## Chapter I – Concept of National Income

The latest Economic Survey says that Indian economy is estimated to grow by 6.9 per cent in 2011-12, after having grown at the rate of 8.4 per cent in each of the two preceding years. Economic Survey 2010-11 had anticipated that the Indian economy would register growth of around 9 per cent in 2011-12. India's economy had grown to these levels only before the Financial Crisis of 2008-09. But the picture shown by the last Economic Survey was based upon the fact that the economy had achieved a growth rate of 8.4 per cent during the years 2009-10 and 2010-11 and the savings and investment rates had begun rising once again. However, during the course of the year it became increasingly clear that economy would fall short of that growth rate by a significant margin for **various reasons**.

***Our first question is***

### What are the reasons of slow growth of Indian economy?

The reasons were national as well as international. These include:

- Conditions prevailing in Europe
- Sluggish growth in many other industrialized countries such as USA
- Stagnation in Japan
- Hardening international prices of crude oil, which always has a large effect on India.
- Domestic factors such as **tightening of monetary policy**, in particular raising the repo rate in order to control inflation and anchor inflationary expectations, resulted in some slowing down of investment and growth, particularly in the industrial sector.

**How Tight monetary policy slows Economic Growth?**

You must have read in some newspapers or text books that during inflation, **Too much Money chases too few goods**. This is because, due to Inflation, money loses value, as it will not buy the same amount of a good or a service in the future as it does now or did in the past.

For example, we suppose that if there was a 6% inflation rate for the last 20 years, a Rs. 100 purchase in 1992 would cost Rs. 321 in 2012.

To counter the inflation, the amount of money in the system needs to be checked. For this, **RBI takes monetary policy measures** which are generally centred on reducing the money supply. Money supply can be reduced *by increasing the interest rates or conducting open market operations*. We should remind ourselves that *Reserve Bank has increased the interest rates for 13 times since March 2010* to tame rising inflation. When money in the system is reduced, there is lesser money for people to spend and invest. This compresses the demand. When people buy fewer things, the producers of those things suffer. This means that it affects the industries. Slowdown of industries would result in slow growth.

***Next Question is:***

### What is Economic Growth?

We all understand that an economy is made up of production and consumption of goods and services. Production is achieved via factors of production viz. Land, Labour and Capital. Consumption is achieved via trade, distribution and final consumption of goods & services. The goods as we know can be finished goods (final goods) or unfinished goods.

The final result of production of goods and services is "Product. A product may be a tangible good or intangible service. Every goods and service has a monetary value. When you combine all "product" of an entity, we may call it Gross Product. When we combine the monetary value of all the final goods and services produced in the **domestic territory** of a country for a specified time such as a year, this will be called "**Gross Domestic Product**". It's so easy ☺

***The next question is***

### What is domestic territory?

The domestic territory includes the political boundary as well as terrestrial waters, ships and aircrafts operated by the residents of the country, fishing vessels, oil and natural gas rigs which may be located outside the country, embassies and consulates of the country located abroad.

Now, let's take an example. We suppose that at the unit price of Rs. 100 a **country A** produces 500 units of goods and at the unit prices of Rs. 50 it produces 300 units of services. We denote unit price as P and units as G for goods and S for services. So, the GDP of this country will be written as follows:

GDP= PxG + PxS

∴ GDP=100x500 +50x300

GDP=Rs. 65000

As per the Economic Survey 2011-12, the monetary value of all the goods and services (i.e. GDP) produced in India during the fiscal year 2011-12 was ₹ 8912178 Crore at **Current Market Prices**. However, the **GDP at Factor Cost 2004-05 prices** was ₹ 5222027 Crore.

***The next questions we need to ask ourselves are as follows:***

- **What are GDP at Current Prices and GDP at Factor Cost 2004-05 Prices?**
- **Why the two GDP figures differ this much?**
- **Which of them is more relevant for a common man?**

Please note that GDP can be estimated at the current prices and constant prices. When GDP is estimated on the prevalent prices it is called **GDP at Current prices**. When it is estimated on the basis of some fixed prices prevalent at a particular point of time, this is called **GDP at constant prices**. The implication is very important, but we need to take an example.

We imagine that India produces only 3 goods viz. Cloth, House & Bread. **We also imagine that the output of these commodities does not change and remains the same for last few years.** The unit prices change and we take data of 2004-05 & 2011-12.

The following table represents this, kindly go through the simple calculations.

| Commodity | Output 2004-05 | Unit Price in 2004-05 | GDP at constant Prices 2004-05 | Output in 2011-12 | Unit price in 2011-12 | GDP at Current Prices 2011-12 |
|---|---|---|---|---|---|---|
| (a) | (b) | (c) | (b)x(c) | (d) | (e) | (d)x(e) |
| Bread | 1000 | 5 | 5000 | 1000 | 10 | 10000 |
| Cloth | 2000 | 10 | 20000 | 2000 | 15 | 30000 |
| House | 3000 | 15 | 45000 | 3000 | 20 | 60000 |
| GDP | | | 70000 | | | 100000 |

What you see in the above example is that despite of no changes in outputs, there is change in the GDP figures just because **the unit price changed**. This means that what we are producing today, if we compare with the 2004-05 prices, it would have been very short of current numbers. This also shows that the 1000 breads which India produced in 2011-12 have a money value of 10000 today, but India produced 1000 breads in 2004-05 @ ₹ 5000 only. So, even if we want to praise ourselves that we doubled the production of breads in these years, it would not be a real praise, because really we produced breads of only ₹ 5000. The real increase in this case is zero.

So, to be able to estimate the real increase in the domestic product, it should always be estimated at **constant prices.**

What we note from the above example is:

- GDP at current market prices ($GDP_{MP}$) is ₹ 100000
- But the GDP at Constant Prices is ₹ 70000.

What I did in the above example was just a simple calculation of *Roti, Kapda aur Makan* to understand the basics.

But, here we need to take one more thing into account. The market price of bread @ ₹ 10 per piece is fine, but what about the taxes (indirect tax such as excise duty) to produce such breads? It may be possible that we paid ₹10 for a

price of bread, but this cost includes ₹ 1 as excise duty. Though cost of production of bread was only ₹ 9, yet ₹ 1 added in its monetary value because of Indirect taxes.

This means that due to the **Indirect Taxes** (Indirect Taxes include Excise / custom on Goods , and Service Tax on Service) the $GDP_{MP}$ figure is not accurate. This is because; Market value of the Goods and services is always higher than the total cost of production, because the **market prices include the Indirect taxes**. So to arrive at a more accurate figure we need to decrease the **Indirect taxes from the $GDP_{MP}$**

∴ In above example, we conclude that the more accurate figure for bread was ₹ 9.

But the story does not end here. What we learn from some sources that Government of India provided 50 paisa subsidy for production of bread. Subsidy is the Government assistance paid to a business or economic sector. Government wants that the producers of breads in India are in worrisome state and need some assistance so that they can produce more breads.

- The result is that in producing a unit piece of bread, ₹ 9 was cost of the *Bread wala* and 50 paisa was the cost incurred by the Government of India.
- Thus, we learn that our correct figure is not ₹ 9 for a bread but is ₹ 9.50

**What we did in the above *Roti, Kapda and Makan* story?**

We added subsidy to GDP at Market Prices and reduced Indirect Taxes from it, so that we may arrive at a more accurate figure. This more accurate figure is called **GDP at Factor Cost**.

- The GDP at factor cost is nothing but an **attempt to reach at a more realistic value** of the GDP and it is represented by $GDP_{FC}$

So now we can write that:

$$GDP_{FC} = GDP_{MP} \text{ -Indirect Taxes + Subsidies}$$

Now we again come back to the figures of Economic Survey. As per the Economic Survey 2011-12, GDP was ₹ 8912178 Crore at **Current Market Prices** and **GDP at Factor Cost 2004-05 prices** was ₹ 5222027 Crore. We arrive on the second figure after **deducting the Indirect taxes** and **adding the subsidy.** Isn't it? That is why they differ so much. That is also why that the second figure is more relevant for a common man.

