Inflation

BCA

General impression

- Inflation is everywhere and is interestingly touchy issue in macroeconomics. All daily newspaper cover the news about inflation. It is mostly discussed issue all over the world among policy makers and academia.
- Inflation has been the major concern for the government since it has serious implication for the living of common people. Moreover, it affects several macroeconomic variables such as saving, investment, real interest, real wage, real income and level of employment.
- In short, inflation is a burning issue in macroeconomics and main objective and function of central bank is to control inflation.
- **Impact of inflation: Debtors, creditors, wages and salary earners, profit earners, investors, fixed income group, farmers**

Effects of inflation (gainers and losers)

Debtors and creditors (gainers and losers)

Wage and salary earners (wage and salary does not increase in the same proportion as the price rises)

Profit earners (windfall profit, debtors, cost of production)

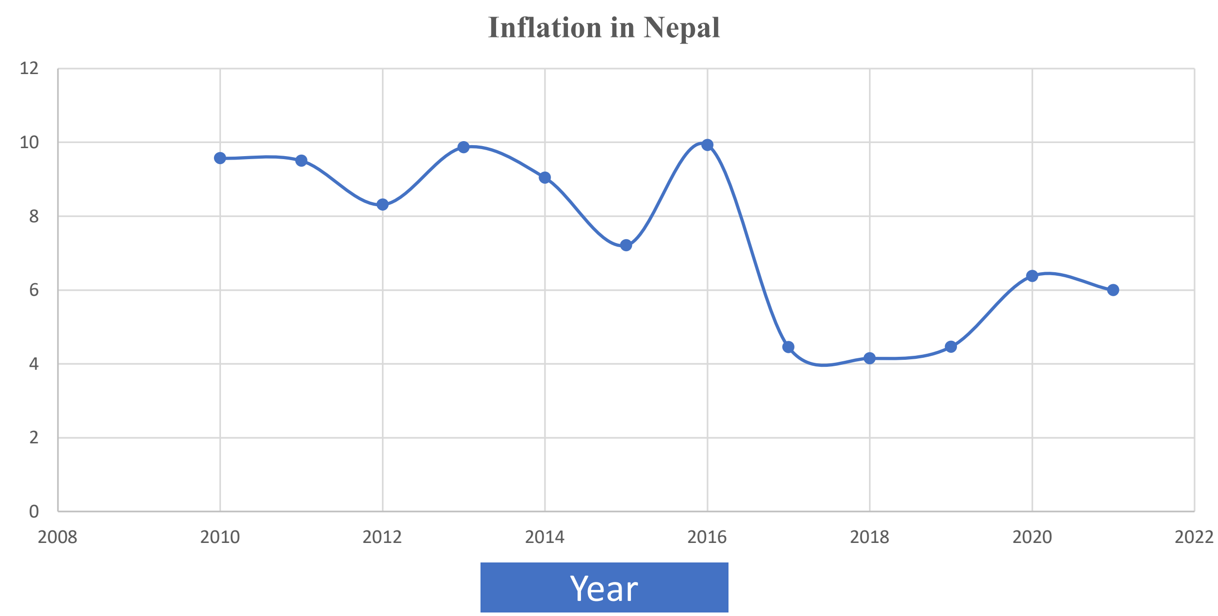
Investors invest in share: gainer invest in debenture:-loser

Fixed income group:- pension, fixed salary, past saving (impact on cost of living)

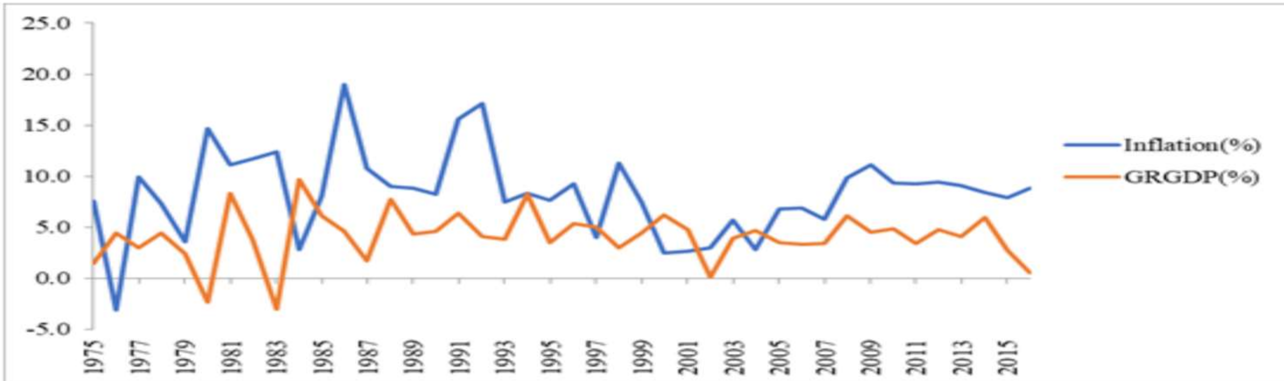
Farmers (price of goods increases, debtors, cost of production remains same)

