



# **GDP vs GNI**

## **MACROECONOMICS**

# Gross Domestic Product [GDP]

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- The total monetary value of final output produced within the geographical boundary of the country, regardless of the ownership of factors of production, over one year before adjustment for depreciation.

# Gross Domestic Product [GDP]

Nominal GDP	Real GDP
<ul style="list-style-type: none"><li>- Also known as 'money' GDP.</li><li>- When nominal NY increases, it can be due to an increase in prices, quantities or both.</li><li>- Nominal GDP does <b>NOT</b> account for <b><u>inflation</u></b> [<i>rise in general price levels</i>]</li></ul>	<ul style="list-style-type: none"><li>- Used as economists are interested in examining whether an economy is growing by producing more output overtime.</li><li>- When real NY increases, it is <b><u>ONLY</u></b> due to a change in quantity.</li><li>- Real GDP is adjusted for th effects of <b><u>inflation</u></b>, and reflect economic growth.</li></ul>

# Gross National Income [GNI]

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- Refers to GDP + factor incomes earned by residents overseas - factor incomes earned by non-residents in the domestic economy.
  - *Factor Incomes include wages, interest profits and rent earned.*

*GNI is a better reflection of SOL of the nationals*

# DIFFICULTIES in measuring National Income

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- 1. Obtaining correct and unreliable information** → incomplete information (*esp. in LDCs due to lack of technology*)
- 2. Non-marketed items** → Unpaid services, self-consumed output, voluntary services are not included in NY.
- 3. The underground economy** → Not reduced for tax purpose, tuition, other underground goods not taxed.

# Gross National Income [GNI]

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- Refers to GDP + factor incomes earned by residents overseas - factor incomes earned by non-residents in the domestic economy.
  - *Factor Incomes include wages, interest profits and rent earned.*

*GNI is a better reflection of SOL of the nationals*

# Overall comparison

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- GDP takes into account factor ownership, regardless, while real GNI just focuses on total market value of goods and services produced by LOCAL resources (more accurate measure of the domestic economy).
- Hence, use GNI for measuring of SOL [*next video*].



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# Standard of Living

## MACROECONOMICS

# Definition of SOL

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- Standard of Living (SOL) refers to the level of economic and social well-being, or the average quality of life of a population which includes **material** and **non-material** aspects of life.

**Material aspects:** Quantity and Quality of g/s available for consumption.

**Non-material aspects:** Environment which one lives (no. of working hours, leisure time, quality of physical envt, etc.)

# Indicators to measure SOL

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1. Real GNI per capita [*Material aspects*]
2. Human Development Index [*Non-Material aspects*]
3. Gini Coefficient [*Non-Material aspects*]

## Real GNI per capita [Material and NM aspects]

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- A rise in real GNI means that the economy is expanding.

$$\text{Real GNI per capita} = \text{Real GNI} / \text{Total Population}$$

- Use Real GNI and not GDP because GDP takes into account factor ownership, while real GNI just focuses on total market value of g/s produced by local resources hence is more accurate.

## Real GNI per capita [Material and NM aspects]

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- Rise in GNI → Shows that more g/s are produced → Higher demand for labour → Assuming prices remain constant, this would lead to higher wage rates → Increase consumers ability to purchase more g/s → Increase **material SOL**.
- Rise in GNI → Firms receive higher level of profit and workers receive higher wage rates → Increase in personal income tax and corporate tax → Government can collect more tax revenue → Spend more on public and merit goods → Increase **non-material SOL**.

# Real GNI per capita [Material and NM aspects]

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## Limitations to using National Income statistics to measure SOL:

1. Real GNI **does not reflect the change in income distribution** between 2 time periods → SOL may not improve if income distribution worsened [*means richer minority see increase in income while majority experience little increase/no in income*].
2. Change in **quality and composition of products** → Technological changes and increased trade improve the quality and availability of g/s overtime.
3. **Negative Externalities** unaccounted for → Affects the quality of life, whereby an increase in real GNI during a period could show increase in production which comes at a cost of increased pollution, etc. → non-material SOL may fall even if non-material SOL.

# Human Development Index [Material and NM aspects]

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- Better to compare living standards between countries.
- Comprises of life expectancy, index for school enrolment, Real GNI per capita.
- Accounts for both material SOL and non-material SOL.
- HDI value closest to 1 shows the highest living standard.

## Limitations to HDI:

1. Only looks at one criterion of each aspect of economic, social and demographic aspects → may overlook other aspects of human development such as income distribution, gender inequalities, political participation, etc.



