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ANALYSIS & VISUALIZATION OF GDP/GSDP OF INDIAN STATES & THE EFFECT OF COVID ON THEM

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ABSTRACT

Analysis is important for analyzing country progress in various sectors of the country. Analyzing and visualizing GDP allows policy makers and central banks to assess whether the economy is shrinking or expanding and take swift action. In addition, policy makers, economists, and businesses can analyze the impact of variables such as financial and fiscal policies, economic shocks, taxes and spending plans.

I. INTRODUCTION

The empirical data was taken from already available data sets from Kaggle and planning commission (NitiAayog) and a linear regression model was used to analyze the data and make analysis and conclusions according to that. Graphs were plotted from this data and political as well as economic side of the data was depicted in this project. GDP is important because it gives information about the size of the economy and how an economy is performing. The growth rate of real GDP is often used as an indicator of the general health of the economy. Everyone—investors, politicians, and citizens—is impacted by the strength of global and local economies, and GDP is a critical measurement of an economy`s size, performance, and general health. Therefore, investors will not only gain knowledge of the GDP and GDSP of Indian states and their investment areas and potential investment locations, but also their vision as an insight into the general public on how to improve the country. You can benefit from the transformation.

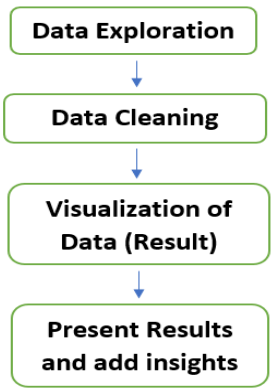
II. DATA & METHODOLOGY

Gross Domestic Product (GDP) measures the national income and output of a particular country's economy. Gross Domestic Product (GDP) represents the total expenditure of all final goods and services produced domestically within a particular time period. [4] The long-term growth perspective of the Indian economy remains positive due to its young population and corresponding low dependency ratio, healthy savings, and investment rates, increasing globalization in India and integration into the global economy. The economy slowed in 2017, due to shocks of "demonetization" in 2016 and the introduction of the Goods and Services Tax in 2017. Nearly 60% of India`s GDP is driven by domestic private consumption.

Algorithm

Import the required data sets. Import the necessary libraries. Read the prominent data sets for visual clarity. Clean the data sets if they have null values. Dropped the columns whose rows had null values. Dropped the Union territories which are not needed for analysis. And started plotting according to the data available using matplotlib etc.

Data flow diagram/flowchart



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III. MODELING AND ANALYSIS

Average % growth vs States

In the figure below (Figure 1.1), Gross4_Mean for each state is represented by a horizontal bar graph, and as shown by the blue line, the same graph also shows the total GDP of India along with the states. The horizontal bar graph shows the average growth rate on the x-axis and the state on the y-axis. Zero-valued states and Union Territory have been removed from the gross4_mean data frame.

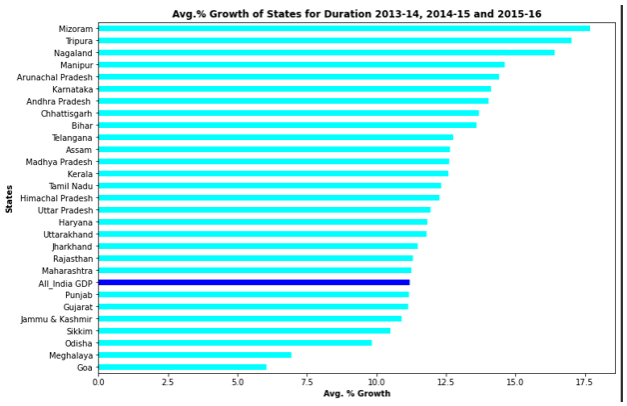

Fig 1.1

Home state vs National Average (Avg% Growth of Home state vs National Avg. for Duration 2013-14, 2014-15 and 2015-16)

In (Figure 1.2), gross4_mean Andhra Pradesh in my home state is compared to gross4_mean in GDP across India in a graph of mean growth vs. home state and national average. This graph shows that Andhra Pradesh has a compound annual growth rate higher than the national average. This shows that Andhra Pradesh's economic prosperity is very good, and that if the GDP rate is high, the state's education, economy and industry are growing well and well. is showing.