Inflation in Nepal

Year	Inflation
2010	9.57
2011	9.5
2012	8.31
2013	9.87
2014	9.04
2015	7.21
2016	9.93
2017	4.45
2018	4.15
2019	4.46
2020	6.38
2021	6



Graph



25.0
20.0
15.0
10.0
5.0
0.0
-5.0
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
Inflation(%)
GRGDP(%)

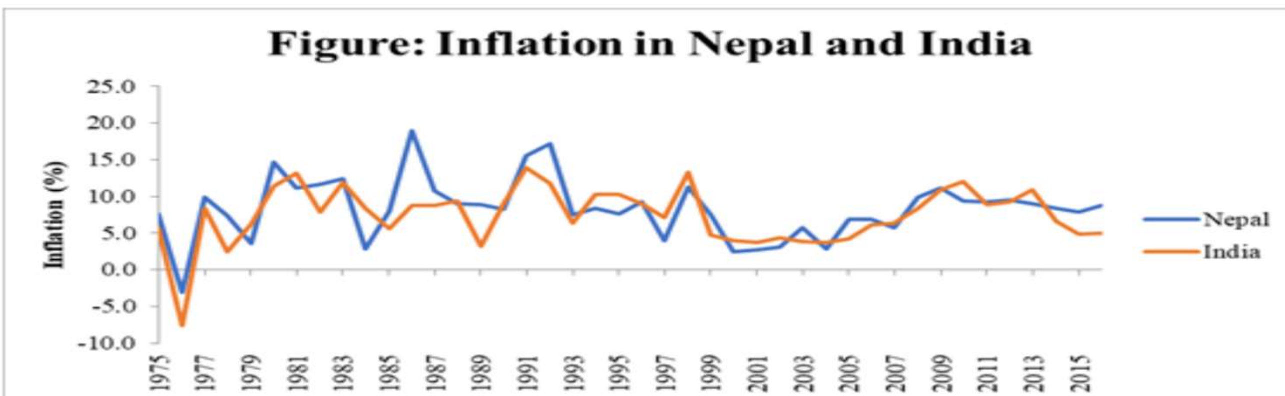


Figure: Inflation in Nepal and India
Inflation (%)
25.0
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
Nepal
India

Concept of Inflation

- In general, inflation means a substantial and rapid increase in the general price level which causes decline in the purchasing power of the money.
- Inflation is measured in terms of percentage increase in the price index per unit of time. However, every increase in price cannot be inflation. To be an inflation, there must be a substantial and rapid increase in general price level, which leads to decline purchasing power of money.
- In the economy, the general price level is determined by the interaction of aggregate demand and aggregate supply. The equilibrium level of price where aggregate demand is equal to aggregate supply is defined as general price level

Definition

"Inflation is a persistent and appreciable rise in the general level of average prices.

Ackley, 2007

"Inflation is a state in which the value of money is falling, i.e. the prices are rising.

Crowther

"Inflation occurs when the general level of prices and cost is rising".

Paul A. Samuelson

"Inflation is too much money chasing too few goods."

Coulborn

On the Basis of Speed

Creeping Inflation: It is the mildest form of inflation. In this situation, price rises about 2 percent annually or 20 percent per decade.

Walking Inflation: A sustainable increase in price level about 5 percent annually or 50 percent per decade is called walking inflation. It is warning signal to the economy because this inflation would be dangerous if it is out of control.

Running Inflation: Under running inflation, the price level increases at a faster rate. In this situation price rises about 10 percent annually or 100 percent per decade. As the inflation rate crosses two-digit figures, it creates several problems in the economy. J. M. Keynes considers this type of inflation as the true inflation which starts after the full employment level.

Hyper-Inflation or Galloping Inflation: This is the last stage of inflation. Under the galloping inflation the price level rises by 50 percent or more per annum. In this situation price rise every moment at faster rate and there is no upper limit.

Open and Suppressed Inflation

- **Open Inflation:** If the government does not try to control the increase in price level and the market is allowed to function without any government intervention, it is called open inflation. According to Friedman, "Open inflation is that process in which prices are allowed to increase without suppression by government price control policy". The hyper-inflation in Germany after the World War is an example of open inflation.
- **Suppressed Inflation:** If the government makes effort to check the price rise through price control, it is called suppressed inflation.

On the basis of Employment Level

Partial Inflation: Rise in general price level before the full employment stage is known as partial inflation or semi-inflation or bottle neck inflation. The increase in money supply before full employment situation tends to utilize idle resources of the economy and causes the expansion of output and employment. So, it is growth promoting.