**But isn't this much gap between these two figures worrisome?**

**It is.** Earlier Economic Surveys had highlighted the growing divergence between the two measures of GDP. They survey says that

- This divergence is arising from the global financial crisis and the policy responses which included fiscal stimuli.
- There was negative growth in gross capital formation
- There was a slowdown in private final consumption expenditure

**What else does it show?**

We suppose that Government thinks that the producers of bread are still in need of more subsidies, because they can not survive. So Government increases the subsidy to ₹ 1.50 instead of 50 Paise. This means that now the product of bread would become ₹ 10.50

This means that **if there is more subsidy,** the more is difference between the $GDP_{FC}$ **&** $GDP_{MP}$ . The same is opposite for Indirect taxes.

If the Economic Survey says that Economy has grown by 6.9 % in this year, what does it indicate? Is it **GDP at market prices or GDP at Factor Cost?**

The Answer is GDP at **Factor Cost**. Let's have a look at this snippet:

**0.1 KEY INDICATORS**

| Data categories and components | Units | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|---|---|---|---|---|---|---|---|
| 1 GDP and Related Indicators | | | | | | | |
| GDP (current market prices) | ₹ crore | 4294706 | 4987090 | 5630063 | 6457352$^{PE}$ | 7674148$^{QE}$ | 8912178$^{AE}$ |
| Growth Rate | % | 16.3 | 16.1 | 12.9 | 14.7 | 18.8 | 16.1 |
| GDP (factor cost 2004-05 prices) | ₹ crore | 3564364 | 3896636 | 4158676 | 4507637$^{PE}$ | 4885954$^{QE}$ | 5222027$^{AE}$ |
| Growth Rate | % | 9.6 | 9.3 | 6.7 | 8.4 | 8.4 | 6.9 |

The above snippet from the latest economic survey says that GDP growth at factor Cost 2004-05 prices was 6.9%. The GDP growth at the current prices is 16.1 % , but since it is not a realistic value, no body even talks about it ☺

- The reason is simple because it takes into consideration, the other things such as Indirect taxes, Subsidies etc. which may affect the data.

From the above snippet, we also note the following information:

- Since 2006-07, India's real GDP growth is showing a *zig zag* curve. It was maximum 9.6 in 2006-07, minimum at 6.7 % in 2008-09. This is the only relevant info you have to note from the above snippet.

***The next question we ask ourselves is –***

**Why 2004-05 is taken as base year?**

The reason is that with the release of the quick estimates of National Income for year 2008-09, the Central Statistical Organization (CSO) and changed the base year of its NAS (National Accounts Statistics) from 1999-2000 to 2004-05. This also includes changes on account of certain refinements in definitions of some aggregates, widening of coverage , including of long term survey results and the normal revision in certain data in respect to the 2008-09.

Now,

**Let's move towards the individual side of these figures.**

We now know that GDP is the money value of all the final goods and services produced in the domestic territory of a country. We must understand that domestic territory of the country does not mean only political boundary but other things such as terrestrial waters, ships and aircrafts operated by the residents of the country, fishing vessels, oil and natural gas rigs which may be located outside the country, embassies and consulates of the country located abroad and all of them constitute the GDP. Here we need to take two examples.

- One is Mr. Anand Bose, who is posted in US in a software company.
- Another is Mr. David who is posted in India in Kentucky Fried Chicken.
- What **Mr. David produced here is a part of GDP**, but out of what he produced, he sent some money to his wife and kids at Kentucky, United States. This is called **Repatriation**. We imagine that he repatriated ₹ X from India to US.
- What Mr. Anand produced in US was a part of GDP of United States, but out of what he produced, he sent some money to his retired parents here in Kolkata. This is also called **Repatriation**. We imagine that he repatriated ₹ Y from United States to India.

In the GDP, we would need to add the money which Anand sent to India and reduce the money which David sent to Kentucky. Isn't it?

This also means that the figure **X minus Y** can be positive or negative, because any of Anand or David can repatriate more to his own country. This **X minus Y** is called **Net factor Income From Abroad** or **NFIA.**

In GDP figure, if we add what was repatriated to India and reduce what was repatriated out of India, then we come at a new figure which is called **Gross National Product**.

This means that

**GNP = GDP + NFIA**

As mentioned above, the value of NFIA may be positive or negative. It is positive when Indians living outside the country add more value. It is negative when the Foreigners living inside the country add more value. This also means that when NFIA has a positive value, GNP is more than GDP and, when NFIA has negative value, GNP is less than GDP.

### What is the use of GNP?

GNP is a broader figure than GDP because it also takes in account what Indian abroad produced there and what foreigners here produced.

- As we produce GDP at Current Market Prices and Factor Cost at 2004-05 Prices, we can also produce figures of GNP at Current Market Prices and Factor Cost at 2004-05 Prices. Obviously the later value will be more realistic.

While deriving the above figures, we still forget something very important.

We go back to our *breadwalla* example. The *breadwalla* Mr. Aiyyer has a small bakery in a shop where he has some small machines such as ovens to bake the breads. What he is producing is not a correct figure because every year his oven gets lesser in value due to use wear and tear. This loss due to wear and tear of capital goods such as building, machines, equipments, tools, trucks, tractors, trains, airplanes is called **Depreciation**.

Depreciation is a common and ubiquitous animal. All *tangible* capital goods are subject to depreciation. Deprecation is also known as **Consumption of the Fixed Capital.**

The GDP figure is fine, but it is a Gross Figure. We can not arrive at a net figure unless we deduct what we lost in the **Consumption of the Fixed Capital as depreciation. So,**

- When we deduct depreciation from GDP, we arrive at NDP i.e. Net National Product.

This means that we can write:

**NDP=GDP – depreciation**

Similarly Gross National Product may also be converted into Net National Product by deducting the depreciation. This means that when **Net Domestic Product** also includes the **Net Factor Income Abroad**, it is called **Net National Product**. It is represented as follows:

**NNP= NDP + NFIA**

Or we can write it as follows also:

**NNP=GDP-Depreciation + NFIA**

- Here we note that NNP may also be more or less than NDP, depending upon the positive or negative value of the NFIA.

Here we can derive one more figure:

$$NDP_{MP} = NNP_{MP} - \text{NFIA}$$

So, basically, NNP describes the depreciation, compared to the GNP. Naturally, the value of NNP is always less then the GNP.

If we divide the **Net National Product** with the population of the country, we arrive at a figure which is called **Per Capita Income**. Thus, Percapita Income is the **Net National Product**, divided by Population of the country. The Economic Survey makes a broad estimate of Percapita income as per the figures released by CSO.

The Per Capita income broadly refers to the following formula:

$$\text{Per Capita income} = \frac{\text{GDP} - \text{Depreciation} + \text{NFIA}}{Population}$$

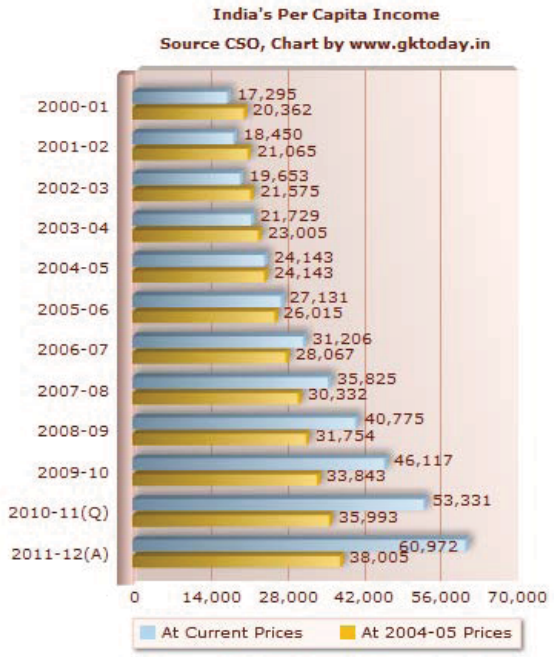
Thus, it should be very clear to you that depending upon the value of GDP , the **Per Capita Income** is also represented into two figures viz. **Per Capita Income at Current Prices** and **Per Capita Income (factor cost at current prices).** Out of them, the *value of later is generally lesser and is a more realistic value.*

- The Economic Survey presents a rosy picture about the Per capita Income by representing India's Per Capita Net National Income (factor cost at current prices) at Rs. 60972 for 2011-12.