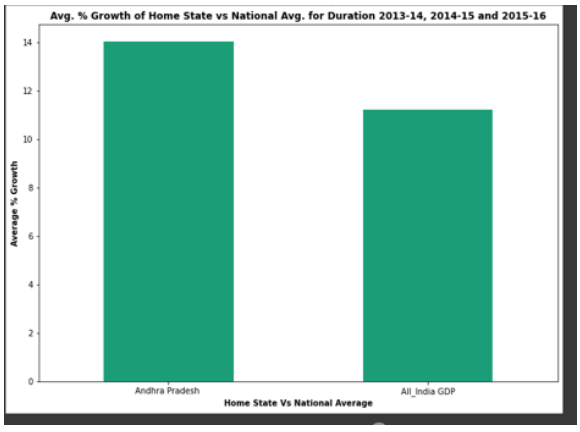

Fig 1.2

Years vs GDSP (Before partition of Andhra and Telangana)

Here (Figure 1.3) you can see a graph showing a bar graph comparing Andhra Pradesh's split / pre-split year and GDP. The main reason for the split was the different economic growth of the Andorra and Telangana regions. Andorra's IT centre was located in Hyderabad, Telangana, but there was still little progress. Therefore, Andorra already has Visakhapatnam as a port area, but the division of the two areas has been required for more representatives and better development in Telangana. There were some regional and national politics involved in power, but the general public, especially the middle class, was not interested in the division of states, believing that it would not benefit any state.

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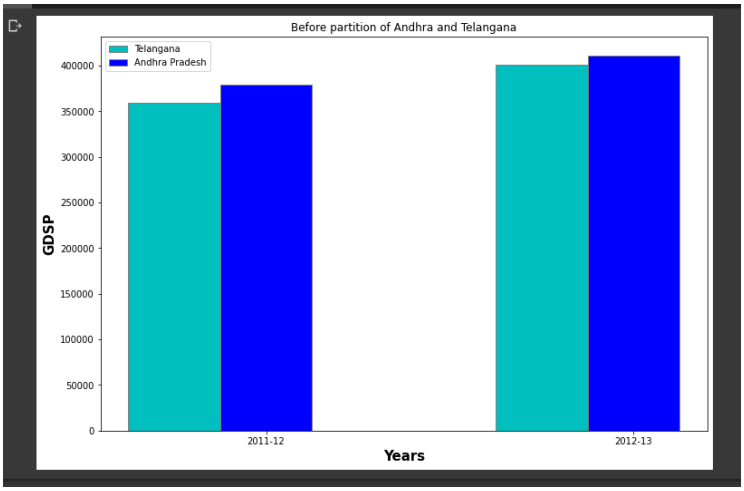

Fig 1.3

Years vs GDSP (After Partition of Andhra and Telangana)

This figure (Figure 1.4) shows the result of dividing Andorra into Andorra and Telangana. Even after Hyderabad became self-reliant after the partition, the partition did not have a significant impact on Telangana. Andorra, without the former capital Hyderabad, still outperformed Telangana in GDSP. This indicates that splitting was not necessary and could have been avoided. Andorra's agricultural output far exceeds that of Telangana, and even after the big cities, the results showed that Telangana did not exceed Andorra's GDP.