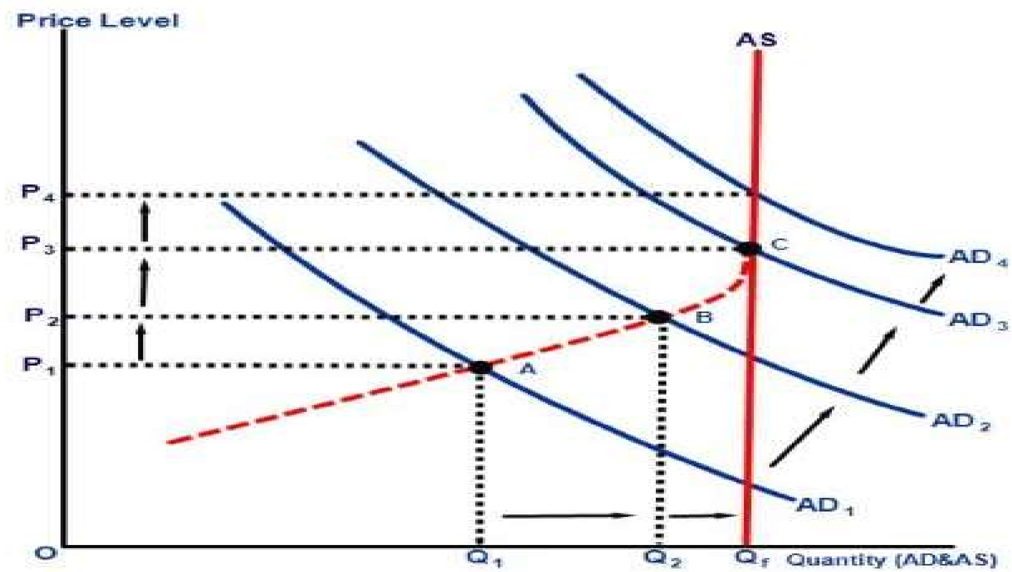
Full Inflation: Rise in general price level after the full employment stage is known as full inflation or pure inflation. Since the resources are fully employed, the increase in money supply after the full employment situation does not increase output and employment but price increases continuously without any obstacles. So, this type of inflation has negative effects in the economy.

On the basis of causes

Demand Pull Inflation: Demand pull inflation is that type of inflation which takes place as a result of excess demand over the limited supply of goods and services. So, it occurs when aggregate demand for goods and services exceeds the supply of these goods and services at the existing price level.

Cost Push Inflation: Cost push inflation is the situation in which general price level increases due to the rise in cost of production. If the cost of production in an economy increases, it affects adversely on supply of the commodity and general price rises.

Figure of demand pull inflation: AS is the aggregate supply curve which is upward slopping up to the full employment level of output then it becomes parallel to Y-axis or vertical. A is the initial equilibrium point where aggregate demand curve (AD_1) intersects aggregate supply curve (AS). So, equilibrium price and output are OP_1 and OQ_1 respectively. When demand for goods and services increases due to the various causes, AD curve shifts upward from AD_1 to AD_2 and intersects AS curve at point B. New equilibrium price is OP_2 and output is OQ_2. This type of inflation is known as semi/partial inflation. If aggregate demand continuously increases to AD_4, from AD_3, price level increases from OP_3 to OP_4 without increasing the level of output. This type of inflation is known as pure/full inflation.



Factors Causing the Demand Pull Inflation

Increase in Money Supply: An increase in the money supply leads to an increase in money income or purchasing capacity of the consumers which in turn increases the aggregate demand for goods and services. If AD increases over limited supply, it causes rise in general price level.

Increase in Government Expenditure: An increase in government expenditure in the form of regular and development expenditure directly increases aggregate demand by increasing the demand for goods and services and indirectly by increasing the factor incomes in the form of wages or salaries of the employees in an economy.

Increases in Private Expenditure: An increase in private expenditure both in consumption and investment, increase the aggregate demand in the economy.

Contd….

Reduction in Tax: Reduction in tax rate leads to increase in disposable income of the people. The increase in disposable income or purchasing capacity of the people raises the demand for goods and services, which in turn increases AD and general price level.

Increase in Export and Decrease in Imports: Increase in export raises the earnings of exporting industries or there will be inflow of foreign currency. This in turn will increase demand for goods and services within the economy. Similarly, reduction in imports also puts inflationary pressure in the reverve direction.

Increase in Population: A rapid growth of population raises the level of aggregate demand in the economy due to the increase in consumption and investment expenditure.

Contd……

Deficit Financing: Deficit financing is used when government revenue is insufficient to meet the government expenditure. To meet the deficit budget, government prints new money which indirectly increases the money supply in an economy and increases the aggregate demand.

Black Money: Black money means the money earned through illegal activities. Generally, such money is spent on unnecessary consumption which creates unnecessary demand. Hence, aggregate demand increases and general price level also increases.

