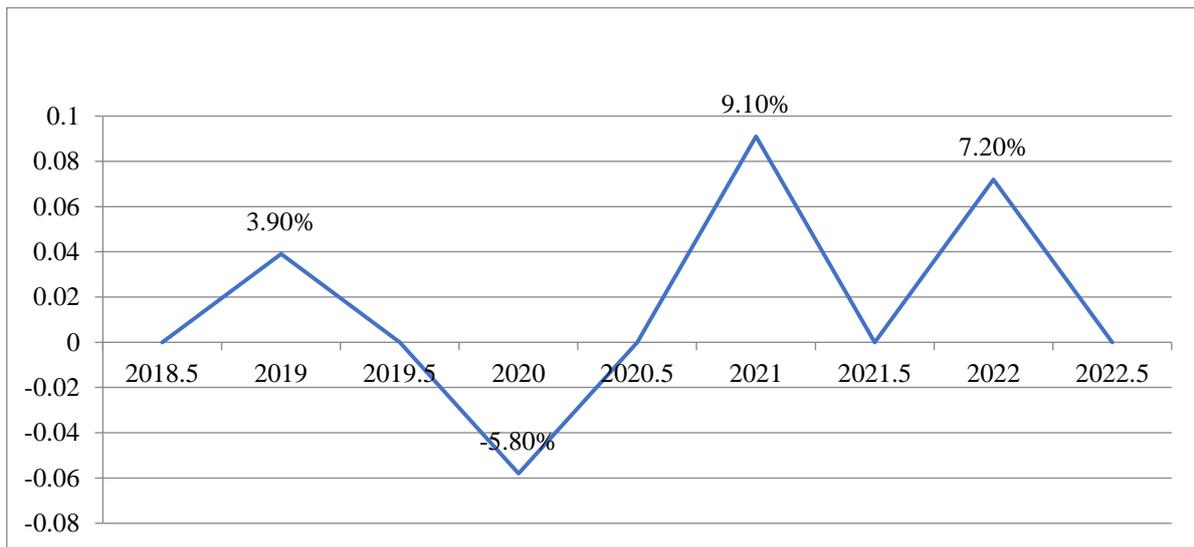


Fig. 7 India's yearly GDP growth

Although, with the outbreak of the second wave of the pandemic in March 2021, the government redirected financial support to boost India's vaccination campaign and administered over a billion vaccines as of February 2022, the stagnation of employment continued to remain a matter of concern with protests erupting across different states in 2022.

To deal effectively with the pandemic, the Indian government launched a National COVID Vaccination

Program from 16th January to 30th April 2021, due to which 100% of vaccine doses procured by the Government of India were provided free of cost to State Governments. State Governments were, in turn, to administer vaccination free of cost to defined priority groups. Due to its mixed-economic framework, India was able to develop its indigenous vaccine "Covaxin" in collaboration with Bharat Biotech Pvt. Ltd. and the Indian Council of Medical Research (ICMR)-National Institute of Virology (NIV). The

Indian COVID-19 vaccination drive was a success, with the country being able to administer over 220 Crore (2.2billion) vaccinations.

Eventually, the country did pick up strength during the pandemic and was even able to surpass the United Kingdom's economy to become the 5<sup>th</sup> largest economy in the world in 2021. Figure 7 represents the yearly GDP growth of the country post the pandemic. Following the 2020 contraction, India experienced growth in FY21/22, expanding by 9.1%, and emerged as one of the fastest-growing economies globally in 2022. This rebound can be attributed to a combination of factors, including government stimulus measures, a revival in consumer demand, and increased industrial production. Such a performance of the Indian economy showcases its resilience and ability to adapt to challenging circumstances. Though the pandemic did cause a setback to the country's economy, the country's recovery from this economic shock has been commendable. A major reason behind this efficient rebound must be given to the country's government that intervened when required and focussed on methods of self-reliance to boost the economy and economic growth.

### 5. Economic Crisis and Recovery: USA

The United States of America follows a Market Economic Framework. A market economy is an economic system where two forces, known as supply and demand, direct the production of goods and services. These economies are not controlled by a central authority (like a government) and are instead based on voluntary exchange. While in reality, no country can be purely capitalist or have an entirely free market, they can still fall within the higher side of the free-market end. The United States is around 72.1% economically free as of 2022 and holds the 25<sup>th</sup> rank

on the Heritage Foundation's 2022 *Index of Economic Freedom*.

