# Notes 2015 – Topic 2C – Inflation

**Types of Inflation**

### Demand-Pull Inflation (Singapore 🡪 ↑AD is due to ↑Xd/↑FDI)

* + - It occurs when there is an increase in the aggregate demand which will contribute to excess demand condition which will lead to the rise in price level under rising cost and full employment condition

### Cost-Push Inflation

* + - It occurs when there is a rise in cost of production which will lead a fall in the aggregate supply that will lead to an excess demand condition, contributing to increase in price level. When the cycle becomes cyclical, it will develop as wage-price spiral or price-wage spiral.

### Structural Rigidities

* + - It refers to the condition of immobility of economic resources due to the inflexibility structural establishments that will lead to rising cost condition as here is a rise in unit cost of resources.

### Asset-Based Inflation (Speculation and Profiteering)

* + - It occurs when there is rising prices of assets which will lead to rising cost of condition in term of mortgage loan that will rise of the cost of rental and thus, contributing to cost push inflation
    - Inflow of hot money due to Quantitative Easing  
       by US government will induce an inflow of hot money that will raise the local money supply, contributing to fall in interest rate. This will lead to rise in demand for property and asset-based inflation will occur.

### Imported Inflation

* + - The rise in global price of certain essential goods or global boom will cause the price of imports to rise which will lead to a rise in cost of living and cost of production, contributing to cost-push inflation. For example, rise in the price of oil.

🞹For the various types of inflation like imported inflation, structural rigidities, asset-based inflation, tax-based inflation, the diagram to be used is the same as cost-push inflation.

## Diagrammatical Illustration and Description of the Different Causes of Inflation

### Demand-Pull Inflation

This occurred as a result of the rise in aggregate demand, leading to an excess demand condition and a rise in price level, only when the economy is experiencing rising cost condition or full employment condition.

Y2=Y3=YF

Real GDP

GPL

AS0

AD3

AD2

AD1

AD0

Y1

Y0

P2

P3

P1=P0

As seen from the diagram, the rise in AD from AD₀ to AD₃ will lead to inflation (rise in price level) when the economy is experiencing rising cost condition from Y₁ to Y₂ or it is at full employment at Y₂=Yf

Rise in AD is mainly contributed by excessive ↑ in Xd/FDI or rise in local consumption and government expenditure

### Cost-Push Inflation

Caused by a rise in cost of production, which can be due to an increase in unit labour cost or an increase in cost of raw materials. The increase in cost of production will lead to a reduction aggregate supply, contributing to a shortage or excess demand condition leading to increase in price level.

AS₀

GPL

Real GDP

P₁

P₀

Y₁

Y0=YF

AD₀

AS₀

AS1

As seen from the diagram, the rise in cost of production will lead to a fall in aggregate supply from AS0 to AS1 which will create an excess demand condition at P0 which will prompt the rise in price from P0 to P1

The rise in cost of production due to rise in wages or cost of resources (all other reasons that affect COP will lead to rise in COP like imported inflation) will cause a leftward shift of the AS from AS₀ to AS₁, which means that there is an excess demand condition at P₀ and thus inducing rise in price level from P₀ to P₁. While the real GDP falls from Y₀ to Y₁ (no change in potential capacity – YF remains the same)

## Internal Impacts of Inflation

### Impact on Investment, Production and Employment (Beneficial effects of mild inflation)

* + - Inflation stimulates investment, raising production and national income when inflation rate is low as it induces growth of profitability
    - As production cost lags behind product prices, producers can pass on the rising cost condition to the consumers, enabling to gain greater revenue and profitability
    - Higher price level will raise revenue under-price-inelastic demand condition and when increase in total revenue is higher than the increase in cost of production, profitability will rise and entrepreneurs are more willing to invest because of their expectations of higher profit margins.
    - However, uncertainty may lead to a fall in investment as hyperinflation will disrupt the derivation of cost of production, making it difficult to set price which discourage trading activities and determine cost of investment which undermines investment. (hyper-inflation sets in)

### Unequal Re-distribution of Income

* + - With inflation, the real value of wealth and purchasing power will be distorted, creating unequal distribution of income and wealth
    - When there is inflation, fixed income earners can only purchase fewer goods and services than before, real income falls.
    - Businessmen or entrepreneurs stands to gain from inflation because production costs usually lag behind product prices; reason being that wage and raw materials are usually fixed by agreement which take time to revise.
    - Debtors gain as inflation leads to a fall in the value of money, and therefore the real value of their debts fall. Creditors receive less in real terms of what they would otherwise receive the settlement of the debt if there is no inflation.
    - Appreciation of assets will raise the wealth of higher Y group while the rise in price of resources will lower the real income of the poor
    - Inflation will also discourage willingness to save as future value of money is lower and undermine the ability to save as purchasing power has decreased

