# **GDP**

# **Gross Domestic Product**

### **Essential Economic Indicators:**

#### **Economic Growth**

GDP: In layman's terms, it is the total market value of all 'final' goods and services produced in a country.

$$GDP = C + I + G + (X - M)$$

C = Personal Consumtion

I = Private Investment

G = Government Consumption

X = Exports

M = Imports

(X-M) = Net Exports

Nominal GDP Growth = Includes inflation, ie, includes consumption of goods as well as their increaseing price.

Real GDP Growth = Excludes Inflation, and shows the real growth of GDP

However, these two are often highly correlated.

#### **Inflation**

It is the general increase in prices of goods and services which diminishes the purchasing power of money.

**How to measure Inflation?** 

The most well known indicator of Inflation is CPI - Consumer Price Index

CPI is an index which gives an idea of overall inflation by giving well calculated weights to different goods on services according to how much an average household spends on these goods and services. For example, inflation on product A and B are 5% and 10% respectively. If the weights in CPI are 0.6 and 0.4 respectively. CPI for product A and B would by 0.6\*5 + 0.4\*10 = 7%

Other quantitites such as trimmed mean inflation is calculated which excludes the goods/services with the largest price changes (Top and Bottom 15%).

Some Limitations of CPI:

- Not an indicator of price level: Only indicates the change
- Quality Changes: Does not take into account the change in price due to change in quality of a product or service.
- Substitution Bias: Households may switch to cheaper products, and buy then more than expensive ones, hence inducing an error in the CPI weights

### **Unemployment**

This metric is very important while gauging a countries economic situation. Unemployed people are more likely to consume lesser, and brings down the country's GDP. This is of high political value as well, unemployed people are more likely to vote the current government out of power.

There is a very high correlation between the relative number of employed people in the country and the real GDP growth of that nation.

The more the counsumer spending sector (C) accounts for the net GDP, more is the effect of unemployment on GDP.

Usually forecasted by the Non-farm payroll numbers.

#### **Business Confidence**

Large companies and business leaders tend to make decisions which have a larger effect on a country's economy than one single consumer. For example, business people

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tend to make higher investments when they are confident that there will be a higher demand of their goods/services in the near future.

This is described by <u>PMI (Purchasing Manager's Index</u>). If PMI > 50, this displayes optimism, PMI<50 displayes pessimism. The purpose of the PMI is to provide information about current and future business conditions to company decision makers, analysts, and investors. It is a very good leading indicator of GDP growth.

## Housing

Even though it looks like housing contributes very less to the GDP of a nation, but it induces spending into a lot of other sectors, such as house services, new furniture, electronics, etc. This also reflects the living standards of the people in a country. Hence, housing is a very important indicator of a country's economy.

Because GDP statistics are released well after the release of other economic indicators. They can be used as a good leading prior to forecast the GDP growth.

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