The Above figure was released by CSO in February 2012. As per this release:

- The per capita income in real terms (at 2004-05 prices) during 2011-12 is likely to attain a level of Rs. 38,005 as compared to the Quick Estimate for the year 2010-11 of Rs. 35,993. The growth rate in per capita income is estimated at 5.6 per cent during 2011-12, as against the previous year's estimate of 6.4 per cent.
- The per capita income at current prices during 2011-12 is estimated to be Rs. 60,972 as compared to Rs. 53,331 during 2010-11, showing a rise of 14.3 per cent.

The following chart shows the Per Capita Income of India for last few years:




**Now, let's move ahead to various sectors:**

We all should know that Gross Domestic Production or GDP is made up of various components, which are broadly classified into the **Primary, Secondary and Tertiary sector of the Economy**. Primary Sector is agriculture and related activities. Secondary Sector includes the manufacturing activities, Industries etc. Tertiary sector, which is now-a-days has become the engine of growth of the country, is the service sector. The CSO classifies the above sectors in the following:

1. Agriculture, Forestry, Fishing, Mining and Quarrying
2. Manufacturing, Construction, Electricity, Gas and water supply
3. Trade, Hotels, Transport and Communication.
4. Financing, Insurance, Real estate and Business Services,
5. Public Administration, Defence and Other related Services.

The above 5 heads represent all the sectors of Indian Economy. They can be further divided , while data of a particular head is presented. Here is the snippet from Economic Survey which shows the Rate of Growth in real GDP among these sectors

**Table 1.1 : Rate of Growth of GDP at Factor Cost at 2004-2005 Prices (per cent)**

| | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10PE | 2010-11QE | 2011-12AE |
|---|---|---|---|---|---|---|---|
| Agriculture, forestry & fishing | 5.1 | 4.2 | 5.8 | 0.1 | 1.0 | 7.0 | 2.5 |
| Mining & quarrying | 1.3 | 7.5 | 3.7 | 2.1 | 6.3 | 5.0 | -2.2 |
| Manufacturing | 10.1 | 14.3 | 10.3 | 4.3 | 9.7 | 7.6 | 3.9 |
| Electricity, gas & water supply | 7.1 | 9.3 | 8.3 | 4.6 | 6.3 | 3.0 | 8.3 |
| Construction | 12.8 | 10.3 | 10.8 | 5.3 | 7.0 | 8.0 | 4.8 |
| Trade, hotels, transport & communication | 12.1 | 11.7 | 10.7 | 7.6 | 10.3 | 11.1 | 11.2 |
| Financing, insurance, real estate & business services | 12.6 | 14.0 | 12.0 | 12.0 | 9.4 | 10.4 | 9.1 |
| Community, social & personal services | 7.1 | 2.8 | 6.9 | 12.5 | 12.0 | 4.5 | 5.9 |
| **GDP at factor cost** | **9.5** | **9.6** | **9.3** | **6.7** | **8.4** | **8.4** | **6.9** |

*Source* : CSO.
*Notes:* PE : Provisional Estimate, QE: Quick Estimate, AE: Advance Estimate.

When we discuss the growth of GDP with reference to the above sectoral heads, it becomes sectoral growth in GDP. If we discuss only the growth figures, they give a better picture of the trends in the economy. For 2010-11, the projected growth rate in Agriculture, Forestry & Fishing was 5.4%, which was later corrected to 7%. However, for 2011-12, the projected figure for growth in agriculture sector is 2.5%. For the last few years survey has been predicting robust growth in agriculture but this year, it has given a more realistic figure of 2.5%/.

- There is a negative growth in the Mining and Quarrying activities and stands at -2.2%.
- The manufacturing sector which was at highest growth rate in 2006-07 at 14.3 % grew by 10.3% in 2007-08 and by 7.6% rate in 2010-11. The rate is now slowing down and the figure for this year is 3.9%.
- Similarly, there is a stagnation in growth of service (Trade & Tourism) sector. It grew by 11.7% last year, but this year the survey says that it will grow by 11.2%.
- Almost all sectors showing the signs of a recession in the Indian Economy.

Now, let's come to **Gross Domestic Saving & Capital Formation**

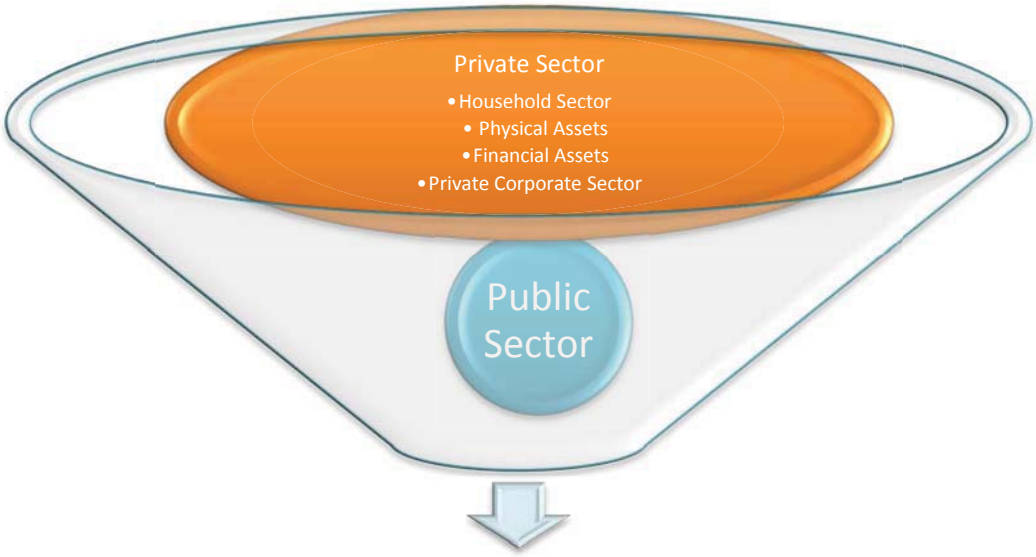
We all know that GDP is the money value of all the final goods and services produced in the domestic territory of a country in a year's time. So, Gross Domestic Product (GDP) measures the total output of goods and services for final use occurring within the domestic territory of a given country, regardless of the allocation to domestic and foreign claims.

A part of this total monetary value **i.e. GDP is consumed**. What left after the consumption is **"saving".** So, Gross Domestic Saving is the **Gross Domestic Product minus final consumption**.

- The saved money is either kept with the public or is invested back. When the money is invested back, we come to the figures known as **Capital Formation**.
  - The Ratio of saving and investments is very important for the economic health of the country.

Please note that **Gross Domestic Saving** is different from the **Gross National Savings**, which is equal to gross domestic savings (**gross domestic product minus final consumption**) plus net income and net current transfers from abroad.

The **Gross Domestic Saving** has two parts. One is Public Sector, another is Private sector. The largest segment of Private sector is the **Household sector**. Another segment of the Private sector is the private corporate sector. The relation of these components is shown as follows:




## Gross Domestic Saving

The above graphic shows that the components of the Gross Domestic Savings. The Household may keep the financial assets with them or the physical assets such as Gold and other valuables.