Cost Push Inflation

Cost push inflation refers to the inflation that takes place as a result of increase in cost of production. When the cost of production increases, firm cannot maximize profit by producing the same amount of goods and services. Since aggregate supply decreases; remaining the aggregate demand same, general price rises and output and employment decrease which is termed as cost push inflation.

In general, cost push inflation may take the form of wage push inflation, profit push inflation, material push inflation. The trade union may put pressure to increase the existing wage.

Such increase in wage rate increases the cost of production and general price level in an economy which is referred as wage push inflation.

Contd….

On the other hand, producers may increase profit margin which increases the price and leads to the profit push inflation. Similarly, inflation may occur due to the other non-economic factors such as crop failure, weak law and order situation, political instability etc.

Factors Causing Cost Push Inflation

Increase in Wage Rate: Existence of strong trade unions exercises their monopoly power and force firms, or employers to increase wage above the competitive level. The increase in wage rate without increase in labor productivity causes an equal increase in the cost of production and leads to decrease in supply. Remaining the aggregate demand constant, fall in aggregate supply causes increase in general price level. This type of inflation is also called wage-push inflation.

Increase in Profit Margin: When monopolistic and oligopoly firms use their monopoly power to increase profit margin, cost push inflation takes place. This kind of inflation is called profit-push inflation. The normal level of profit is included under the economic cost. If the firms and industries increase the profit margin, the cost of production increases which leads to decrease the aggregate supply and rise in general price level.

Contd…

Increase in Interest Rate: The increased interest rate will increase the cost of capital. Since the producer has to pay more interest rate for the borrowed fund, cost of production of the output also increases. Which in turn decreases the aggregate supply and general price will increase.

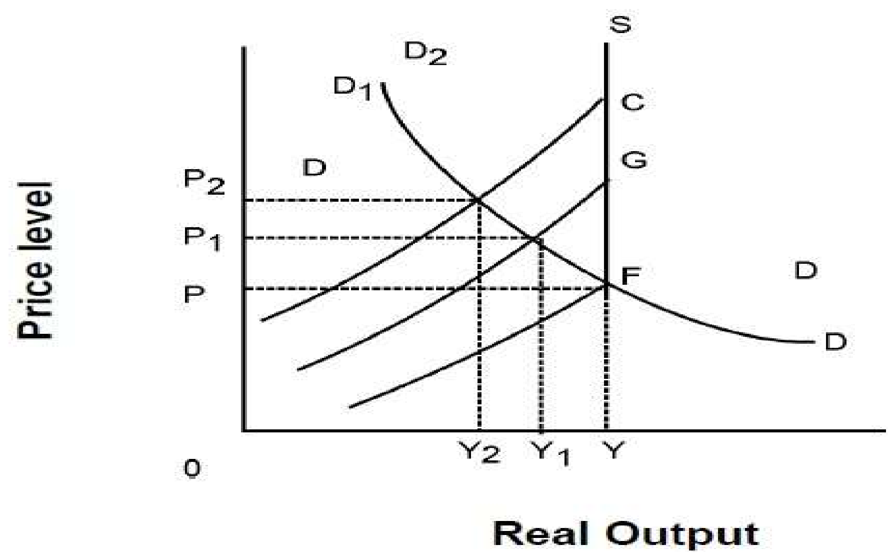
Supply Shock: Supply shock is a sudden and unexpected decrease in the supply of major commodities of inputs of industries. Many factors such as crop failures, natural calamities, power shortage, political instability, strikes, insecurity and shortage of raw materials cause the decrease in aggregate supply and lead to an inflationary situation. This type of inflation is also called supply shock inflation.

Contd…..

Increase in Indirect Tax and Removal of Subsidies: Increase in indirect tax which is charged on commodities like VAT, excise duty, custom duty etc causes the increase in price of goods and services. Similarly, the removal of subsidies leads to pay the full price of inputs. The rise in price of inputs causes the increase in cost of production which in turn decreases in aggregate supply and increases in general price level.

International Reasons: In this 21st century, each and every country of the world has some business or economic relationship with other countries. The rise in price of raw materials or basic goods (i.e. petrol, diesel) in international market increases the price of product in other countries as well.

Figure of cost-push inflation : S represents the aggregate supply curve which is upward sloping up to the full employment level of output then it becomes vertical. Initially, aggregate demand curve (AD) intersects aggregate supply curve at point F, determining the price level OP at full employment output OY. When the cost of production in an economy increases due to various reasons, aggregate supply curve shifts from AS_1 to As_2. It intersects the aggregate demand curve at point F_1. The price level rises from OP to OP_1 and output decrease from OY to OY_1. Employment is also decreased after falling the national output.



Some issues regarding inflation

Which type of inflation are we facing in everyday life; demand pull or cost push inflation?

What is inflationary gap?

What are the effects or impacts of inflation in different sectors of the economy?