Before the pandemic, the USA's economy was improving at a decent rate that had far exceeded the growth rates of several previous years. During the third quarter of 2019, the American economy marked its 11<sup>th</sup> consecutive year of growth and set a new record for the longest expansion in US history. Figure 8 shows the GDP Growth Rate and the Unemployment Rates in America from 2008-2019. The growth in the GDP and the constant decrease in the unemployment rates can be observed till 2019, indicating that the economy was in good condition. It must also be noted that the unemployment rate in 2019 was at a 50-year low.

The onset of 2020, however, impacted the US economy negatively, just like it impacted every other economy in the world. Unemployment rates grew drastically and the GDP growth rates entered in negatives. The country also went into an economic recession in February 2020. The government's inability to place timely restrictions on social gatherings further aggravated the situation in the country.

Figure 9 shows the volatility of the US markets amid the pandemic. While the pandemic resulted in a significant decrease in GDP growth rate by 31.4% in the second quarter of 2022, which was a decrease in GDP growth that had not been seen since the Great Depression, there was also a subsequent 35.3% increase in Q3 2020. This is because the U.S. economy is primarily driven by consumer spending. Increased social distancing and concerns about the virus caused a significant decrease in consumer spending. Factors like the shutting down of businesses, worker layoffs and decreased spending capacity of the consumer further lowered the aggregate demand and supply in the economy.

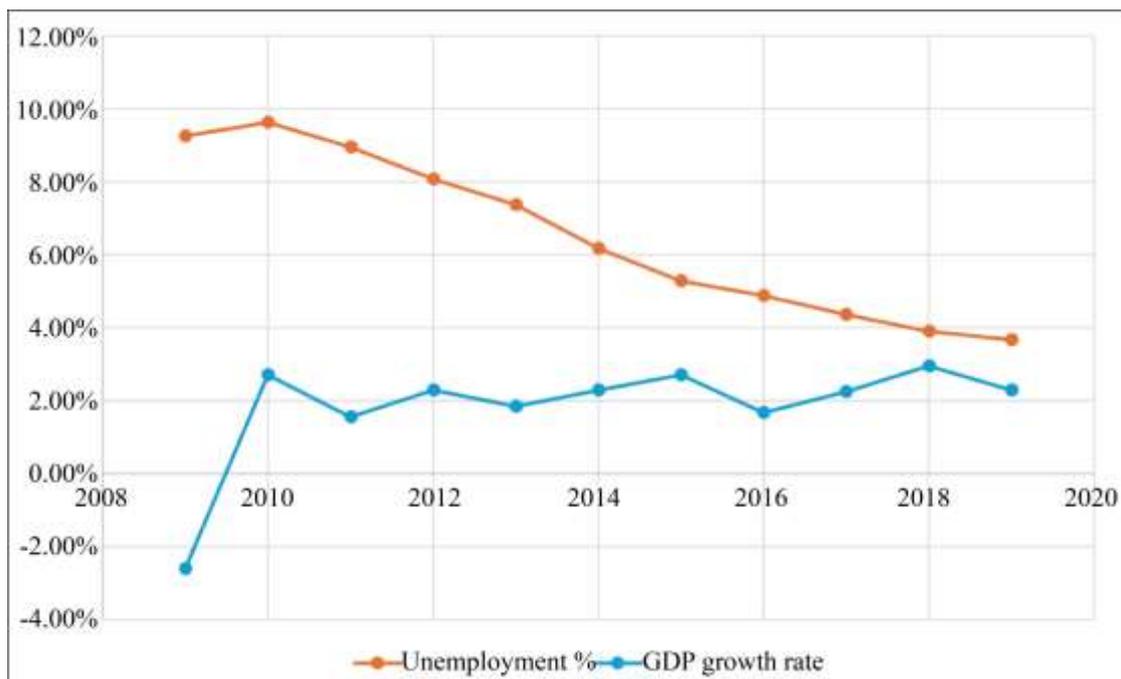


Fig. 8 USA GDP and unemployment rates in % (2009-2019)