# Gini Coefficient [NM aspects]

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- Reflect income distribution within a country and values can range from 0 to 1.
- Higher the value = Greater the inequality
- Can help nations in the effort to track poverty levels.
- Helps in measuring non-material aspects of SOL.

## Limitations to Gini Coefficient:

1. They could be pre-tax or post-tax incomes → every country may differ hence it can be hard to compare across all countries.

# Exam Requirements

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- Be able to explain the various causes affecting non-material and material aspects of SOL.
- Explain the relevant indicators that can be employed to measure a country's living standards (material and non-material aspects).



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# Economic Growth - Actual and Potential Growth

## **MACROECONOMICS**

# Definition of Economic Growth

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- Economic Growth refers the **INCREASE** in real output as measured by the change in real GDP from one time period to another.
- Measured by Real GDP growth (*increase in Y on the diagram*).

## 4 types:

**Actual Growth:** Short-run economic growth

**Potential Growth:** Long-run economic growth

**Sustainable Growth**

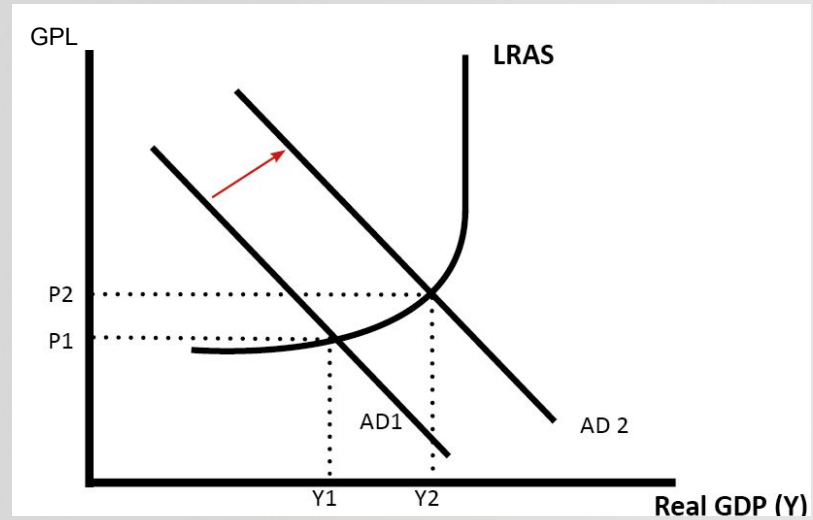
**Inclusive Growth**

# Actual Growth

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- Short-run increases in national output as a result of increased utilisation of present capacity.
- Results in a movement from inside the PPC to a point on the curve.
- Caused by an **increase in AD** [*due to increase C, I, G, X-M*].
  - However, if AD rises beyond a certain output (near/at  $F_n$ ) then it creates inflationary pressure on the economy as all resources are fully utilised.

# Actual Growth





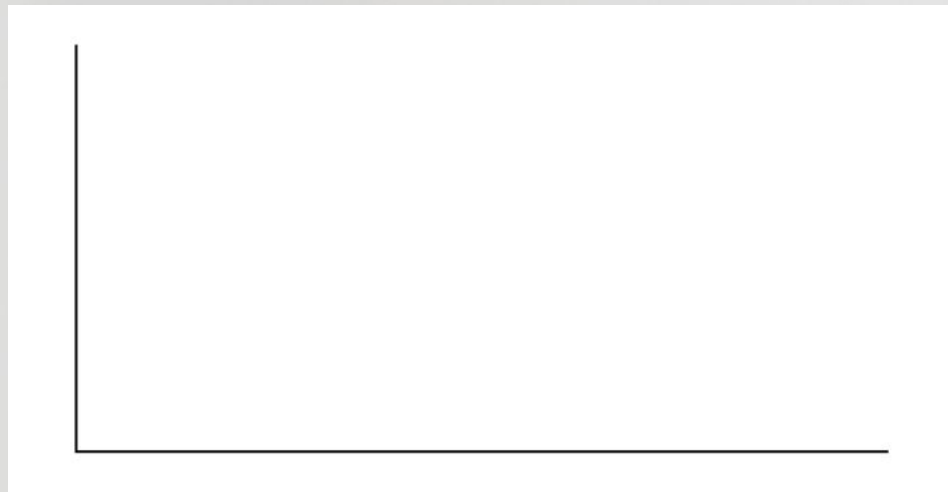
# Potential Growth

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- Rise in an economy's potential output (increase capacity of the economy to produce more  $g/s$ ).
- Known as long-run economic growth.
- Results in the **outward shift** of PPC and rightward, parallel shift of LRAS.
  - This is due to growth in quantity, improvement in quality of FOP and/or improvement in state of technology.
  - Results in an increase in productive capacity.