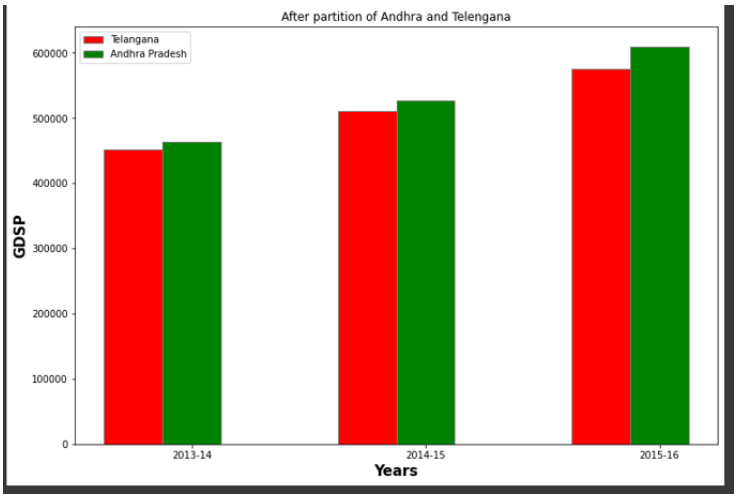

Fig 1.4

Pie chart Avg% growth of GDSP AP, Telangana All India GDP

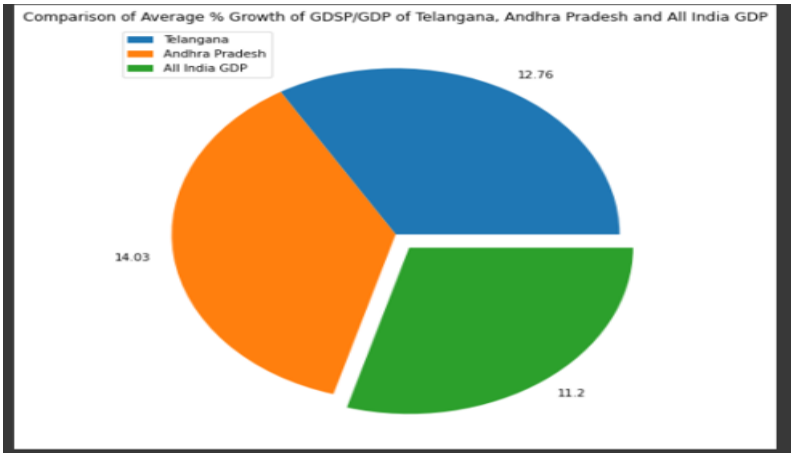

Fig 1.5

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IV. RESULTS AND DISCUSSION

GDSP vs years (comparison of the highest GDP contributors with the All India GDP of the selected years)

Shown here (Figure 1.6) are UP and Karnataka (the two states with the highest contributions to GDP). These are compared to the annual gross domestic product. This finding shows that the two states have been stagnant for years and have not even exceeded their original contributions. This indicates weak development in the agricultural and technical sectors of both countries.

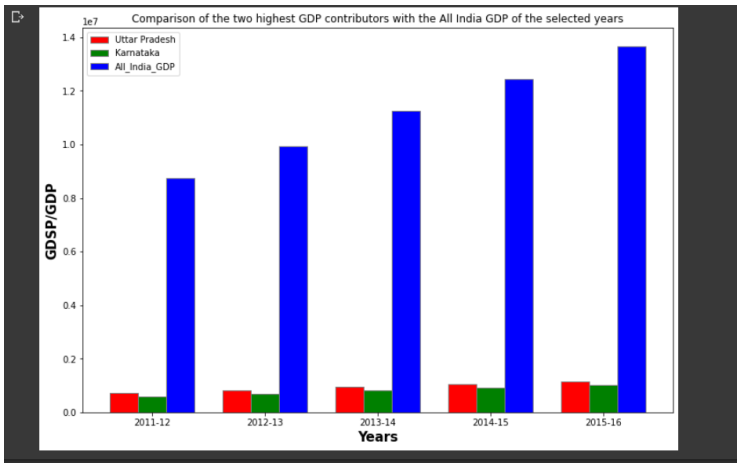

Fig 1.6

All India GDP vs Years (Before formation of BJP & After formation of BJP party at Centre in majority)

This graph (Figure 1.7) shows the total GDP of India for the year (2011-12, 2016-17). In the last few years, there have been periods that can be divided before and after the majority of the BJP (Government Bhartiya Janata Party). The plot clearly shows that India's GDP was higher in the years following the BJP's takeover than it was before the 2014 election victory. The parliamentary elections are over.