Mixed Inflation

- In the actual world, it is difficult to say whether inflation occurs due to demand pull factors or cost push factors. In fact, inflation is the outcome of combination of demand pull and cost push factors. Both factors operate simultaneously and independently in an inflationary process. It is termed as mixed inflation.
- But it does not mean that both demand pull and cost push inflation starts simultaneously. In fact, an inflationary process may begin due to demand pull or cost push. The timing in each case may be different. The demand-pull inflation generates the forces of cost push inflation. If the aggregate demand increases with given output, the prices will rise.

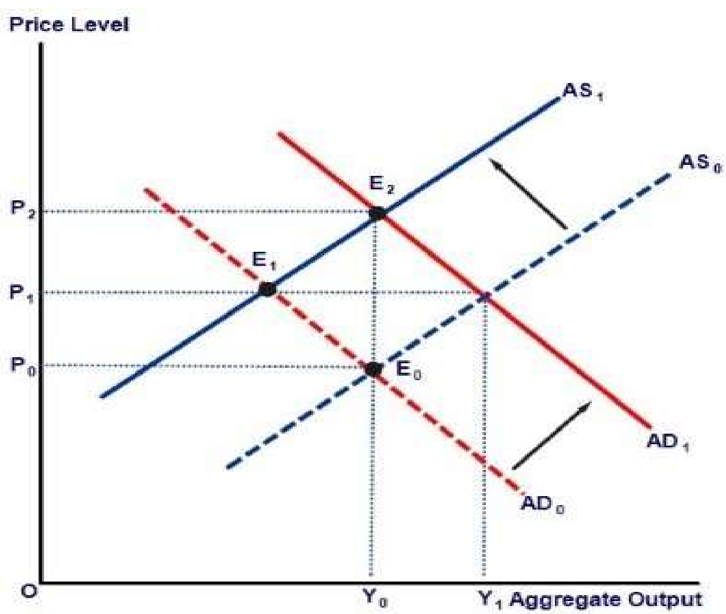
Wage push inflation invites the demand pull inflation

When wage increases.. Cost of production increases.. Price level increases… national output decreases… arises economic recession…. For removing economic recession govt. exp. and money supply increases….due to this AD shifts rightward…. due to this again price increases

Demand pull inflation invites supply push inflation

When aggregate demand increases by government expenditure private investment and money supply …AD shifts towards right-side….price level increases… cost of living increases…. So labor union forces to increase wage rate.. So supply shifts leftward……. again price increases…. but output decreases

In this figure, $AD_0$and AS_0 are the initial aggregate demand and supply curves respectively. They are intersected each other at E_0, indicating output OY_0 and initial equilibrium price OP_0. Suppose, there is increase in money supply in an economy, it increases income and aggregate demand and shifts the AD curve from AD_0 to AD_1. It intersects the AS_0 curve at point E_2. The price level and output increase from OP_1 to OP_2 and OY_1 to OY_2 respectively, which is termed as demand pull inflation.



The increase in price level from OP_0 to OP_1 leads to decrease in purchasing or real income of the workers. So, the trade unions force to increase the wages for workers. This will raise the cost of production in an economy. As a result, AS_1 curve shifts in the form of AS_1 and intersects AD_1 curve at point E_2 showing the reduction in employment and output from OY_1 to OY_0 and rise in price level from OP_1 to OP_2. The increase in price level from OP_0 to OP_2 is the combined effect of demand pull and cost factors which is known as mixed inflation.

Inflationary Gap

The concept of inflationary gap was introduced by Prof. Keynes in his article "How to Pay for the War", published in London Times in 1940. According to him, inflationary gap is a situation in which excess aggregate demand exits at the full employment level of income. It is nothing but demand-pull inflation. It means if there is increase in investment and government expenditure, the money income increases but production does not increase because of the limitation of productive capacity.

Demand Side		Supply Side	
Total money income of the people	1000	Gross national product at pre-inflation price	1000
Minus government tax (5%)	50	Minus war expenditure	300
Total disposable income	950	GNP available for public consumption	700
Minus 10% saving	95		
Net disposable income	855		
Hence, inflationary gap= 855-700= Rs. 155 Million			