# Potential Growth

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# Sustainable Growth

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- Indicates a rate of growth that can be maintained without creating other significant economic problems (i.e. depleted resources and environmental problems), especially for future generations.
- Sustained growth can be achieved by a steady increase in AD and LRAS in the long-run.

# Inclusive Growth

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- Indicates a rate of growth that is sustained over a period of time, is broad-based across economic sectors and creates productive employment opportunities for the majority of the country's population.
- Takes into account **income inequality**.

# Exam Requirements

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- Be able to recognise the differences in the different types of economic growth.
- Explain how actual growth and potential growth affect the AD/AS curves.
- Explain the consequences of slow/excessive economic growth [*next part*].



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# Causes & Consequences of undesirable Economic Growth

## **MACROECONOMICS**



# Causes & Consequences of Economic Growth

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- When there is undesirable rates of economic growth, it can result in negative consequences on the economy instead.

## Causes of undesirable rates of economic growth:

- High and rapid rise in rates of growth (coupled with rising inflation)
- Slow and low growth
- Negative growth

## Demand side - Weak AD

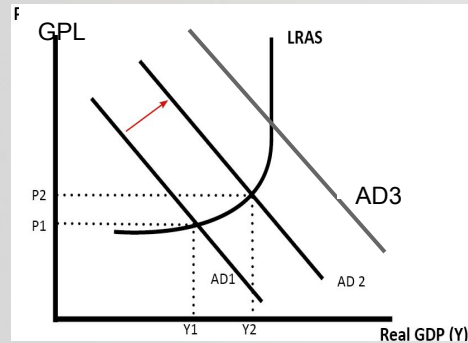
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- Weak AD may arise due to a global recession → Results in a fall in exports due to falling national income of trading partners.
- Weak AD may also arise due to falling in Consumption and Investment expenditure due to low consumer confidence and poor business sentiment.

→ Results in a fall in AD → Multiplier process → NY falls more than proportionately  
→ Economic growth weakens

## Demand side - Excessive AD

- Excessive AD can rise from consumption, investments, exports, etc. → Rapid rise in AD → With constraints in AS → Resources get increasingly scarce as utilisation and competition for resources intensify → Factor prices will increase resulting in demand-pull inflation [covered in another video].



## Supply side - Insufficient resources to sustain growth

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- **Capital stock** is often seen as a major factor affecting economic growth → Larger capital stocks → Higher possible level of productivity and real income → able to produce more g/s → Generate higher NY and greater productive capacity.
- **Quantity and Quality of labour** determined whether there can be sustained growth → Larger size and more skilled labour pool → Higher productive capacity → Increased ability to achieve higher level of output in the long-run.

# Causes & Consequences of Economic Growth

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## Consequences of undesirable rates of economic growth:

- Impact on Consumers
- Impact on Firms
- Impact on Government

\* Take note: Do not ever link **BACK** to 'worsens growth' again. These consequences of undesirable economic growth should not result in more undesirable rates of economic growth!

# Consequences: Consumers

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## 1. Purchasing Power, Consumption and Savings

- Fall in economic growth → Fall in household incomes → Fall in purchasing power → lower ability to consume g/s → Fall in overall consumption + Fall in level of savings.

## 2. Employment and Standard of Living

- Fall in economic growth → Lower level of national output → Less g/s available to satisfy populations' needs → Fall in country's SOL.
- Firms also produce at lower output → Derived demand for labour fall → Raises unemployment.

# Consequences: Consumers

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## 3. Rapid Growth and Cost of Living

- Rapid growth coincides with higher inflation rates → Increase in cost of living as GPL rises alongside.

# Consequences: Producers

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## 1. Investment, Production and Employment

- Negative growth → Means falling price levels → weak demand for output → negative business expectations → fall in investment expenditure → fall in AD → fall in national income → lesser derived demand for labour → increased unemployment



# Consequences: Government

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## 1. Other macroeconomic objectives

- Rapid growth rates coincides with rising inflation rates → As domestic price increases → Exports become relatively more expensive → Foreigners will switch to relatively cheaper goods produced by other countries → fall in X. Moreover, domestic consumers switch to buying more imported goods since it is cheaper due to higher domestic inflation → net exports fall → worsens balance of payments.

