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TERM 3

WEEK ENDING 7/08/20

TOPIC: INFLATION

Inflation is the continuous and significant increase in the general price level of goods and services over a given period.

Measurement of Inflation

- (a) CPI (Consumer Price Index)
- (b) Relative method (weighting basis)
- (c) Month on Month comparison
- (d) Annual Average in Annual Average
- (e) PPI.

Types and characteristics of Inflation

(1) Consumer Inflation:

It is the change in price measured by the CPI

- (a) Headline Inflation
- (b) Core Inflation
- (c) CPIX - Inflation
- (d) Administered prices

Consumer Inflation Discussion

- (i) - It is measured by CPI
- (ii) - It pertains to the cost of living of people
- (iii) - It relates to a basket that consists of consumer goods

and services

- (iv) - Capital and intermediate goods are excluded.
- (v) Prices include VAT
- (vi) Interest rates are taken into account.
- (vii) Prices of imported goods are not shown.

Class Activity 2014 CBE study written and marked in class. And 2015 case study (homework)

② Producer Price Index (PPI) / Producer Inflation

- (i) - It is measured by the PPI
- (ii) - It is used to measure the changes of prices of domestically produced goods at factory floor.
- (iii) - It shows domestic output
- (iv) Refers to cost of production
- (v) Basket consists of goods only.
- (vi) Capital and intermediate goods are included.
- (vii) Prices exclude VAT.
- (viii) Interest rates are excluded.
- ix Prices of imported goods are shown explicitly.

③ ALL-Inclusive Inflation

It relates to what happens to prices of all final goods and services produced in a particular year.

- Implicitly GDP Deflator is a method that is used to calculate all-inclusive inflation and gives an inflation rate for the economy as a whole.
- GDP figures at constant and current prices are used as published in the national accounts.

GDP at constant prices measures economic growth and measures inflation.

Implicit GDP deflator is the ratio of GDP at current/nominal prices to GDP at constant prices (real).

To determine Inflation $\div \frac{\text{GDP deflator for present year} \times 100}{\text{GDP deflator for previous year}}$

It gives inflation rate for the economy as a whole.

NS Inflation can be caused by Political unrest, Economic turmoil/crisis, labour unrest; Natural disaster eg Covid 19, flood, drought, or international sanctions.

These factors can cause the prices of inputs to go up or lead to a shortage, hence finally leading to price increases.

(4) Hyper-Inflation

- It is very high rate of inflation that is more than 50% levels.
- Prices rise so rapidly that people lose confidence in the value of money. In Zimbabwe in 2008 inflation was 4000%.
- It becomes difficult for the economy to operate.
- People will be forced to resort to barter as a medium of exchange.

5 Stagflation

It is a situation whereby there will be low economic growth rate, high unemployment and high inflation rate.

It experienced during the great depression

Its characteristics are, high unemployment, high inflation and low economic growth rate.

CASE STUDY 2016 & 2018 CASE STUDY.

- 6 Deflation: It is decrease of price over a prolonged period of time.
- 7 CPIX Inflation: It is the inflation rate that excludes interest rates on mortgage bonds;
This inflation is less than the CPI, for it includes interest on mortgage bond.
CPI is also the inflation rate that is used for inflation targeting of the SARB.

Comparison of Inflation rate:

CPI, PPI and GDP deflator are used.

$$(a) \text{ GDP deflator} = \frac{\text{GDP deflator for next year}}{\text{GDP deflator for previous year}} \times \frac{100}{1}$$

$$(b) \text{ CPI} = \frac{\text{CPI}_1 - \text{CPI}_0}{\text{CPI}_0} \times \frac{100}{1}$$

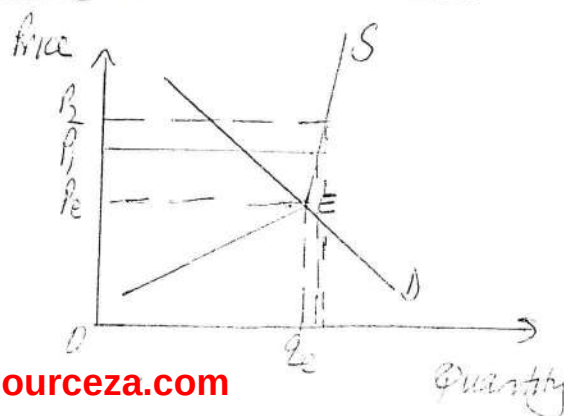
$$(c) \text{ PPI} = \frac{\text{PPI}_1 - \text{PPI}_0}{\text{PPI}_0} \times \frac{100}{1}$$

Ans Interest rate is the main instrument used by SARB to fight inflation.

Causes of Demand Pull Inflation (Consumer Inflation).