Figure

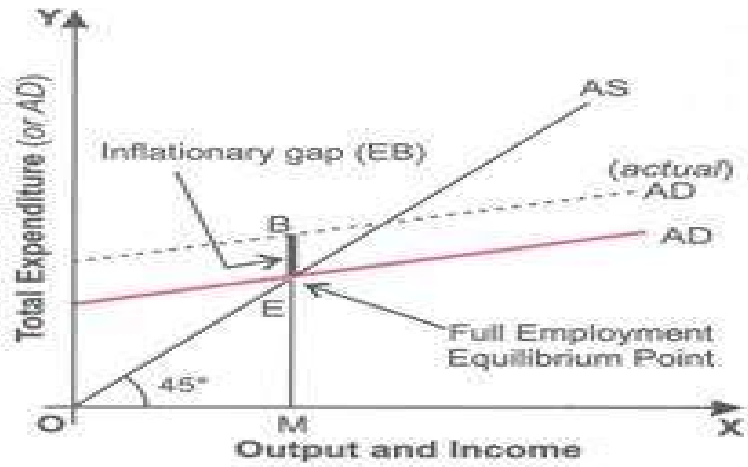


Fig 8.16

Effects of Inflation

1. Effects on Production and Employment

According to Keynes, moderate or creeping inflation has favorable effect on production and employment. When there are unemployed resources in an economy, an increase in price more than the cost of production increases the profit margin of the producers. This provides more incentive to increase investment as a result, output and employment increases. On the other hand, running and hyperinflation creates business uncertainty which is adverse effect to the production. The adverse effects of inflation on production and employment are:-

- ❖ **Reduce Saving:** Inflation adversely effects on saving and capital accumulation. When price increases, the purchasing power of money will fall. *It means more money is required to buy the same quantity of goods.* This reduces saving and production is affected.

Contd..

- **Reduces Volume of Production:** Since, inflation reduces the saving or capital accumulation, it increases business uncertainty and discourages producers from taking business risks in production.
- **Decrease in Quality Goods:** Inflation creates a situation of sellers' market in which sellers have command on prices due to the excess demand. So, any things they produce can be sold in the market. As a result, producers produces low quality goods and sell in the market to increase their profit margin.
- **Encourage Hoarding:** When price rises, the producers start to store the necessary goods and create artificial scarcity. After that the available supply of commodities becomes less in relation to increasing demand. This results black marketing and causes further price increasing.
- **Discourage Foreign Capital:** Inflation not only reduces domestic savings; it also discourages the inflow of foreign capital into the country. *If the value of money falls, foreign investors can return their investment due to the loss of faith.*

Contd….

❖ **Affects in Pattern of Production:** During inflation, profit margin of the producer increases sharply. Those rich people whose income increases rapidly demand more luxuries goods and the investment in production of luxuries goods becomes more profitable which in turn affects the pattern of production by diverting the resources from the production of essential goods to luxuries goods.

2. Effects on Distribution Inflation results unequal distribution of income and wealth because the prices of all factors of production do not increase in the same proportion. During inflation, a class of a society may gain while another class may loss. *An advantage taking by one group of a society might be the cost of the other group of the same society.* Generally, the flexible income groups such as businessman, merchants, traders may gain due to the wind fall profits arises from increase in price faster than cost of production. On the other hand, the fixed income group such as workers, salary earners, teachers, pensioners, interest and rent earners are losers because income does not increase as price rises. The effects of inflation on different groups of society are:

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- **Debtors and Creditors:** During inflation, the debtors are the gainers and creditors are the losers due to the decrease in purchasing power of money. The debtors are gainers because they borrow money when the purchasing power of money is high and return loan when the purchasing power of money is low due to the inflation. On the other hand, creditors are losers because they get back less.
- **Wage and Salary Earners:** wage and salary earners usually suffer during inflation due to the lag between rise in price level and rise in wage or salary. Generally, wage or salary does not increase in the same proportion as the price rises. So, cost of living rises and affects to their life. The workers are losers who are not organized in trade unions than those who are organized.
- **Profit Earners:** The producers, traders, entrepreneurs etc. who earn profit are gainers during the inflation. The producers earn wind fall profit due to the rise in prices faster than their cost of production and due to the increase in the value of stock of commodities and raw materials. Similarly, they are gainers because they are also the borrowers of money for business purpose as well.

Contd….

- **Investors:** Inflation has a mixed effect on investors according to their investment. If the investors invest their money in equities they are gainers because of the increase in dividends due to the rise in corporate profit. Similarly, if the investors invest their money in debentures, bonds and deposits on commercial bank, they tend to loss because interest income remains fixed.
- **Fixed Income Groups:** The retired people who survive on pension, past saving, interest and rent are called fixed income group. During the inflation, general price increases but their income remains fixed. Due to this, the cost of living increases and their life becomes harder.
- **Farmers:** In general, farmers gain during the inflation because prices of farm products increase while the cost of production does not rise so much or in the same proportion. Similarly, the farmers are the debtors as well so they gain as the other debtors.

3. Other Effects of Inflation

Social Effects: Inflation is socially unjust and inequitable. It brings the social impacts through its redistribution effect. In the time of inflation, rich people are gainers whereas poorer are losers. Means, rich people become much richer and poor become much poorer. It divides the society into different groups i.e. rich and poor. It increases class struggle and conflict.