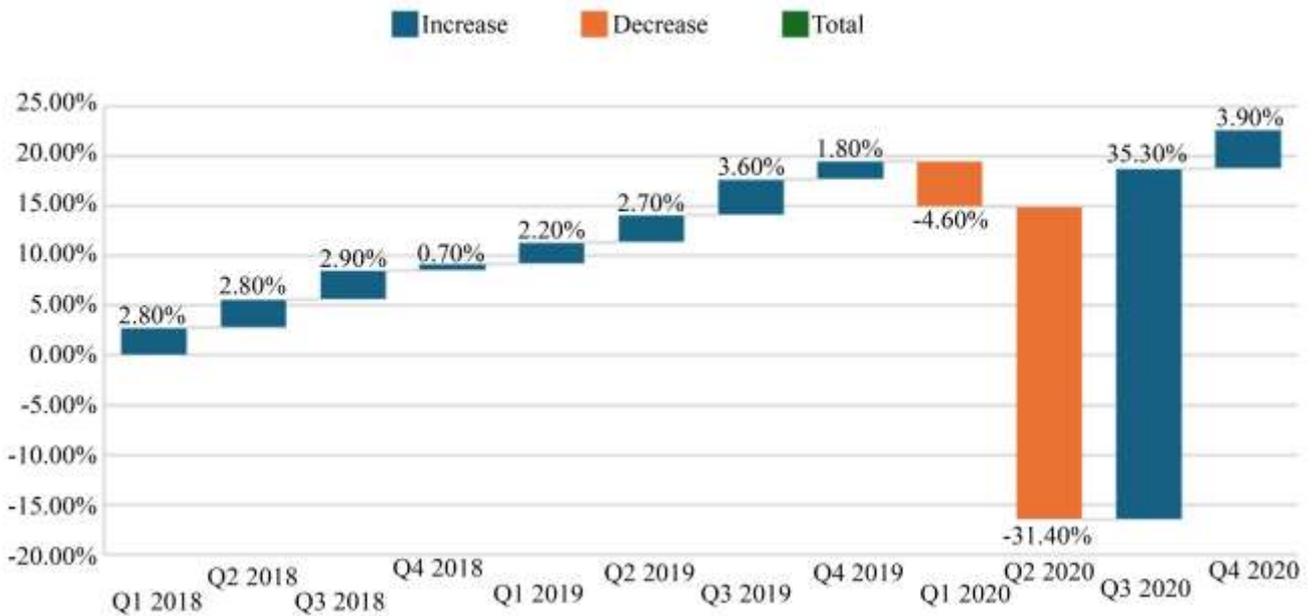


Fig. 9 USA's Quarter-wise Real GDP Growth %

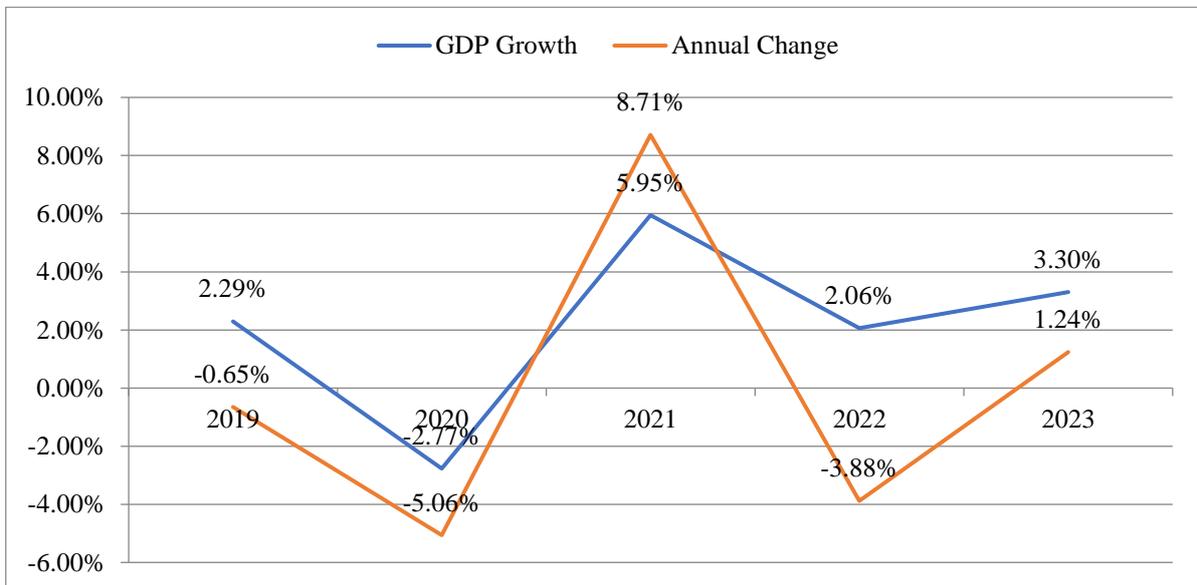


Fig. 10 US Economy GDP Change and GDP Growth

The unemployment rates in the country also followed a similar trajectory. Following the 50-year low unemployment rate in 2019, the USA saw a 4.38% spike in its unemployment rates, reaching a high of 8.05% unemployed people in 2020. As per USC Schaeffer's estimation, COVID-19's impact on the country's GDP was double that of the great recession of 2007-2009, 20 times greater than the economic costs of the 9/11 terror attacks and around 40 times greater than any other disaster experienced by the US from the 21<sup>st</sup> century to date.

Figure 10 represents the volatility of the US GDP growth rate that did not stabilize until 2023.

Although the economy was not completely thrown off its trajectory due to the country's economic resilience, the

initial few months of the recovery were volatile nonetheless. Government Fiscal and Monetary policies, including the Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020 and the provision of monetary stimulus, did help the economy grow back, especially in the third quarter of 2020.

The economy also grew by 5.9% in 2021, compared to 2.3% in 2019. However, it was only near the end of 2021 that the economic output was able to return to near its trend [As per the Congressional Research Service]. Following the rapid growth in 2021, the US economy slowed down once again in 2022 and then eventually stabilized in 2023, experiencing a growth rate of 2.5%, taking a bit more time to do so as compared to the economies of India and China.

## 6. Concluding Remarks

The paper analyzed the response of the centrally planned, mixed and market economies of China, India and the United States of America, respectively to the economic shock of the COVID-19 pandemic. GDP growth and unemployment levels were used for economic analysis for the three countries. Additionally, the Chinese economy was also analyzed based on, Sector-Wise Quarterly GDP growth. It was finally compared to the economic performance of the rest of the world during the same period. The Indian economy was analyzed using the quarterly Gross Value Added to the economy. Analysis of the unemployment rate was made in comparison to reference groups that contained similar economies and the rest of the world. Economic analysis of the USA involved the use of quarter-wise GDP growth.