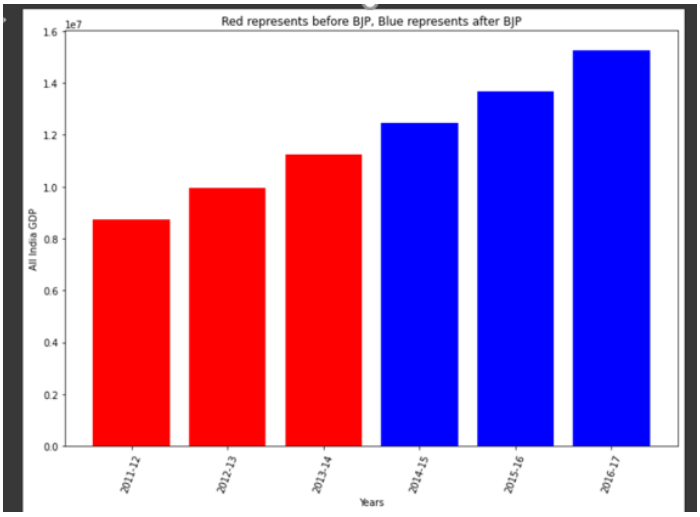

Fig 1.7

Total GDP vs states (Total GDP of top 5 states 2015-2016)

(Figure 1.8) shows the five countries with the highest GDP contributions from each region of India. This is a graph with a bar graph with "state" on the x-axis and "total GDP (chlore)" on the y-axis.

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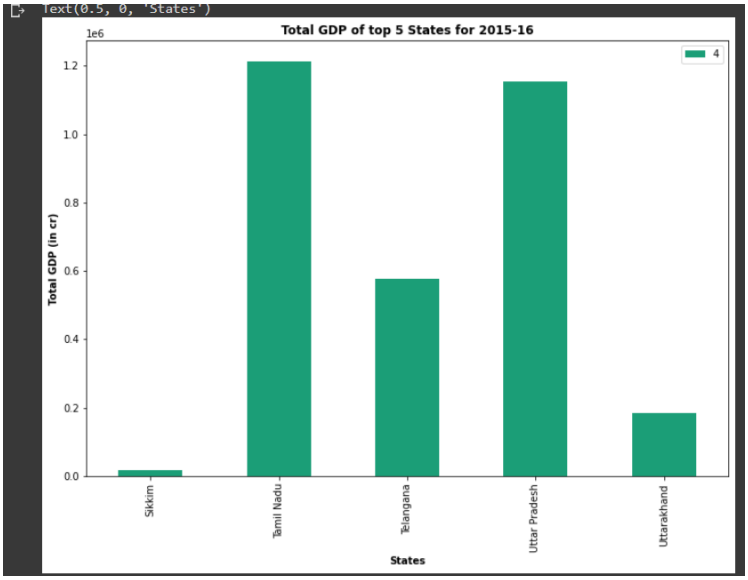