The Economic Survey 2011-12 presents the following picture of the Savings in the country for 2010-11:

**Table 1.4 : Ratio of Savings and Investment to GDP (at current market prices per cent)**

| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10PE | 2010-11QE |
|---|---|---|---|---|---|---|---|
| **Gross domestic saving** | **32.4** | **33.4** | **34.6** | **36.8** | **32.0** | **33.8** | **32.3** |
| Public sector | 2.3 | 2.4 | 3.6 | 5.0 | 1.0 | 0.2 | 1.7 |
| Private sector | 30.1 | 31.0 | 31.0 | 31.8 | 31.1 | 33.6 | 30.6 |
| Household sector | 23.6 | 23.5 | 23.2 | 22.4 | 23.6 | 25.4 | 22.8 |
| Financial saving | 10.1 | 11.9 | 11.3 | 11.6 | 10.1 | 12.9 | 10.0 |
| Saving in physical assets | 13.4 | 11.7 | 11.9 | 10.8 | 13.5 | 12.4 | 12.8 |
| Private corporate sector | 6.6 | 7.5 | 7.9 | 9.4 | 7.4 | 8.2 | 7.9 |
| **Gross capital formation (investment)** | **32.8** | **34.7** | **35.7** | **38.1** | **34.3** | **36.6** | **35.1** |
| Public sector | 7.4 | 7.9 | 8.3 | 8.9 | 9.4 | 9.2 | 8.8 |
| Private sector | 23.8 | 25.2 | 26.4 | 28.1 | 24.8 | 25.2 | 24.9 |
| Corporate sector | 10.3 | 13.6 | 14.5 | 17.3 | 11.3 | 12.7 | 12.1 |
| Household sector | 13.4 | 11.7 | 11.9 | 10.8 | 13.5 | 12.4 | 12.8 |
| **Gross fixed capital formation** | **28.7** | **30.3** | **31.3** | **32.9** | **32.3** | **31.6** | **30.4** |
| Stocks | 2.5 | 2.8 | 3.4 | 4.0 | 1.9 | 2.7 | 3.3 |
| Valuables | 1.3 | 1.1 | 1.2 | 1.1 | 1.3 | 1.8 | 2.1 |
| **Saving-investment gap** | -0.4 | -1.3 | -1.1 | -1.3 | -2.3 | -2.8 | -2.8 |
| Public sector | -5.1 | -5.5 | -4.7 | -3.9 | -8.5 | -9.0 | -7.1 |
| Private sector | 6.3 | 5.8 | 4.6 | 3.7 | 6.3 | 8.5 | 5.8 |

*Source* : CSO.
*Note* : Totals may not tally due to adjustment for errors and omissions.

Survey says that the gross domestic savings as a ratio of GDP at current market prices (savings rate) declined from 33.8 per cent in 2009-10 to 32.3 per cent in 2010-11.

- This decline is accounted for by a reduction in private savings, primarily household savings in financial assets, and somewhat by a reduction in corporate savings.
- Public savings on the other hand registered an increase, **thanks to fiscal consolidation**.

*Our Question is*

**How Fiscal Consolidation improves public saving?**

It's a very important question, but answer is practically easy. You must know that **Fiscal consolidation is associated with a rise in public saving and a fall in public investment**. Fiscal consolidation refers to the government strategies that are aimed at minimizing deficits while also curtailing the accumulation of more debt. We will discuss more in Public finance, but here we have to note that when Government goes for fiscal consolidation, it wants to lower the level of debt while simultaneously limiting the generation of new debt obligations, so that it can improve financial stability by creating a more desirable financial position. The government would raise taxes or impose new taxes to boost tax revenues. To reduce debt, it will need to save more thus Public Savings would increase. To reduce debt, it will also spend less, so Public Investment would fall.

*Then we ask one more question here:*

**The Survey says that India's Per Capita Income has risen to above 60K mark. Then, why there is reduction in private savings?**

The reasons are many but it is largely attributable to inflationary tendencies in the economy during the period that resulted in higher growth of private final consumption expenditure than of personal disposable income and partly to a reduction in real interest rate.

Our Next Question is

**What exactly is Capital formation?**

In simple words Gross Capital Formation is **Investment.** When people save, they tend to invest. The percentage of the investment made each year out of the total GDP is called **Gross Capital Formation**.

So, Rate of Gross Capital Formation is arrived as follows:

- **Rate of Capital Formation = (Investments /GDP) X 100**

The next question is

**What is the importance of Gross Capital Formation?**

The importance of the **Gross Capital formation** lies in the fact that **this is that part of GDP which helps in the growth of the GDP itself**. This is a must for achieving high rate of production, capital formation, changes in production techniques and changing in the outlook of the people themselves.

To achieve, the **Optimum rate of economic growth, the rate of capital formation should be above 40%.** In India, the gross capital formation for the year of 2009-10 was 36.6% of the GDP. The following table shows the trend of the Investment as part of GDP in recent few years:

| Data categories and components | Units | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|---|---|---|---|---|---|---|---|
| Savings Rate | % of GDP | 34.6 | 36.8 | 32.0 | 33.8 | 32.3 | na |
| Capital Formation (rate) | % of GDP | 35.7 | 38.1 | 34.3 | 36.6 | 35.1 | na |

What we notice from the above table is as follows:

The global crisis in 2008-9 reflected in negative growth in gross capital formation. Post-crisis, the growth in gross fixed capital formation has been lukewarm. Still India lacks the optimum rate of Capital formation.

Our next question is

### What is Savings-investment Gap and what is its importance?

The difference between the part of GDP as Gross domestic saving and part of GDP as Gross capital formation (investment) will be called Saving-Investment Gap. Let's have a look on a table in the survey:

**Table 1.4 : Ratio of Savings and Investment to GDP (at current market prices per cent)**

| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10PE | 2010-11QE |
|---|---|---|---|---|---|---|---|
| Gross domestic saving | 32.4 | 33.4 | 34.6 | 36.8 | 32.0 | 33.8 | 32.3 |
| Public sector | 2.3 | 2.4 | 3.6 | 5.0 | 1.0 | 0.2 | 1.7 |
| Private sector | 30.1 | 31.0 | 31.0 | 31.8 | 31.1 | 33.6 | 30.6 |
| Household sector | 23.6 | 23.5 | 23.2 | 22.4 | 23.6 | 25.4 | 22.8 |
| Financial saving | 10.1 | 11.9 | 11.3 | 11.6 | 10.1 | 12.9 | 10.0 |
| Saving in physical assets | 13.4 | 11.7 | 11.9 | 10.8 | 13.5 | 12.4 | 12.8 |
| Private corporate sector | 6.6 | 7.5 | 7.9 | 9.4 | 7.4 | 8.2 | 7.9 |
| Gross capital formation (investment) | 32.8 | 34.7 | 35.7 | 38.1 | 34.3 | 36.6 | 35.1 |
| Public sector | 7.4 | 7.9 | 8.3 | 8.9 | 9.4 | 9.2 | 8.8 |
| Private sector | 23.8 | 25.2 | 26.4 | 28.1 | 24.8 | 25.2 | 24.9 |
| Corporate sector | 10.3 | 13.6 | 14.5 | 17.3 | 11.3 | 12.7 | 12.1 |
| Household sector | 13.4 | 11.7 | 11.9 | 10.8 | 13.5 | 12.4 | 12.8 |
| Gross fixed capital formation | 28.7 | 30.3 | 31.3 | 32.9 | 32.3 | 31.6 | 30.4 |
| Stocks | 2.5 | 2.8 | 3.4 | 4.0 | 1.9 | 2.7 | 3.3 |
| Valuables | 1.3 | 1.1 | 1.2 | 1.1 | 1.3 | 1.8 | 2.1 |
| Saving-investment gap | -0.4 | -1.3 | -1.1 | -1.3 | -2.3 | -2.8 | -2.8 |
| Public sector | -5.1 | -5.5 | -4.7 | -3.9 | -8.5 | -9.0 | -7.1 |
| Private sector | 6.3 | 5.8 | 4.6 | 3.7 | 6.3 | 8.5 | 5.8 |

The above table says that overall savings-investment gap was implicit as 2.3 per cent in 2008-09 and 2.8 per cent in 2009-10. It has remained 2.8% in 2010-11. The survey says that **this gap is there to stay.** The Saving-Investments gap is a challenge for economies. How?