Rapid growth rates lead to **higher inflation** and **worsened BOP**, but **lesser unemployment rates**.

# Exam Requirements

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- Be able to explain and discuss the causes of economic growth (rapid, slow, negative) and the consequences each of the different rates of growth can have on consumers, producers and the government.
- Be able to link some of these causes and consequences to the other macroeconomic objectives.



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# **Inflation - Causes**

## **MACROECONOMICS**

# Definition of Inflation

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- Defined as the **SUSTAINED** increase in the General Price Level (GPL) of an economy.
- Measured using *Consumer Price Index (CPI)*
  - Aims to measure the average price of a fixed basket of goods and services.

## **2 main causes:**

- Demand-pull inflation
- Cost-push inflation

# Demand-Pull Inflation

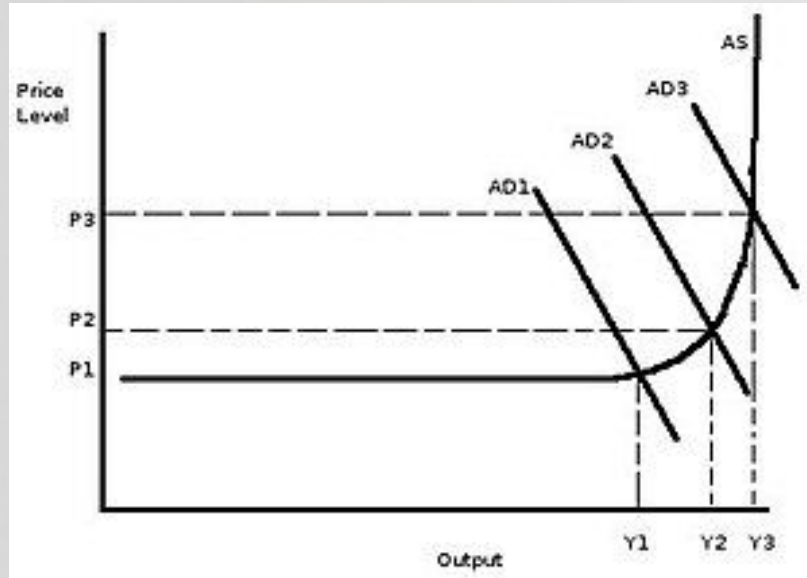
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- Caused by high AD given the constraints of AS.

**Main Assumption:** That the economy is nearing or at full employment.

- With a rise in consumer spending/export earnings → Rise in AD → Assuming that the economy is operating at full employment → Rise in GPL by greater extent and no increase in real NY → Rise in GPL results in demand-pull inflation.

# Demand-Pull Inflation





# Cost-Push Inflation

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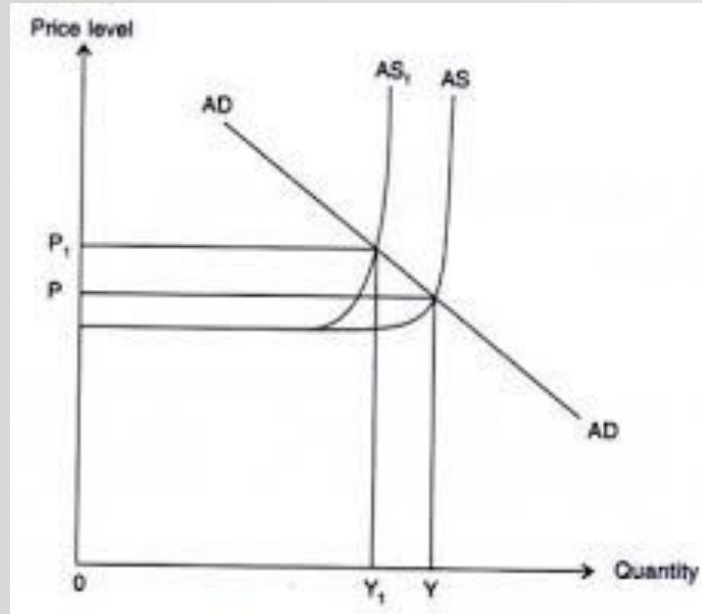
- An increase in cost of production for reasons not associated with AD.
- Increase in Cost of Production → Raises total costs → fall in profits → Firms cut back on production → Fall in AS → Rise in GPL assuming AD remains unchanged → Rise in GPL.