Fig 1.8

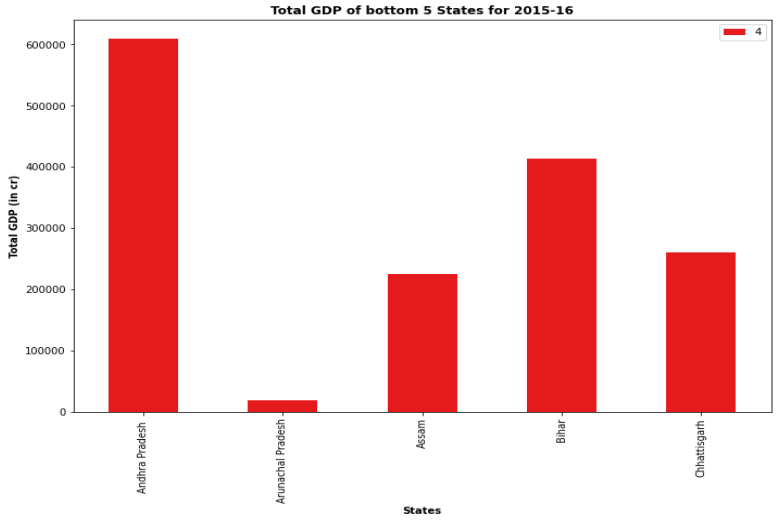

Fig 1.9

The top five states account for almost one-third. (32%) of total GSDP. There is a big difference in GSDP between the fifth state (Andhra Pradesh) and the remaining five states. In (Figure 1.9), the bottom five countries make up only 1.5% of total GSDP. J & K's GSDP is significantly higher than any other mainland US due to traditional recreational tourism with a full range of adventure, pilgrimage, spiritual and health tourism.

Effect of Covid on the GSDP of certain states:

(Before Lockdown)- Fig 1.10

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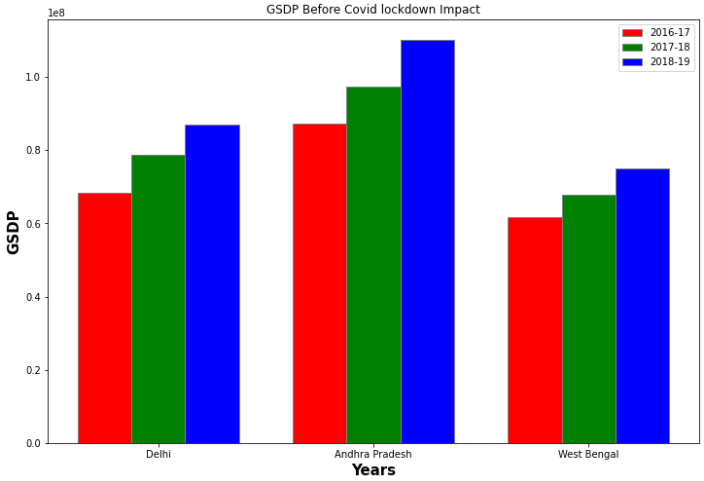

Fig 1.10

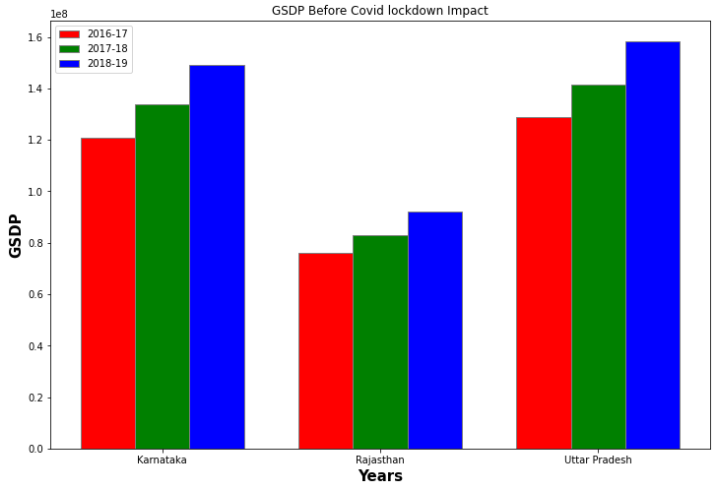

Fig 1.11

GSDP growth rate before Covid lockdown:

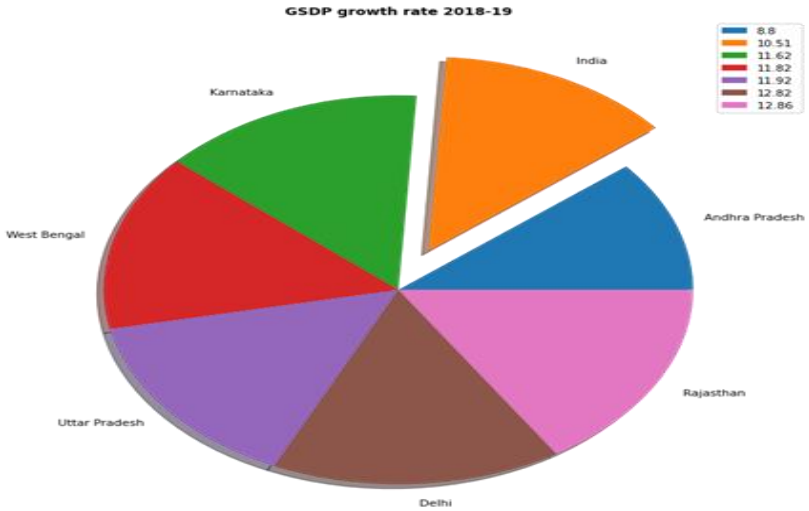

Fig 1.12

One small virus has devastated the world which is beyond imaginable for mankind. The important learning, we have learnt so far is the criticality of overall cost control in business and living our livelihood to the minimum. India`s real GDP (Fig1.12) was on a continuous downward trend and spread of the pandemic is going to affect it even worse. Government has taken steps to control its spread, such as nationwide restriction for 45 days and a

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complete lockdown of states. This have brought a situation where there is no economic activity and could impact both consumption and investment. [11]

(During & after the COVID lockdown):

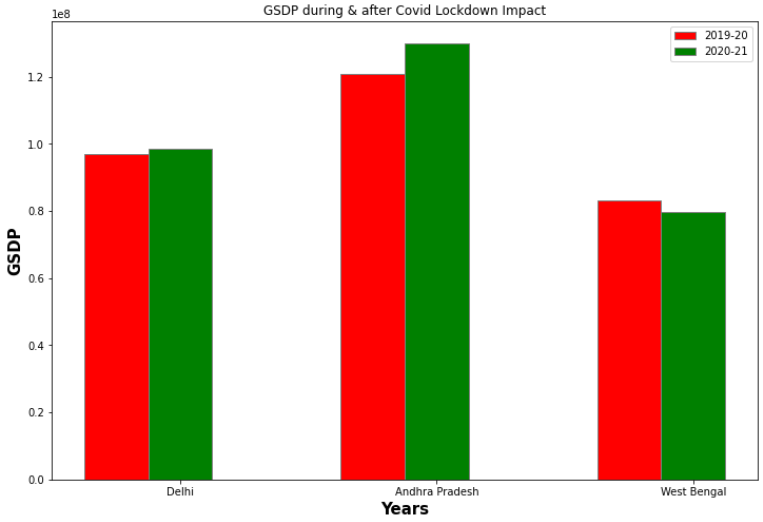

Fig 1.13

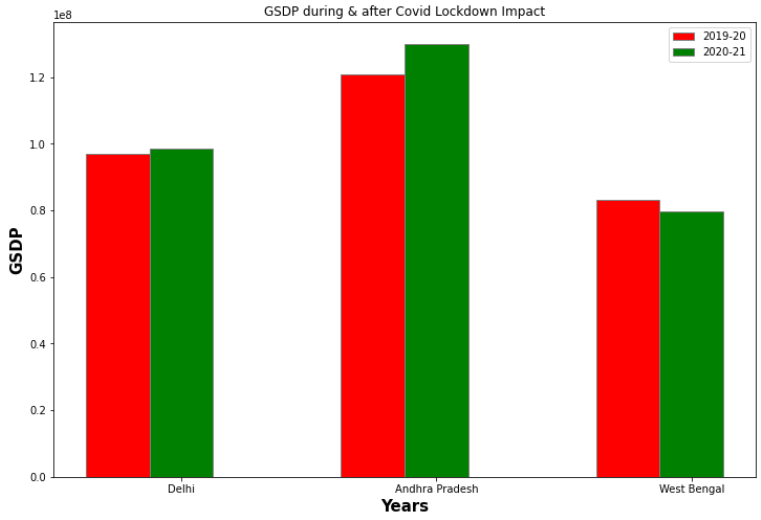

Fig 1.14

GSDP growth rate after & during covid lockdown:

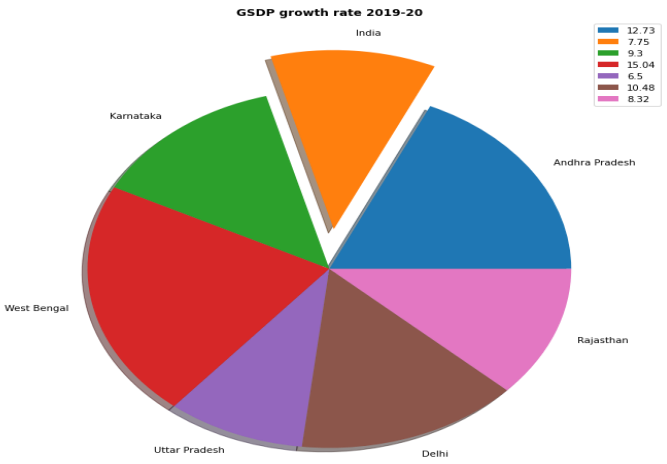

Fig 1.15

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It models shocks as labor and capital slack, increased costs of international trade, reduced travel services, and a shift in demand from activities that require proximity between people (Figures 1.13, 1.14)., 1.15). The baseline global epidemic scenario is that gross domestic product is 2% below the global benchmark, 2.5% in developing countries and 1.8% in developed countries. [9]

Effect on unemployment rate before Covid lockdown:

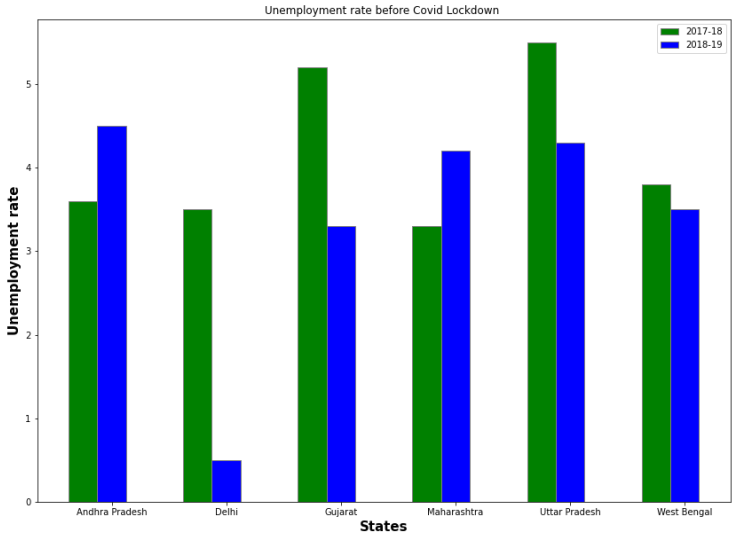

Fig 1.16

The biggest negative shocks are seen in the production of domestic services and trade tourism services affected by the pandemic (Figure 1.16). The final economic impact may be different, as this model does not fully capture the independent decline in demand and investor confidence caused by social isolation. This exercise is for illustration purposes as it is too early to informedly assess the full impact of a pandemic. But it conveys the potential for future global economic distress, especially for developing countries and their potential need for assistance. [9]