- It is inflation caused when $AD > AS$
- It results when too much money is chasing too few goods.

Ans In the diagram given when prices are above P_E an increase in



AD will result in an increase in prices because almost all the resources available will be fully employed.

Therefore any demand, will not be followed by an increase in production.

Main Causes of Demand Pull Inflation (Characteristics).

1. Increase in disposable income (Y_d) / consumption

- (a) It can be due to an increase in income (i.e. income increases faster than aggregate supply); leading to an increase in price.
- (b) It can be due to less savings; hence people will demand more leading an increase in price.
- (c) It can be due to a decrease in taxes (i.e. for example personal taxes (PAYE)), which leaves workers with more income. They will demand more, leading to an increase in price.

2. Investment Spending

- (a) lower interest rate would lead to an improvement in the profit expectations by businesses. Therefore they would demand more leading to price increases.
- (b) Increased business investment leads to increased aggregate demand for capital goods e.g. cement, bricks which leads to increase in prices.

(3) Government Spending

- (a) When there is increased government spending without corresponding increase in Aggregate Supply leads to increase in prices.
- (b) Increased government spending through borrowings from banks will crowd out private investors, hence production will decrease leading to $AD > AS$ leading to price increases.
- (c) Government spends more on infrastructure, consumer goods and social spending, which lead to increase in aggregate demand and hence increase in prices.

(4) Export Earnings

- (a) Foreign growth creates demand for local goods
- (b) Export earnings increase money supply in the country which increases Aggregate Demand.
- (c) If exports increase, with no increase in domestic production, few goods are available, which leads to a shortage thereby followed by an increase in price.

(5) Commodities Demand

- (a) If aggregate demand is greater than aggregate supply, there will be a shortage which will cause prices to increase.
- (b) When foreign demand increases that would lead to an increase in prices given a shortage.

(6) Increase in Economic Active Population (EAP)

- (a) If there is an increase in employed people, then aggregate demand would increase leading to an increase in prices.

(7) Access to Credit

- (a) When interest rates decrease then the cost of borrowing decreases, people would access more cash, hence aggregate demand increases leading to an increase in prices.

Causes of Cost Push Inflation

It is the inflation that would result due to an increase in the cost of inputs used in the production process/producing goods.

Its causes:

- (a) Increase in Wages: When Trade unions force

employees to increase wages of employees, that would lead an increase in the price of the goods.

This would lead to wage spiral inflation.

(2) Cost of key imported inputs eg oil.

When the price of key imported inputs increase, then the price of domestic produced products would increase.

Reason $\Rightarrow$ Cost of domestic production increases.

eg. In the price of Capital goods $\rightarrow P_M \rightarrow P$.

(3) Exchange rate depreciation.

The rand would loose value. Then the imported goods become more expensive leading to an increase in price.

(4) Increase in profit margins motive.

When firms expect high profit margin, then the price of the goods would increase, leading to inflation.

(5) Decrease in production due to costly factors of production.

It will lead to an increase in prices, hence inflation or poor health.

(6) Natural disasters eg drought, floods, Covid-19 and Wind.

All these would affect production negatively leading to shortages and prices would increase resulting in inflation.

(7) Causes vicious circle: higher wages would lead to higher ~~prices~~ cost of living, then higher prices (inflation).

(8) Strikes and stay away.

Due to these, production would decrease and there would be a shortage which would lead to inflation (price increases).

(9) Increase in direct and indirect taxes for the producers.

Therefore, the cost of production would increase and producers would reduce production leading to a shortage and prices

would increase.

(10) Administered goods prices.

If their prices increase, then that would lead to inflation.
(eg) Increase in price of fuel and electricity.

(11) Shoplifting and losses due to employees.

If the losses are estimated, it can be put on the price of goods, hence that would lead to an increase in price.

(12) High prices of agricultural goods due to high costs of inputs
eg increase in the price of diesel and fertilisers - would lead to increase in prices.

(13) High interest rates.

It is a cost to businessmen. Therefore, if they borrow at a higher price, they would in turn sell at a higher price, since the cost of production would have increased.

(14) Sudden supply shocks eg. Sudden increase in the price of oil would lead to an increase in the cost of production - which will lead to an increase in prices.

is Expectation: will lead to price increases.

(15) An increase in factor costs, such as the cost of labour would lead to spiral price increases.

How monetary policy can reduce inflation.

1) - Increase repo rate, there that would reduce credit by banks and aggregate demand would decrease, hence prices would decrease.

(2) Banks would also increase interest rate, hence borrowing would decrease and aggregate demand

would decrease leading to a decrease in prices.

