# Data Assignment

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#### **Abstract**

Questions addressed:

- 1. Based on the data provided on The Reserve Bank of India website, write about India's GDP structure and growth.
- 2. Write about foreign investment into India.

#### 1. India's GDP

Before we include in data analysis, we first look at some definitions to have a better understanding of the same.

- *Gross Domestic Product (GDP)* is the monetary value of all finished goods and services made within a country during a specific period.
- Current Prices measure GDP/inflation/asset prices using the actual prices we notice in the economy. Current prices make no adjustment for inflation. Constant prices adjust for the effects of inflation. Using constant prices enables us to measure the actual change in output (and not just an increase due to the effects of inflation).

#### 1.1. Structure

1. GDP = C + I + G - NX

One way to break up the GDP is into C (Private Final Consumption Expenditure), I (Gross Fixed Capital Formation, Changes in Stocks, Valuables), G (Government Final Consumption Expenditure), and NX (Export-Import). The trend of this break up has not been uniform for India, and has morphed with changing political and global economy.

While the question of growth is taken up in the next section, a summary of percentage contribution based on constant prices over years, presented in Table 1 (remainder percentage is discrepancies in each case), indicates that these have not changed much in the past seven years.

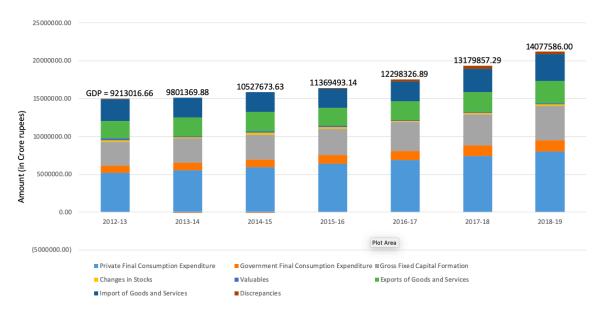


Figure 1: Indian GDP structure over years, base year 2011-12, constant prices

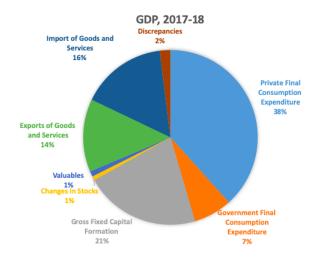


Figure 2: Indian GDP structure, 2017-18 NSSO data

2. We can look at the sectors which comprise of contributions to GDP. Based on data for 2011-12, major sectors of the Indian economy are Services, Agriculture, Agriculture and Allied, Manufacturing, Mining and Quarrying, and Industry.

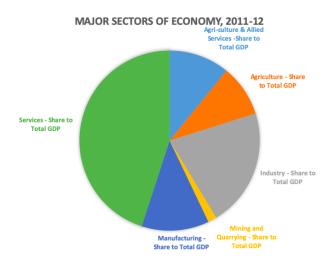


Figure 3: Indian GDP structure, 2011-12 (2017-18 wasn't available) OGD platform

- India ranks 2nd worldwide in farm output. Agriculture and allied sectors like forestry, logging and fishing accounted for 18.6% of the GDP in 2005, employed 60% of the total workforce and despite a steady decline of its share in the GDP, it is still the largest economic sector and plays a significant role in the overall socio-economic development of India.
- India is 10th in the world in factory output. Manufacturing sector in addition to mining, quarrying, electricity and gas together account for 27.6% of the GDP and employ 17% of the total workforce.
- India is 15th in services output. Service industry employ English-speaking Indian workers on the supply side and on the demand side, has increased demand from foreign consumers interested in India's service exports or those looking to outsource their operations. India's IT industry, despite contributing significantly to its balance of payments, accounts for only about 1% of the total GDP or 1/50th of the total services.

### 1.2. Growth

We can look at the growth rate of different macroeconomic aggregates at constant prices in Figure 4. Since the variables are correlated by definition, some graphs are just an offset of each other, like Net NNI and Per Capita NNI.