Moral Effects: Inflation leads to increase the cost of living. Since, income does not increase as the cost increase; people become unable to fulfill their basic necessities even from hard labor. So, inflation deteriorates moral values and norms in the society and the feeling of immorality, corruption increases in the mind of people. They become ready to do anything to survive their life. It also affects business morality and ethics as well. Thus, inflation increases black marketing, hoarding of the commodity, theft, robbery, prostitution, and so on.

Political Effects: Inflation also affects the political environment of a society. It deteriorates values and norms of democracy. People will be dissatisfied with the government.

Control of Inflation

From above discussion, we can conclude that inflation is harmful for the country because it badly affects the lives of its people. Therefore, inflation should be checked in time. There are different measures to control inflation which are explained as follows:

Monetary Policy

Monetary policy refers to the policy of central monetary authority to control over the money supply. Monetarists argue that inflation is any time and everywhere a monetary phenomenon. It arises due to the excess money supply in an economy. To control the inflation, contractionary monetary policy aims to decrease money supply by the help of different measures. The various measures to control inflation are:

A. Higher Cash Reserve Ratio: Commercial banks are required to maintain a certain portion of their deposit in the form of cash reserves. A portion of this reserve is kept 'cash in hand' to meet their day to day payment and a portion is kept with the central bank as CRR which is determined by central bank. When the central bank increases CRR, it reduces the credit expansion capacity of the commercial banks. As a result, flow of money from bank to public decreases. It helps to reduce aggregate demand and control inflation.

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B. Higher Bank Rate: It is the rate at which banks and financial institutions borrow fund from the central bank. When the central bank increases bank rate, it increases the cost of borrowing and reduces borrowing from the central bank. It increases the market rate of interest. As a result, flow of money from the banks to public reduces and controls inflation.

C. Open Market Operation: Open market operation refers to the sale and purchase of government securities and debts by the central bank. To control inflation, central bank sells government securities (bond) to the public in the open market. When people use their bank deposits to purchase government bond, it reduces the deposits of banks for landing. This causes a reduction in credit creation capacity of the bank and controls money supply and hence inflation.

D. Over Valuation of Currency: In order to control domestic inflation, a country over values its exchange rate. When currency is overvalued the volume of export falls and volume of import increases. So, the available quantity of money to demand goods and services decreases and helps to control the inflation.

Fiscal Policy

Fiscal policy refers to the government policy to control over the government expenditure, taxation and borrowings. Contractionary fiscal policy is the effective tool to check the inflation. Contractionary fiscal policy decreases government expenditure, increases direct tax rate and reduces the size of public borrowing. The major anti-inflationary fiscal measures are:

Increases in Tax Rate: Income tax, Property tax, Corporate income tax, VAT

Decrease in Government Expenditure: unproductive expenditure

Public Borrowing: Domestic public borrowing

Other measures

Expansion of Output: mobilizing resources from luxurious goods production sector to necessary or essential goods

Proper Wage Policy: According to the productivity of labor

Price Control and Rationing: The government should directly control prices from going above the maximum limit. Similarly, government may fix quota in the purchase and sell of some commodities so that people get only a limited quantity of the goods. It is called rationing. Rationing is essential when consumer goods are relatively scarce. It helps to make availability of essential goods and to prevent price rise.

Measurement of Inflation

Consumer price index (CPI) measures changes in the price level of consumer goods and services purchased by the households. CPI index is a way of finding the cost of living. It is computed based on prices for the market basket of necessities housing, food and beverages, transportation, entertainment, education, medical care, and other goods and services.

Step 1. find the basket of goods and services.

One basket of 2 ltr. Milk and 3 biscuit

Step 2. find the price of milk and biscuit

Year	price of milk	price of biscuit
2017	1	2
2018	2	3
2019	3	4

Contd…

3. Compute the cost of basket

2017 = 1*2 + 2*3 = 8 per basket

2018 = 2*2 + 3*3 = 13 per basket

2019 = 3*2 + 4*3 = 18 per basket

4. Choose one year as the base year (2017) and compute CPI

CPI of 2017 = 8/8 *100 = 100

CPI of 2018 = 13/8 *100 = 162.5

CPI of 2019 = 18/8 *100 = 225

Step 5: Calculation of rate of inflation

Inflation rate in 2018: 62.5

Inflation rate in 2019: 38.46

GDP Deflator

The GDP Deflator measures the current level of prices relative to the level of prices in the base year. GDP Deflator is the ratio of Nominal (Current price) GDP and Real (Base Year Price) GDP.

Process

Step 1: suppose an economy produces only two goods milk and biscuit

Price and quantity

Year	Price of milk	Quantity of milk in ltr.	Price of Biscuit	Quantity of biscuit
2017	1	100	2	50
2018	2	150	3	100
2019	3	200	4	150

Contd…

Step 2. Calculate Nominal GDP

2017: 1 * 100 + 2*50 = 200

2018: 2 *150 + 3*100 = 300+300 = 600

2019: 3*200 + 4*150 = 600 + 600 = 1200

Step 3: Calculate Real GDP

2017: 1 * 100 + 2 * 50 = 100 +100 = 200

2018: 1 *150 + 2 * 100 = 150 + 200 = 350

2019: 1* 200 + 2 * 150 = 200 + 300 = 500

Step 4: Calculate GDP deflator

GDP Deflator in 2017: 100

GDP Deflator in 2018: 171

GDP Deflator in 2019: 240

Contd….