It was observed that the Chinese Centrally-Planned economy depicted the quickest recovery and economic resilience, not only in comparison with India and the USA but with the rest of the world. China was the only major economy in the world that depicted an economic growth of +2.2% in 2020. While the country did experience an economic contraction in the first quarter of 2020, the economy rebounded in the very next quarter. A great degree of this economic recovery was due to the timely interference and the policies launched by the Chinese government in response to the pandemic.

Next, we observed the severe impact of the pandemic on the mixed economy of India. The country did initially struggle with the onset of the pandemic and saw a spike in unemployment rates and the GDP growth rates fell as low as -24.4% in the first quarter of 2020. The country struggled for economic stabilization until 2021, and its economic recovery was not as swift as that of China.

However, the country's economic growth post-2021 is commendable, surpassing the United Kingdom's economy towards the end of 2021 and becoming the fastest-growing economy in 2022. Part of this economic resilience is yet again due to the efforts and interference of the Indian government. The country developed its indigenous vaccine, "Covaxin," and also carried out one of the largest COVID-19 vaccination drives in the world.

Last, but not the least, The United States' economic recovery was characterized by a lot of volatility. Though the country was able to recover from the pandemic and even reach its post-pandemic growth rates, the recovery came later than that of India and China. The US economy did not show a constant rate of growth/decrease. The economy was observed to be contracting by 31% in one quarter, increasing by 32% in the other and slowing down severely in the subsequent quarters. The main reason for such volatility was due to the fact that the US Economy is primarily driven by consumer spending and consumer demand. In a nutshell, a positive correlation is observed between the degree of government control over an economy and the speed of economic recovery of a country. As government control increases, the speed of economic recovery increases as well.

## 7. Future Research and Acknowledgements

As per the related future research, this paper limits itself only to the economic response of three countries. A research paper with an analysis of a larger dataset could contribute to the literature. Additionally, the paper only focuses on 'COVID-19' as the economic shock in question.

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