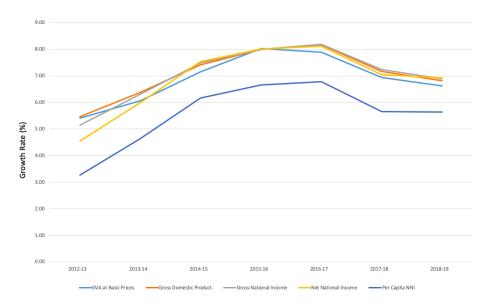


Figure 4: Growth rate of macroeconomic aggregates at constant prices

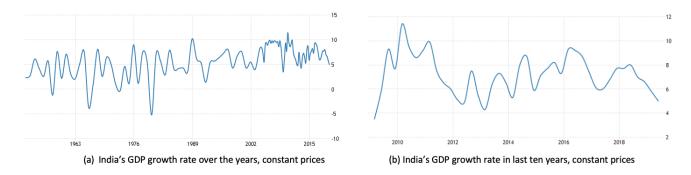


Figure 5: Indian GDP growth rate

- The Index of Industrial Production (IIP) is an index which shows the growth rates in different industry groups of the economy in a stipulated period of time. IIP is a composite indicator for industry groups classified under two categories: (a) Broad sectors, namely, Mining, Manufacturing and Electricity, and (b) Use-based sectors, namely Basic Goods, Capital Goods and Intermediate Goods.
- Index Numbers in Agriculture study growth trends over time and comparative picture of performance of agricultural sector vis-à-vis other sectors. These index numbers can be grouped into two categories: (a) Index Numbers of Area, Production and Yield, and (b) Index Numbers of Terms of Trade between agricultural and nonagricultural Sectors.

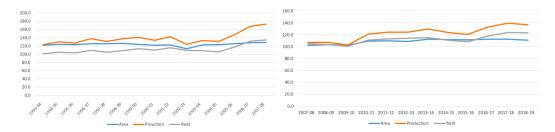


Figure 6: Index numbers in agriculture, all crops, base year 1993-94 in 1st, 2007-08 in 2nd



Figure 7: Indian GDP growth rate

## 2. Foreign Investment into India

The RBI website provides data for years post 2000.

Direct Investment to India = Gross Investment - Disinvestment

Net Foreign Direct Investment = Direct Investment to India - FDI by India

Foreign Investent Inflows = Net Foreign Direct

Investment + Net Portfolio Investment

... The overall trend is increasing, except for the hit in 2008 largely because of the November crisis. Following 2015, there was a steep decline in foreign funds in telecom, pharmaceuticals and power.

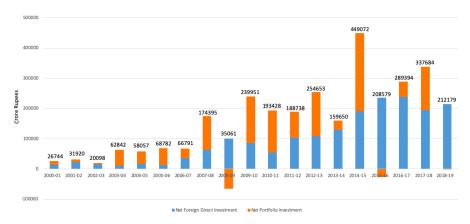


Figure 8: Direct Investment to India

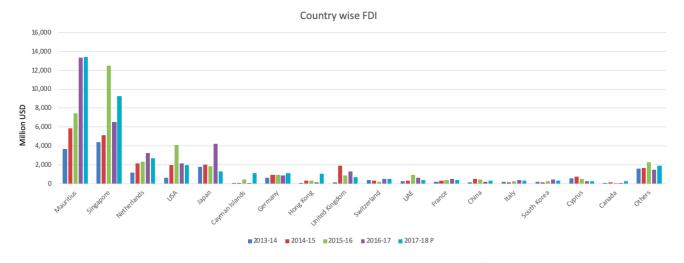


Figure 9: Country wise Foreign Direct Investment Inflows

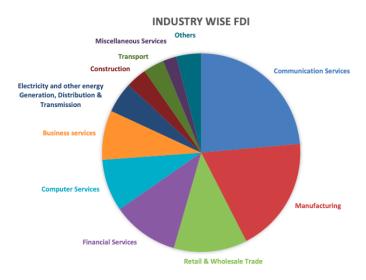


Figure 10: Industry wise contribution to inflows

FDI (Foreign Direct Investment) is when a foreign company invests in India directly by setting up a wholly owned subsidiary or getting into a joint venture, and conducting their business in India.

FII (Foreign Institutional Investment) is when foreign investors invest in the shares of a company that is listed in India, or in bonds offered by an Indian company.

In FII, the companies only need to get registered in the stock exchange to make investments. Investment climate in India has improved considerably since the opening up of the economy in 1991. India today is continuously improving on the rankings of Ease of Doing Business (EoDB).

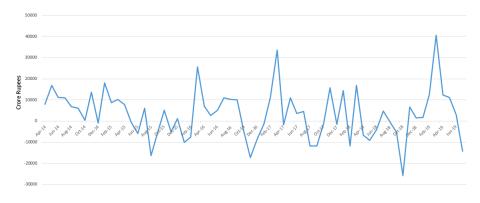


Figure 11: Foreign Institutional Investment

In general, FDI is more stable as opposed to FII. FDI targets a specific enterprise. FII increasing capital availability in general.

Factors affecting FDI are wage rates, labour skills, tax rates, transport and infrastructure, size of economy/potential for growth, political stability/property rights, commodities, exchange rate, clustering effects and access to free trade areas among others. Flow of foreign institutional investors, inflation, exchange rate are major factors responsible/affecting a movement in Indian stock market by FIIs.

#### References

- [1] https://www.rbi.org.in/Scripts/AnnualPublications.aspx?head=Handbook%20of %20Statistics%20on%20Indian%20Economy
- [2] https://www.economicshelp.org/