Step 5: Use GDP Deflator to calculate rate of inflation

Inflation:

2018: 71%

2019: 40.35

Simple Aggregate Method:

This is the simplest method of constructing index numbers. According to this method index number can be formulated dividing the sum of price for the current year by the sum of price of base year.

$$P_{o1} = \frac{\Sigma P_1}{\Sigma P_0} \times 100$$

Where,

P_{01} = index number

ΣP_1 = sum of price of current year

ΣP_0 = sum of price of base year

Contd…

Commodity	Base Year (2010)	Current Year 2019	$R = \frac{P_1}{P_0} \times 100$
A	20	25	125
B	30	30	100
C	10	15	150
D	25	35	140
E	40	45	112.5
F	50	55	110
	$\Sigma P_0 = 175$	$\Sigma P_1 = 205$	$\Sigma R = 737.5$

Contd…

The price index by simple aggregative method is given by

$$P_{o1} = \frac{\sum P_1}{\sum P_0} \times 100$$

$$= \frac{205}{175} \times 100$$

$$=117.143$$

$$\text{Rate of Inflation (P)} = \frac{\text{PINt}-\text{PINt}-1}{\text{PINt}-1} \times 100$$

$$= \frac{117.143-100}{100} \times 100 \quad \text{[PIN for base year is always 100]}$$

$$= 17.143$$

This implies that price of goods and services raises by 17.143 percent in 2019 as compared to 2010.

Weighted Index Number:

Different weights are given to different items according to their relative importance. Quantity are used as weights. Many formulae have been developed to formulate index number which are as follows.

I. Laspeyre's Formula (P01) = $\frac{\sum P_1 Q_0}{\sum P_0 Q_0} \times 100$

II. Paasche's Formula (P01) = $\frac{\sum P_1 Q_1}{\sum P_0 Q_1} \times 100$

III.Fisher's Ideal Idex Number $P_{01} = \sqrt{\frac{\Sigma p_1 q_0}{\Sigma p_0 q_0} \times \frac{\Sigma p_1 q_1}{\Sigma p_0 q_1}} \times 100$

Calculation of Laspeyere, Paasche and Fisher Index Number

Commo-dity	P_0	Q_0	P_1	Q_1	P_0Q_0	P_1Q_0	P_0Q_1	P_1Q_1
A	2	40	6	50	80	240	100	300
B	4	50	8	40	200	400	160	320
C	6	20	9	30	120	180	180	270
D	8	10	6	20	80	60	160	120
E	10	10	5	20	100	50	200	100
					ΣP_0Q_0=580	ΣP_1Q_0=930	ΣP_0Q_1=800	P_1Q_1=1110

Contd…..

1. Laspeyre's price index number is given by

Laspeyre's Formula (P01) = $\frac{\sum P_1 Q_0}{\sum P_0 Q_0} \times 100$

$$= \frac{930}{580} \times 100$$

$$= 160.34$$

2. The Paasche's price index number is given by

Paasche's Formula (P01) = $\frac{\sum P_1 Q_1}{\sum P_0 Q_1} \times 100$

$$= \frac{1110}{800} \times 100$$

$$=138.75$$

Contd…

3. The Fisher's ideal index number is given by

Fisher's Ideal Idex Number $P_{01} = \sqrt{\frac{\Sigma p_1 q_0}{\Sigma p_0 q_0} \times \frac{\Sigma p_1 q_1}{\Sigma p_0 q_1}} \times 100$

Contd…..

Weighted Average of Relatives Method: In this method also, different weights are used for the different items according to their relative importance. The following formula is used to calculate price index number:

$$P_{01} = \frac{\Sigma RW}{\Sigma W}$$

Where, $R = \frac{\sum P_1}{\sum P_0} \times 100$

W = Weight

Contd…..

Commodity	W	P_0	P_1	$R = \frac{P_1}{P_0} \times 100$	RW
Food	45	250	360	144	6480
Clothing	20	125	210	168	3360
Rent	10	75	80	106.67	1066.7
Fuel	15	55	20	36.36	545.4
Misc.	10	25	50	200	2000
	$\Sigma W = 100$				$\Sigma RW = 13452.1$

Weighted Average price index number

$$P_{01} = \frac{\Sigma RW}{\Sigma W}$$

$$= \frac{13452.1}{100}$$

$$= 134.521$$

Questions:

Wage push inflation invites the demand pull inflation. Explain

Explain the effects of inflation.