We assume that Gross Domestic Saving in 2010-11 is ₹ 32.3. This means this is the money accumulated by Indians (It is domestic saving). The saving will finance the investments. But if the investments in 2010-11 is ₹ 35.1 , would mean that **all investments were not financed by India's own people's savings**. This means that part of the investments were financed by Foreign Sources.

But we should know that Savings and investment are important drivers in taking the economic growth process forward. If there is no gap, it means that the economy was able to accumulate high levels of domestic investment financed by domestic savings. If there is a gap, it will show that **there was a need of foreign investment**. Obviously the investments which are financed by the domestic savings are preferred in comparison to the investments that are financed by foreign capital. Still, the FDI is the tool that is used to fill the gap.

Economic Survey suggests that the Government should do a fine-tuning of policies to attract foreign direct investments. In the last few months we see that RBI has been tightening the screws to fight inflation. This resulted in high interest rates that dampened investment growth. Then there was a slump in global economy and the cost of borrowing rose. At the same time, the savings rate also declined from 33.8 per cent in 2009-10 to 32.3 per cent in 2010-11, due to a reduction in private savings — primarily household savings in financial assets, and slack ening corporate savings. The overall result is that investment requirements in India would continue to exceed the availability of resources from domestic savings. The survey suggested covering the savings-investment gap through foreign direct investment. It added there were several sectoral issues that needed to be addressed and continuously fine-tuned to attract FDI.

### Now let's talk about the Consumption

What left after the consumption is "saving". So, Gross Domestic Saving is the Gross Domestic Product minus final consumption.

Please note that the estimates of private consumption expenditure are generated in India by two agencies, viz. **Central Statistical Organisation (CSO)** and **National Sample Survey Organisation (NSSO).** CSO estimates in National

Account Statistics (NAS) are obtained using commodity flow approach, while NSSO estimates are based on Household Consumption Expenditure Surveys (HCES).

The NSSO estimates are based on Household Consumption Expenditure Surveys (HCES), which are conducted in every five years with a much larger sample and annually with a relatively thin sample. In this sample survey, the consumption expenditure of a random sample of households is ascertained directly by canvassing a well-designed schedule of enquiry. Though HCES directly does not provide the countrywide total consumption expenditure, the NSSO estimate of total household consumption expenditure of the domestic economy can be obtained as the product of estimates of annual per capita consumption expenditure and the population projections based on the population census.

Our question is

**What is implication of Consumption in Economic Growth?**

Please note that the Final Consumption has two components viz.

- The **Private final consumption expenditure**: It consists of the actual and imputed expenditures of households and includes data pertaining to durable and non-durable goods and services. It is essentially a measure of goods and services targeted towards individuals and consumed by individuals
- The **Government final consumption expenditure**. The GFCE is the total government expenditure on goods and services used for the individual and collective consumption of the people.

Since, there has been a slump trend in gross domestic savings as a proportion of GDP, the Economic Survey 2011-12 also notes a slump in the Private Consumption. The Survey notes that Government final consumption expenditure is decelerating sharply in the fiscal year 2011-12. This is evident from the following snippet generated from the Economic Survey:

| | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10$^{PE}$ | 2010-11$^{QE}$ | 2011-12$^{AE}$ |
|---|---|---|---|---|---|---|---|
| 1. Total final consumption expenditure | 8.7 | 7.7 | 9.4 | 7.7 | 8.3 | 8.1 | 6.0 |
| 1.1 Private final consumption expenditure | 8.6 | 8.5 | 9.4 | 7.2 | 7.2 → | 8.1 → | 6.5 |
| 1.2 Government final consumption expenditure | 8.9 | 3.8 | 9.6 | 10.4 | 14.3 → | 7.8 → | 3.9 |

In the above table we see that **Government Consumption (GFCE) saw a sudden drop** in expenditure from 2009-10 to 2010-11. Last year this was largely ascribed to the **Base Effect.**

Our questions here are:

- **What is Government Final Expenditure Consumption or GFCE?**
- **What is Base Effect?**
- **What factors affect GFCE?**
- **What GFCE indicates?**

Please note this very important point:

Government Consumption includes -

- All government current expenditures for purchases of goods and services (including compensation of employees) for the use of individuals. This means that social sector expenditures such as subsidy, cash subsidies, healthcare programmes, education programmes are counted in Government Consumption.
- It also includes most expenditure on national defence and security, but **excludes the following**
  - **Government military expenditures that are part of government capital formation**.
  - Payment of interest on public debt

- Expenditure on capital goods by Public companies.

This means that the more is the Government expenditure on social sector schemes, the more is the value of GFCE. Government final consumption expenditure shed light on the involvement of governments in providing goods and services for the direct needs of the population. A high government share in the provision of individual consumption goods and services (which may be called social transfers) is often found in countries known as welfare states.

The Base effect refers to the tendency of a small change from a low initial amount to the current amount which is translated into a large percentage and appears as large.

To understand this we take a simple example:

- We assume that government consumes ₹ 100 in 2001 and in the following years, the consumption show the following trends.

| Year | Consumption | Growth | Growth % |
|---|---|---|---|
| **2001** | Rs. 100 | - | - |
| **2002** | Rs. 90 | -10 | -10% |
| **2003** | Rs. 80 | -10 | -11.11% |
| **2004** | Rs. 70 | -10 | -12.5 % |
| **2005** | Rs. 60 | -10 | -14.2 % |
| **2006** | Rs. 80 | +20 | 25% |

In this example, we note that though as compared to the **Year 2001,** the growth is still negative. But it appears that the growth in 2006 has jumped to 25%. This is called **Base Effect**. The Base effect is generally used in terms of inflation but is used almost in all important economic indicators. The Government Consumption in 2010-11 was expected to be very low largely due to the base effect.

However, we also note that Government final consumption expenditure as gone down from 7.8% to 3.9%. Was Base effect responsible for this?

Answer is **no.**

This year, the survey expects that the GFCE is going to be less thanks to efforts of the government to reduce the burden of debts and subsidy. We will discuss more when we discuss the expenditure budget of India.

## Chapter II: Inflation

### What is Inflation?

Inflation or "*महंगाई* in Hindi" is a rise in the general level of prices of goods and services in an economy over a period of time. When the general price level rises, each unit of currency buys fewer goods and services. This means that the **purchasing power of money gets eroded**. This implies that **there is a loss in real value in the internal medium of exchange and unit account in the economy**. The impacts of inflation on economy are good also apart from bad. The bad impacts are:

- Decrease in the real value of money and other monetary items over time
- Uncertainty over future inflation may discourage investment and savings
- High inflation may lead to shortages of goods if consumers begin hoarding out of concern that prices will increase in the future.

### What are good effects of Inflation?

The good effects include:

- Inflation ensures that the central banks can adjust nominal interest rates (intended to mitigate recessions)
- Inflation encouraged investment in non-monetary capital projects.

The **most important reason of inflation is excessive growth of the money supply**. A long sustained period of inflation is caused by money supply growing faster than the rate of economic growth. When there is more money in the system, too much money chases too few goods. That is why the RBI takes tight policy measures to reduce money in the system. Another important reason for inflation **is increased demand for goods and services**, or changes in available supplies such as during scarcities, as well as to growth in the money supply.

The job of keeping the rate of inflation low and stable is usually given to monetary authorities. Generally, these monetary authorities are the central banks that control monetary policy through the setting of interest rates, through open market operations, and through the setting of banking reserve requirements.

There are three major types of inflation, which is also known as **Triangle Model**.