- (3) Borrow savings: eg by increasing interest rate, hence demand would decrease and in turn prices would go down. (Personal Savings).
- (4) Decrease money supply by using open market operation (OMO).
Government may sell bonds and would decrease money in circulation, hence demand would decrease and finally price will decrease.
- (5) Increase cash reserve ratios/requirements.
This would reduce the amount of money available for lending, hence reducing demand and in turn prices will decrease.
- (6) Apply moral suasion/persuasion. Banks need to be careful in giving out credit.
- (7) Wage policy: Stop wages from increasing (keep the increase within the level of inflation).
- (8) Stricter conditions for consumer credit (make it harder to get credit. (conditions become hard to get credit and collateral becomes higher).
- (9) Import controls are relaxed.
It will increase inflow of goods and services, then we may have more goods available locally. Then if we were at full employment locally, then we would have more goods now available.
- (10) Floating exchange rate: Adjust prices to international conditions.
Devalue the rand, thereby reducing importation.
- (11) Indexation:
It's a policy of linking prices of items such as wages, pensions and mortgage bond interest rates to price indices to eliminate the effects of inflation.

H Short the solutions are given as ["WIPC SCIP"] where

w = wage

I = Import

P = Productivity

E = Exchange rate

S = Savings

C = Credit

I = Indexation

P = Price Control

How to Reduce Inflation using Fiscal Policy.

(1) The Inflation targeting.

The monetary policy committee (MPC) which is headed by the Governor of the SARB is responsible in Inflation targeting where Inflation rate ranges from 3% to 6% to be acceptable.

(2) Fiscal measures:

(a) Increase Direct tax (Pay as You Earn and Corporate tax)

If its increased, then disposable income will decrease, hence Aggregate demand would decrease leading to a decrease in ~~the~~ Price.

(b) Increase VAT : Then demand would decrease and also Prices.

(c) Put incentives for saving, hence demand would decrease and then price would decrease.

(d) Cut back on Government expenditure :

Government may reduce the amount of money in the hands of the people (eg the pay) $\Rightarrow \downarrow AD \rightarrow \downarrow P$.

(e) Government must reduce getting loans from banks, Reduce excessive borrowing in order to reduce demand and Price as well.

- (f) The government must impose such charges on imported goods eg tariffs. This will increase the price of imported goods, hence reduce their demand, leading to decrease in Aggregate demand and then price.
- (g) Reduce incentives and subsidies.

The Consequences of Inflation

- (1) It impacts negatively on economic growth (Lower productivity).
- (2) It negatively affects the distribution of income and wealth. People with fixed income earn less, the pensioners. Their income will easily be eroded its purchasing power (Purchasing power of money).
- (3) It benefits debtors (borrowers) and less creditors (Lenders) who get it with less purchasing power.
- (4) It leads to decrease in the real money value of savings.
- (5) It brings social and political unrest.
- (6) It feeds upon itself and bring about more inflation.
- (7) It benefits more entrepreneur and disadvantages consumers.
- (8) It negatively affects the BOP (As imports increase when using the devalued currency).
- (9) High inflation is harmful to the workings of the free enterprise system.  As price increases, AD will also increase given that the economy is at full employment (Q_f).
- (10) It leads to disruption of industrial peace as workers strike for wage increases.
- (11) Workers would have more debts.
- (12) Weakens job creation. (Unemployment increases).
- (13) High Production Costs.

Measurement of Inflation in SA (Pos via Africa)(a) Consumer Price Index (CPI) [As compiled by Stats SA or SARS.]

- It measures the changes in average prices of consumer goods and services.
 - It considers the prices of a shopping basket of goods and services that are bought by a typical South African household.
- It is calculated by $\Rightarrow \pi = \frac{P_1 - P_0}{P_0} \times 100\%$

(a) You select the basket of goods and services

- (b) Assign different weightings to each good or service to indicate its relative importance.
- (c) Calculate a base year.
- (d) Collect prices in each month.

(2) Relative Method (Weightings basis). Assign weighting to items selected.

- This method assigns weighting to each item selected in order to reflect its relative importance in the index.
- For example, food can be weighted 14,27 and under food we may have meat weighted 4,59 and fish 0,66.
- Then it means meat has a greater influence on price change than the price of fish.
- In this case the change in meat price has a greater effect on inflation.

Month on month comparison

- It is calculated by comparing the index of a particular month with the index of a corresponding month during the previous year.

The result is expressed as a percentage increase ($\% \uparrow$)

eg Inflation rate = $\frac{119,4 - 112,6}{112,6} \times 100\%$

6%

CPI Index		
Month	2010	2011
OCT	112,6	119,4

Annual Inflation or Annual Inflation

- It is calculated by first calculating the average index in a particular year
eg 2011 (117,3%) with the corresponding average of the previous year
2010 (111,7%)

Therefore, Average Inflation rate = $\frac{117,3 - 111,7}{111,7} \times 100 = 5\%$