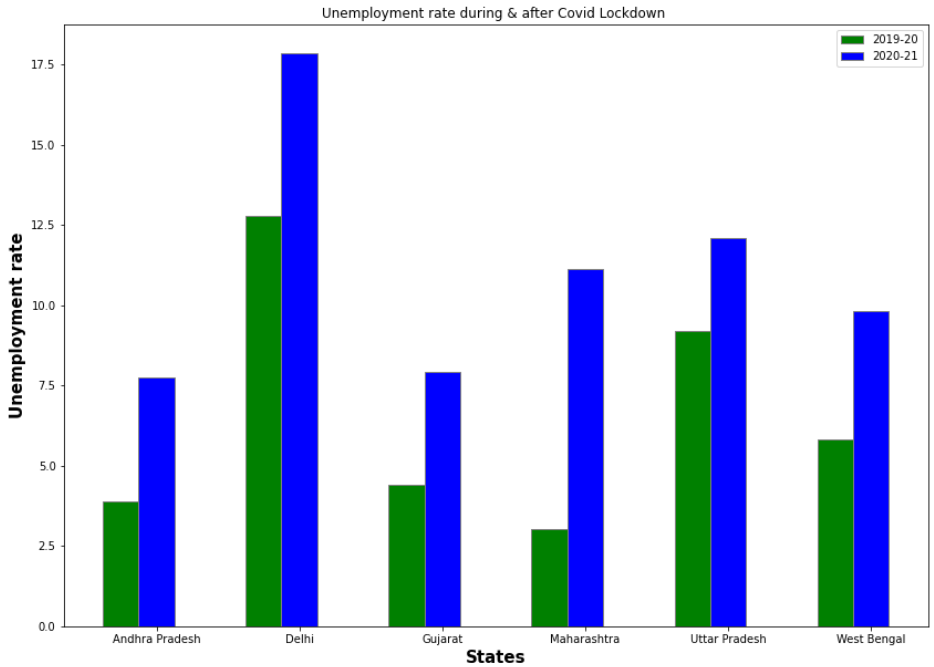

Fig 1.17

First, there is large heterogeneity across occupations in the level of exposure to the pandemic. This heterogeneity mirrors the effects of the health crisis as well as the type of policy interventions that the Swedish government has adopted. (Fig 1.17) Second, in a context characterized by high levels of pre-pandemic gender

equality in the labor market, and by the policy choice not to close schools, we fail to find evidence of women paying a higher labor market cost than men; if anything, the unemployment impact of the pandemic in Sweden appears to have been particularly large for some categories of male workers. Third, the wage gradient of unemployment risk, with lower paying occupations typically suffering higher unemployment rates, has become steeper as a result of the economic crisis. Fourth, two demographics appear to be strong predictors of the unemployment impact of the pandemic in Sweden: age and foreign-born status; the increase in unemployment risk caused by the pandemic has been especially pronounced for young workers and workers born in non-EU countries, who were already more vulnerable before the pandemic. With increasing literature on the impact of pandemics on different types and measures of inequality, there are also studies specifically related to ours to focus on the labor market and look at real-time data. Based on these studies, several patterns emerge. First, the impact of pandemics on increasing the likelihood of unemployment appears to be greater for less skilled workers, as measured by educational background. [10]

V. CONCLUSION

Gross domestic product, the total market value of all final goods and services produced in the country in a particular year. It is equal to total consumption, capital investment, and government spending, minus the value of imports from the value of exports. GDP is important because it provides information about the size and performance of the economy. Real GDP growth is often used as an indicator of the health of the economy as a whole. Generally, an increase in real GDP is interpreted as a sign that the economy is doing well. Studies show that GDP currently defined is not a comprehensive measure of welfare and economic well-being, but the concept of GDP, along with some of the GDP available through national accounts, is useful and much in itself. Should provide information about. It is closely related to welfare. There is one important exception to our finding that changes in real GDP are appropriate to capture changes in economic well-being. Elimination of non-market activities that affect economic well-being is more noteworthy, especially given that the importance of such activities may change over time as changes in GDP change the degree of change in prosperity. Insist. [3] [4] On the other hand, societies that cannot provide useful employment to those who seek it are vulnerable. Rising unemployment reduces overall purchasing power, slows the economy, and most importantly makes households more vulnerable to economic shocks. Therefore, it is not surprising that the unemployment rate is one of the most important key indicators of the economy. In a rapidly changing world, it is imperative that such indicators be readily available so that corrective actions can be taken in a timely manner.

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