- **Demand-pull inflation** is caused by increases in aggregate demand due to increased private and government spending, etc. Demand inflation is constructive to a faster rate of economic growth since the excess demand and favourable market conditions will stimulate investment and expansion. Demand-pull theory states that the rate of inflation accelerates whenever aggregate demand is increased beyond the ability of the economy to produce (its potential output). Hence, any factor that increases aggregate demand can cause inflation. However, in the long run, aggregate demand can be held above productive capacity only by increasing the quantity of money in circulation faster than the real growth rate of the economy.
- **Cost-push inflation,** also called "supply shock inflation," is caused by a drop in aggregate supply (potential output). This may be due to natural disasters, or increased prices of inputs. For example, a sudden decrease in the supply of oil, leading to increased oil prices, can cause cost-push inflation. Producers for whom oil is a part of their costs could then pass this on to consumers in the form of increased prices.
- **Built-in inflation** is induced by adaptive expectations, and is often linked to the "price/wage spiral". It involves workers trying to keep their wages up with prices (above the rate of inflation), and firms passing these higher labor costs on to their customers as higher prices, leading to a 'vicious circle'. Built-in inflation reflects events in the past, and so might be seen as hangover inflation.

**Our question is:**

**To contain inflation, what is the difference between measures taken by the RBI and measures taken by the Government of India? Is there any conflict?**

Here we must know the fundamental thing that the **RBI takes monetary measures** while the G**overnment takes fiscal measures** to contain inflation.

As part of the monetary policy review, the RBI takes suitable measures to moderate demand to levels consistent with the capacity of the economy to maintain its growth without provoking price rise. It has been already raising its key policy rates several times and has narrowed the liquidity adjustment facility (LAF) corridor to reduce volatility of rates.

The government can take the following Fiscal Measures to contain inflation:

- Reducing Import Duties
- Allowing imports of the commodities which are scarce in market.
- Removing levy obligations in case of sugar
- Banning exports of commodities such rice and oils.
- Imposing minimum export prices
- Suspending or banning the futures trading is come commodities.
- Raising the stock limit of some commodities.

- Making available the commodities via various organizations such as NAFED and NCCF. Like the Government askled them to undertake sale of onions at Rs 35 per kg from their retail outlets at various locations, with suitable budgetary support.

Now we take the following questions:

- **How Inflation is measured in India?**
- **What is Headline Inflation & Core Inflation?**

Inflation can be measures in the following two ways:

- **Based on population coverage**: Here the inflation indices are developed to understand the inflation levels for certain population sets like producers, consumers etc. Hence we have Producer Price Index and Consumer Price Indices (CPI) to measure inflation levels at both producers and consumers. Within CPI, countries further divide the indices as CPI-Urban and CPI-Rural to capture the differences across two different kinds of consumer populations.
- **Based on items coverage:** Prices of some items are more volatile than others like food and fuel. This could provide conflicting signals to policymakers as the overall inflation could change because of a selected few goods. Hence, separate indices can be developed separating the volatile items from the main index.

This is where the difference of headline vs. core arises.

- Headline inflation includes all the items and core inflation usually excludes food and fuel items.
- There is another variant of core inflation called trimmed mean inflation. In this instead of just excluding fuel and food items, we exclude components that show the most extreme monthly price changes.

**Now, lets note some important points:**

- We all know that the **Wholesale Price Index (WPI)** has been the main measure of the rate of inflation in India. The index is broadly divided into three sub-categories – Primary Articles, Fuel Products and Manufactured Products.
- This index **does not cover non-commodity producing sectors viz. services and non-tradable commodities**.
- The data is released by Economic Advisor to Commerce Ministry. Till Oct-2009, WPI was released weekly with a lag of fortnight and is **now released monthly**.
- The other important measure is the consumer price index inflation (CPI).
- In India, we have four CPI indices based on different population sets - CPI for industrial workers (CPI-IW), CPI for Agricultural Labourers (AL), CPI for Rural Labour (CPI-RL) and CPI for urban non-manual employees (UNME).
- Amidst all these measures, CPI-IW is seen as the best measure as its coverage is broader than the other indices of CPI.
- Labour Bureau releases CPI-IW, CPI-AL and CPI-RL with a one month lag. CPI-UNME has been discontinued and CSO has started releasing new CPI which will be discussed in this module.

**What is the most comprehensive measure of Inflation?**

The most comprehensive measure is **GDP deflator** which is measured as ratio of GDP at current prices to GDP at constant prices. Since ***it encompasses the entire spectrum of economic activities*** including services, the scope and coverage of national income deflator is wider than any other measure. This data is released by the Central Statistical Organisation (CSO) but is not used **as it comes quarterly and with a 2 month** lag.

**Our next question is: which is better to measure inflation - CPI or WPI?**

Here we note that Consumer price index (CPI) works better than wholesale price index (WPI) in capturing market dynamics and arriving at a more realistic inflation forecast. **CPI is a better indicator of demand side pressures** than the WPI, as it takes into account the common man who is pinched by inflation , and there is no denying that consumer prices better reflect demand side pressures than wholesale prices.

Some the important issues to ponder over in case of WPI are as follows:

- If there is a sustained rise in wholesale prices , then it may result in an eventual increase in prices by retailers or a squeeze in their margins.
- 2. If the demand is strong, retailers may exercise pricing power and pass on the increase in wholesale prices to consumers. In case demand is weak, retailers will be forced to partly absorb the increase in wholesale prices in their margins.

But the issue has been that **we did not have a single CPI that could be representative of the whole country**. RBI has been still using the WPI for its inflation related policies.

### New WPI Series

A new WPI series with 2004-05 base was released on 14 September 2010. A representative commodity basket comprising 676 items has been selected and weighting diagram derived for the new series. The total number of price quotations has also increased from 1918 in the old series to 5482 in the new series, indicating better representation of the prices in the wholesale markets. Sector-wise price quotations have increased from the old to new series from 455 to 579 in primary group and from 1391 to 4831 in the manufactured products group. This is shown in the following table:

**Major Changes in the Weights and Commodities in the Revised WPI Series**

| Items | Weights | | No. of Commodities | | |
|---|---|---|---|---|---|
| | New Series (base: 2004-05) | Old Series (base: 1993-94) | New Series (base: 2004-05) | Old Series (base: 1993-94) | New Items Added/ Revised |
| **All Commodities** | **100.00** | **100.00** | **676** | **435** | **417** |
| Primary Articles | 20.12 | 22.03 | 102 | 98 | 11 |
| Food Articles | 14.34 | 15.40 | 55 | 54 | 1 |
| Non-Food & Minerals | 5.78 | 6.63 | 47 | 44 | 10 |
| Fuel and Power | 14.91 | 14.23 | 19 | 19 | 0 |
| Manufactured Products | 64.97 | 63.75 | 555 | 318 | 406 |
| Food Products | 9.97 | 11.54 | 57 | 41 | 25 |
| Non-Food Products | 55.00 | 52.21 | 498 | 277 | 381 |

Source : The Office of the Economic Adviser, Ministry of Commerce and Industry.

Some of the important items included in the new series basket are **flowers, lemons, and crude petroleum in primary articles** and ice cream, canned meat, palm oil, readymade/instant food powder, mineral water, computer stationery, leather products, scooter / motorcycle tyres, polymers, petrochemical intermediates, granite, marble, gold and silver, construction machinery, refrigerators, computers, dish antenna, transformers, microwave ovens, communication equipment (telephone instruments), TV sets, VCDs, washing machines, and auto parts in manufactured products.

***Next question is:***

### What was the trend in WPI Inflation in this year?

In the last year's economic survey, it was stated that the Food inflation had been unexpectedly high which was driven by surging prices of vegetables, fruits, dairy, oilseeds, and spices. It was unexpected because good rainfall in 2010 was expected to bring down prices, but it did not. One of the major issues was **that there was a change in "Consumption Pattern** as people used more of Protein foods, though there was inflation in cereals (wheat, rice) and pulses, which together provide most of the energy and protein intake of households in India, especially of the poor. But the surging prices of other foods caused the overall food inflation to rise.