### Reduction in Level of Saving (ability and willingness to save)

* + - People will be discouraged from saving, as wealth in other less liquid forms (e.g. real asset, stocks) would be preferred.
    - Individuals are unwilling to save as the future value of money is lower and therefore they rather increase the consumption now and save less. Their ability to save will be compromised too when inflation occurs since their purchasing power is lowered and to maintain the current level of standard of living, individuals will increase their expenditure on consumption and save less. The reduction in saving will lead to the reduction in the source of fund for investment.

### Increase Cost of Living and Lower Standard of Living

* + - Persistent increase in prices will lead to an increase in the cost of living. If the income of a family is unchanged, then its living standard will be lowered. (real per capita income decreases)

### Undermine the Main Function of Money

* + - Erode the main functions of money due to inflation as their confidence in the currency is eroded. Money cannot serve as a medium of exchange, an unit of account, standard of deferred payment as people feel the value of money cannot be sustained, undermining the purchasing of the consumer

### Misallocation of Resources

* + - Inflation distort the production and corruption activities leading to inefficient allocation of resources due to speculative activities
    - As the industries will plough in areas of production which experiences inflation, allowing the firms to reap higher revenue. Consequently, there will be excess increases in production in these industries.
    - This will lead to excess supply production condition, the occurrence of misallocation of resources when the demand falls.

### Increase in Cost of Adjustment to Adapt to Inflation

* + - Increase in the cost of resource allocation as cost of adjustment to inflation, as there is a need to adjust production and competitive activities. In a period of inflation where prices are continually rising, sellers of goods and services have to constantly review, change and update price catalogues.
    - The opportunity cost of resources used to protect against inflation and the distortions will rise as firms attempt to plan for the long run. Misallocation of resources will occur as speculative activities discourage investors to plough investment in non-production based industries.

## External Impacts of Inflation

### Loss of International Competitiveness

* + - Loss in the **international competitive edge** as inflation will raise the cost of production and an increase in the price of the goods. This will cause an increase in the price of exports and a relative fall in the price imports. The rising export price will decrease demand for exports, undermining the country’s competitive edge.

🡪inflation🡪↓Xd/↓FDI (↑Px and cost of FDI↑)

* This will affect Singapore extensively as Singapore relies extensively on external demand for growth of the economy

### Balance of Trade and Payment of Deficit

* + - Exports demand decreases and import demand increases due to more expensive domestic substitutes, may lead to a BOT deficit, without government intervention, will lead to fall in foreign exchange rate, or the external value of money.

Px↑,Pm↓ relatively

🡪↓Xd

🡪BOT deficit (since inflow < outflow) 🡪 exchange rate depreciation - affects investors’ confidence in saving and investing in Singapore

### Depreciation of Exchange Rate

* + - Decrease in demand for currency due to lower export demand and increase in supply of local currency due to greater import demand will contribute to a fall in the exchange rate. Falling exchange rate will cause capital outflow undermining the financial stability of the economy.

**Is inflation in Singapore contributed by external factors rather than internal factors?**

a) Why external factors are more influential?

* land space is limited
* lack of natural resources

high reliance on import dd – price taker in the international MARKET SOLUTIONs- subjected by the price set by the seller

1. diverse source of supply
2. diverse form of substitution for energy usage
3. appreciation of S$

b) Why internal factors are less influential?

size and value of component is small as the economy is small

**Reasons for government to keep inflation rate low / Why is low inflation more important than other aims?**

**Internal aspect**

Low inflation helps to **prevent** unequal distribution of income

(Price of goods for resources is lowered which will sustain the purchasing power of the lower income group while the price of assets will not rise excessively to raise the wealth of the rich – income and wealth disparity will not widen – social dissatisfaction will be minimised – social stability is promoted)

It also prevents rise in cost of living and cost of production.

It also maintains purchasing power and ability to save.

It will induce investment, production and employment.

prevent misallocation of resources

**External aspect**

**It helps to maintain international competitiveness due to cost competitiveness**

It helps to prevent the occurrence of balance of trade deficit.

It helps to prevent fluctuation of exchange rate (depreciation).

Questions for discussion

1. Why inflation is a great concern to countries like India and China?

2. Why some countries cannot solve inflation through the use of contractionary monetary policy?

3. How SG applies the exchange-rate monetary policy?

4. Is exchange-rate monetary policy still relevant to Singapore is solving inflation for Singapore?