**Main Assumption:** That the change in AS is independent of AD.

**Reasons for cost-push inflation:**

- Rising labour costs → Caused by increase in wages > productivity increase
- Rising cost of imported raw materials → Known as “imported inflation” which can be caused by inflation in other countries or by a fall in domestic exchange rate.

# Cost-Push Inflation



# Inflationary Spiral

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- Refers to a continuous rise in prices that is sustained by the tendency of wage increases and cost increases.
- An initial demand-pull inflation may strengthen the bargaining power of strong trade unions and drive up wage costs (cost-push inflation) → Prices will carry on rising → Results in an **inflationary spiral**.

# Exam Requirements

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- Explain the causes of inflation.
- Be able to recognise the underlying factors that may bring about demand-pull inflation and cost-push inflation, based on context.
- Explain and discuss the consequences of inflation in relation to the causes [*next part*].
- Explain the causes of deflation (opposite from inflation).



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# **Inflation - Consequences**

## **MACROECONOMICS**

# Consumers

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## 1. Purchasing Power, Consumption, Standard of Living

Under **high** inflation rates:

- Fixed Income earners → Real income will fall → Fall in purchasing power and hence standard of living.

Under **low** inflation rates:

- Workers can bargain for higher wages to offset inflation → Maintains purchasing power and possibly increase income to increase living standards.



# Consumers

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## 2. Savings and Redistribution effects

Under **high** inflation rates:

- If the interest rate is less than inflation rate → Results in a negative real interest rate → Savers/Lenders lose out (negative real i/r offsets any interest gained) while borrowers gain.

Under **low** inflation rates:

- If the interest rate is more than inflation rate → Results in a positive real interest rate → Savers/Lenders benefit while borrowers lose out.

# Producers

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## 1. Investment, Production, Employment

Under **high** inflation rates, cost-push inflation:

- Cost-push inflation → Increase in cost, while assuming no change in total revenue and demand → Results in profits → Fall in investments and increase in uncertainty → Lower expected returns → Fall in investments → Fall in output → Increase in unemployment.

Under **low** inflation rates, demand-pull inflation:

- Demand-pull inflation → Higher demand → Higher P, Q → Higher TR → Increase in  $TR > TC$  → Increase in profits → Greater incentive for firms to invest → Higher output → Increased employment, actual and potential growth.

# Governments

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## 1. Consumer & Investor confidence

Under **high** inflation rates, cost-push inflation:

- Fall in confidence levels due to uncertainty + High inflation rates (cost-push inflation) means a rise in COP → Assuming TR remains unchanged → Fall in profits → Fall in investments → fall in productivity → Fall in LRAS → **Negative LR potential growth** if investments fall.

Under **low** inflation rates:

- Rise in confidence and business expectations of firm and consumers as it reduces uncertainty → Increase in investments → Increase **potential growth** (and increase in productivity) due to rise in TR and LRAS.

# Governments

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## 2. Impact on BOP (external impact)

Under **high** inflation rates:

- Higher  $P_x$  than trading competitors → Exports relatively less competitive → Assuming  $PED > 1$ ,  $Q_x$  falls more than proportionately → Fall in X revenue → BOP worsens + foreign M more competitive than domestic goods → Rise in  $DD_m$  → Rise in M expenditure → BOP worsens.

Under **low** inflation rates:

- Stable, lower  $P_x$  than trading competitors → X more competitive → Rise in X → BOP improves + Rise in DD for currency → Stronger exchange rate.

# Exam Requirements

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- Explain and discuss the impacts/consequences of inflation.
- Explain the consequences in relation to the causes of inflation (either demand-pull, cost-push, or both).
- Be able to explain the impacts of deflation (the opposite from inflation).



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# Unemployment- Types/Causes

## MACROECONOMICS



# Definition

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- People who are registered as able, available and willing to work in a suitable job but cannot find paid employment.

# Cyclical Unemployment

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- Occurs when the economy is at a recessionary phase of trade cycle.
- Caused by a fall in AD.
  - E.g. When DD for exports by foreigners fall → fall in production and output by firms → Demand for FOP, including labour falls → Results in demand-deficient/cyclical unemployment.

# Structural Unemployment

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- Mismatch of skills between unemployed and producers.
- Occurs when the economy undergoes structural changes due to changes in demand and technology.
  - Results in certain industries and skills becoming **obsolete**.
- Workers who **do not possess necessary skills** will lose their jobs in obsolete industries and may not have skills required to join sunrise industries.
  
- Highly applicable to older generation (not tech-savvy).