Through out this year, the Wholesale price index (WPI) inflation, after remaining in an elevated zone at over 9 per cent, has been falling sharply since December 2011. The reasons cited by the Economic Survey are as follows:

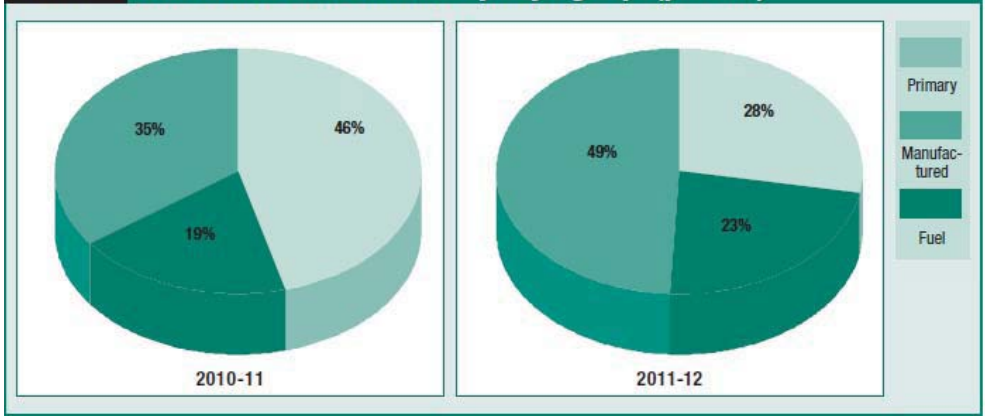
- The food prices got lowered
- There was (and is) a global economic slowdown

- It has been almost two years of domestic monetary policy tightening.
- Fiscal & Administrative measures put in place by the government.

For this year, some of the contributory factors cited by survey are as follows:

- Higher primary articles prices driven by vegetables, eggs, meat, and fish due **to changing dietary pattern of consumers**.
- **Increasing global commodity prices** especially metal and chemical prices which ultimately led to higher domestic manufactured prices.
- Persistently **high international crude petroleum prices** in the last two years averaging around US $ 111 per barrel in 2011 (Jan.-Dec.) as compared to US $ 80 per barrel (Jan.-Dec.) in 2010.

Figure 4.2 Contribution to WPI inflation by major groups (per cent)




The survey says that the monetary policy remained focused on controlling inflation and anchoring inflationary expectations, with 13 adjustments in policy rates since March 2010, which has slowed growth. These effects, coupled with a favourable base effect in prices and continued global slowdown, are expected to moderate inflation to around 6.5 to 7.0 per cent by March 2012; inflation is expected to come down further during 2012-13.

Going global, the survey says that global economy witnessed fresh spells of crisis during 2011-12, with domestic business and consumer confidence dampening on the back of the deepening sovereign debt crisis in Europe. Global commodity prices, particularly those of food and metals, softened from high levels, even as crude oil prices remain elevated and are a major source of uncertainty and risk. All emerging and developing economies (EDEs) witnessed higher inflationary pressures with consumer price inflation for EDEs rising to 7.2 per cent for 2011, while that for advanced economies (AEs) was 2.7 per cent. Looking ahead, vigilance is called for in getting back to a low-inflation/sustained high-growth path in India, by renewed focus on supply-side measures and improved fiscal consolidation, including stepped-up regular adjustments in domestic energy prices. High levels of food stocks and producer responses to higher protein and other food prices should help maintain overall price stability ahead.

Question:

### What is impact of International Food prices on Indian Food Prices?

Some spill overs of global prices to Indian markets are inevitable. But world trade in agriculture is often very thin, as there are large trade restrictions and tariff wedges between domestic and international prices. So, in India, the domestic food prices though cannot be fully insulated from global ones, yet **volatility of global prices is far greater than that of domestic prices**. The trends show that India's prices have been much more stable, avoiding the highs and lows. Recently, the Cereal prices have been decreasing in India, as compared to the Global Prices.

### How Engel's Law is related to Food Inflation in India?

The sudden rising is seen in the prices of vegetables, spices, dairy, and similar products. One explanation, the survey tries to give is that the rising incomes in India are driving prices higher, as consumers are presumed to be shifting from low-value products to higher value ones (**Engel's Law**).

However, there is a demand side explanation to these phenomena. There might be the generally high supply elasticity in such products that should prevent this. When some unexpected supply or demand shocks happen, it becomes often easier for commodity prices to spike temporarily, which is usually unrelated to fundamentals and driven sometimes by local cartelization or other conditions such as sudden flows of speculative capital into thin commodity futures markets.

The Survey gives example of Onion to explain this: Onion prices surged from Rs. 15 per kg to over Rs. 80 per kg over a matter of weeks, attributed popularly to the effects of extended rainfall and damaged crop in Nashik. However, onions are in fact grown all over India, and the all-India market is generally well-behaved and competitive—in that local prices converge to national ones. However, in the presence of unanticipated supply or demand shocks, local onion markets do fragment and become much more 'ill-behaved' and it is possible to observe sudden temporary spikes and divergence that is more consistent with local cartelization conditions, supported by cascading entry barriers along the supply chain (including the restrictions of the Agricultural Produce Marketing Act [APMC] and the restrictions and fees at mandis).

**Why there has been a change in reporting of Inflation in India recently?** **(Kindly expect one question from the following paragraph)**

Currently, the WPI for all commodities including manufactured products is released only on a monthly basis. However, until recently WPI for primary articles and the fuel group was also being released on a weekly basis. This practice was intended to help in analysing the trends for policymaking as these commodities are essential in nature.

- But it was observed over a period of time that there was a tendency for upward revisions in the indices reported once the final numbers were later released. The higher frequency weekly reporting was thus prone to more **statistical 'noise'** and sometimes provided a misleading picture, so the trade-off was between the more frequent and less reliable data and less frequent but more reliable data.
- International practice for reporting CPI inflation is also on a monthly basis.

In view of this, the Cabinet Committee on Economic Affairs (CCEA) in its meeting held on 24 January 2012, agreed to discontinue the weekly release of WPI for the commodities/items under the groups 'primary articles' and 'fuel and power' with immediate effect. The last weekly WPI for the week ending 14 January 2012 was released on 27 January 2012. WPI shall, henceforth, be released on a monthly basis only.

**Change in dietary habits towards protein-rich foods has been a key driver of high food price inflation in India. Was MGNREGA responsible for this? If not, then what?**

The food inflation has also been a result of (a) rising nominal rural wages helped by the expansion of the Mahatma Gandhi National Rural Employment Guarantee (MGNREGA) scheme; (b) inadequate producer supply responses relative to demand; and (c) shocks from global food inflation, as India integrates with the world.

However, the shift to more expensive proteins is very unlikely to be from rising incomes in rural areas from income groups benefited by the MGNREGA. Incomes of average rural households in the bottom two deciles (MGNREGA target beneficiaries), for example, would have to jump to those of the rich farmer category, the sixth decile in rural areas, for a modest Rs. 100 monthly increase in per capita spending on protein rich items by those households. The average (5th decile) urban household, by contrast, spends as much as seven times more than the bottom rural decile on protein-rich foods, and could achieve the same increase with a much more modest increase in incomes.

Fast-growing urban consumers benefiting, for example, from the government's sixth pay commission pay hikes in 2008-9 and even larger private-sector salary hikes after a spectacular urban growth spurt during 2004-8, are a far more likely source of rising demand.

Consider milk consumption. Monthly per capita liquid milk consumption in urban areas (from National Sample Survey [NSS] data) is far higher (5.4 litres) than in rural (4 litres); milk products (powder, solids, paneer, cheese, others)

consumption is overwhelmingly urban and fastest growing (over 12 per cent per annum)-- a pattern seen worldwide--whereas much of rural consumption is in own use, non-market forms that only affect market prices from a distance.

### What are measures taken in this year to contain Inflation in 2011-12?

**Fiscal Measures**

- Reduced import duties to zero for rice, wheat, onion, pulses, edible oils (crude) and to 7.5 per cent for refined and hydrogenated oils and vegetable oils.
- Permitted National Dairy Development Board (NDDB) to import 50,000 tonnes of skimmed milk powder and whole milk powder and 15,000 MT of butter, butter oil, and anhydrous milk fat at zero duty under tariff rate quota.
- Permitted the State Trading Corporation of India (STC)/Minerals and Metals Trading Corporation (MMTC)/Project Equipment Corporation (PEC) and National Agricultural Cooperative Marketing Federation of India (NAFED) to import duty-free white/refined sugar initially with a cap of 1 million tonnes. Later duty-free import was also allowed by other central / state government agencies and private trade without any cap on quantity.

**Administrative Measures**

- Removed levy obligation in respect of all imported raw sugar and white/refined sugar.
- Banned export of edible oils (except coconut oil and forest-based oil) and pulses (except Kabuli chana and organic pulses up to a maximum of 10,000 tonnes per annum).
- Imposed ban on export of non-basmati rice and wheat for short period of time.
- Permitted export of edible oils in branded consumer packs of up to 5 kg subject to a limit of 10,000 tonnes.
- Prohibited export of milk powders (including skimmed milk powder, whole milk powder, dairy whitener, and infant milk food), casein and casein products.
- Effected no change in tariff rate values of edible oils.
- Ban on export of onion was imposed for short period of time whenever required. Exports of onion were calibrated through the mechanism of minimum export prices (MEP) of onion.
- Maintained the central issue price (CIP) for rice (at ₹ 5.65 per kg for below poverty line [BPL] and ₹ 3 per kg for Antyodaya Anna Yopjana [AAY]) and wheat (at ₹ 4.15 per kg for BPL and ₹ 2 per kg for AAY) since 2002
- Suspension of futures trading in rice, urad, and tur.
- Ten lakh tonnes of wheat and 10 lakh tonnes of rice allotted under the Open Market Sale Scheme (OMSS) and 15 lakh tonnes of wheat for bulk sale, including sale to small traders for the period October 2011to September 2012.
- An additional ad hoc allocation of 50 lakh tonnes of foodgrains made on 16 May 2011 to all states/UTs for BPL families at BPL issue price for distribution during the current year up to March, 2012.
- In addition, ad hoc allocation of 50 lakh tonnes of foodgrains made on 30 June 2011 to above poverty line (APL) families raising thereby monthly APL allocation up to 15 kg per family per month in 20 states and 35 kg per family per month in 4 north-eastern states, Sikkim, and 2 hilly states of Himachal Pradesh and Uttarakhand where it was less than that quantity for a period of ten months from June 2011 to March 2012.
- Extended the Scheme for distribution of subsidized imported edible oils through state governments/UTs with subsidy of ₹ 15 per kg for distribution to ration card holders at 1 litre per ration card per month.

**Monetary Measures**

- As part of the monetary policy review stance, the RBI has taken suitable steps with 13 consecutive increases in policy rates and related measures to moderate demand to levels consistent with the capacity of the economy to maintain its growth without provoking price rise. As per the most recent announcement of the RBI on 24 January 2011, the cash reserve ratio (CRR) has been cut by 50 basis points (bps) from 6 per cent to 5.50 per cent and repo rate and reverse repo rate have remained unchanged at 8.5 per cent and 7.5 per cent respectively.

### New Consumer Price Index

The Central Statistics Office (CSO) of the Ministry of Statistics & Programme Implementation announced that the new series of Consumer Price Index(CPI) numbers for Rural, Urban and Combined (Rural +Urban) on base 2010 ( January to December)=100 taking all segments of rural and urban population for the month of January, 2011 has been released by the Central Statistics Office for the States/UTs and all- India on 18th February, 2011.These indices are available for five major groups namely Food, beverages and tobacco; Fuel and light; Housing; Clothing, bedding and footwear, and Miscellaneous.

**Why new CPI?**

The erstwhile CPI numbers did not encompass all the segments of the population in the country and as such they do not reflect the true picture of the price behaviour in the country. It was therefore necessary to compile a CPI which takes into account the consumption patterns of all segments of the population.

**What is the new series of CPI for urban areas?**

CPI (Urban) numbers are compiled at State/UT as well as at all- India level. Weighting diagrams (consumption patterns) of the CPI (Urban) have been derived from the results of the NSS 61st round of Consumer Expenditure Survey (2004-05).

For regular price collection, 310 towns have been selected, which include all State/UT capitals. From each selected town, price data are collected in respect of items consumed by the population of the respective State/UT. In all, 1114 price schedules containing an average of 250 items are canvassed every month. House rent data are also collected from a fixed set of rented dwellings from the selected towns. Prices of items are collected by the field officials of the National Sample Survey Office (NSSO).

**What is the new series of CPI for rural areas?**

CPI (Rural) numbers are compiled at state/UT and all- India levels. Weighting diagrams of the CPI (Rural) have also been derived from the results of the NSS 61st round of Consumer Expenditure Survey (2004-05)

With a view to have a workload within manageable limits and considering the fact that the CPI (Rural) would provide the price changes for the entire rural population of the country, a total of 1181 villages have been selected at all India level. The broad criterion of selection of villages is to have representation of all the districts within State/UT and two villages from each district have been selected randomly from different tehsils. However, to provide adequate representation of the total rural population in some States/UT, allocated number of villages to the states has been increased or decreased on the basis of population of the concerned State/UT. Regular prices are collected by the officials of the Department of Posts. One schedule containing an average of 225 items from each selected village is canvassed for collection of prices every month.

**What is the National CPI?**

CSO has also compiled national CPI by merging CPI (Rural) and CPI (Urban) with appropriate weights, as derived from NSS 61st round of Consumer Expenditure Survey (2004-05) data.

**What are the Weighting diagrams?**

- The share (weight) of the Food, beverages and tobacco group in the all India CPI (Rural) is 59.31% and it is 37.15% in the all India CPI (Urban).
- Fuel and light group has a weight of 10.42% in CPI (Rural) and 8.40% in CPI (Urban).
- Clothing, bedding and footwear group has weight of 5.36% in CPI (Rural) and the weightage of 3.91% in CPI (Urban).
- Housing group has not been given any weightage in the rural areas CPI as its share is around 1% and it has been distributed to other groups on pro rata basis. CPI (Urban) has a weightage of 22.53% in respect of Housing group.
- The Miscellaneous Group consisting of education, medical care, transport and communication etc has 24.91% weight in the all India CPI (Rural) and the corresponding weight in the all India CPI (Urban) is 28%. All India weights of new series of CPI numbers at sub-group and group levels are given in Annex.

**Release of indices**

Index numbers for both rural and urban areas and also combined for the month of January, 2011 were released on 18th February, 2011. It is proposed to release provisional indices for a period of one year. Indices for States/UT will be released only if adequate number of schedules is received at the time of compilation of index. These provisional numbers will be subsequently revised and final numbers with complete data for all-India and also for all the States/UTs would be released with a time lag of two months. It is expected that data reporting will be considerably improved and there may not be any need to bring out separate provisional numbers after December, 2011. Indices for January, 2012 onwards along with annual inflation rates are released with a time lag of one month.

**What are implications of the new CPI?**

Better data makes for better policy. That's why the government's new index to measure inflation that pinches consumers is a welcome move. The new index replaces the three earlier consumer price indices (CPI), which measured the impact of rising prices on agricultural, rural and industrial workers. It also brings in elements like housing, medical, education and recreational costs into the index, so that the changes in prices of all these can also be incorporated in the inflation index. This is also a good move because it takes into account the services, which are now over 60% of the economy and it would have been a pity if price movements in this vast sector were ignored in the data. So far, Indian policymakers used to focus on the wholesale price index (WPI), which measured producers' price inflation but couldn't capture retail price changes.

- The composite index, which includes rural, urban and one all-India component, will be the benchmark indicator of which way prices are headed and how it affects people.
- Politicians, researchers and policymakers will now have a better and more comprehensive handle on inflation and what forces are driving it.