# Frictional Unemployment

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- Unemployment due to job search in the process of transitioning between jobs.
- Time lag due to need for both employees and employers to find the right job or staff.
- Occurs all the time, regardless of state of economy.

# Exam Requirements

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- Understand and explain the various (3 types) of causes of unemployment.
- Link to the consequences of unemployment (in the next part).



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# Unemployment- Consequences

## MACROECONOMICS



# Consumers

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## 1. Purchasing Power, Savings, Consumption, Standard of Living

- Consumer confidence falls → Willingness of people to spend declines → People build up savings and AD falls → Adds to unemployment.
- Unemployed would see a fall/no more income → Reduces purchasing power → Fall in Consumption → Fall in material Standard of Living (SOL).

# Producers

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## 1. Investments and Production

- Affected households affected → Fall in income → Fall in consumption and hence AD → Fall in business confidence → Firms hold back investment plans → AD falls further → Fall in real GDP.
- Fall in productive capacity in the long-run with a fall in production.

# Governments

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## 1. Impact on Macroeconomic objectives

- Unemployment is a waste of scarce resources (not fully utilised) → Loss of potential output for an economy → Worsens scarcity.
- Puts a strain on government finances → Increase in spending on unemployment benefits + falling tax revenues from income tax → At the expense of government expenditure in other areas → Rise in opportunity cost.
- Unemployment → Signals fall in income → Fall in purchasing power of consumers (fall in disposable income) → Fall in consumption of foreign imported goods → Fall in import expenditure → Stronger/Healthier BOP position (if X relatively higher).

# Governments

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## 2. Impacts on other societal issues

- Rising unemployment leads to social deprivation as well.
  - Could lead to increased crime, divorce rates → Affects non-material SOL.
  - Worsens income inequality.
  - Lead to social and political unrest → Destabilise economy and deters foreign investment.

# Exam Requirements

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- Explain and discuss consequences of unemployment.
- Explain the impacts which unemployment may have on other economic goals.



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# Balance of Payments - Components

## MACROECONOMICS



# Definition of Balance of Payments

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- Record of all **economic transactions** between a country and the rest of the world during a given period of time.

## 2 forms:

**Payments** - Expenditure

**Receipts** - Earnings

## Accounting System:

**Credit items** - Items that allow a country to gain foreign earnings → Money

**INFLOW**.

**Debit items** - Items that require foreign exchange payment to foreign countries →

Money **OUTFLOW**.

## 3 Accounts

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1. Current Account
2. Capital Account
3. Financing Account

# Current Account

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- Records imports and exports of currently produced goods/services and unilateral transfers.
- Reflects international competitiveness of economy.

## 2 trade accounts:

1. Visible Trade Account
2. Invisible Trade Account

# Current Account

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## 1. Visible Trade Account

- Measures value of export and import of **GOODS** only.
- Balance of Trade = Value of visible X - Value of visible M
- Value X > Value M : Surplus
- Value M > Value X : Deficit
- Looking simply at the value of exports and imports.

# Current Account

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## 2. Invisible Trade Account

- Records receipts from the provision of services to overseas and locals.
- **3** items in invisible account
  - Services
  - Interest, Profits, Dividends (from investments abroad, wages included)
  - Unilateral Transfers (one way, does not involve any economic transactions)

# Current Account

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Current Account Balance:

Visible Trade Account + Invisible Trade Account + Net transfers

# Capital Account

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- Records inflows and outflows of capital in exchange for assets.

**2 types** of capital flows:

1. Long-Term capital flows
2. Short-Term capital flows

# Capital Account

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## 1. Long-Term capital flows

- Occurs when foreigners purchase or invest in productive resources and assets in the domestic economy.
- This can come in the form of
  - **Portfolio** investments: Purchase or sale of bonds, patents, trademarks (> 1 year)
  - **Direct** investments: Real physical assets, affects productive capacity and AS, such as investments by firms (plants/factories, commercial buildings)



# Capital Account

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## 2. Short-Term capital flows

- Also known as 'Hot' money flows.
- Includes bank deposits, short-term loans, treasury bills.
- Highly volatile on a daily basis.

# Official Financing Account

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- The official financing account is required when BOP is in disequilibrium.
- It is the accumulation or reduction of official reserves.

**BOP Surplus:** There will be an increase in foreign exchange reserves or repayment of loans to IMF (money leaves the country).

**BOP Deficit:** There will be a decrease in foreign exchange reserves or borrowing from IMF to ensure deficit is financed.

# Exam Requirements

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- Understand and explain the various components of a BOP.
- Be able to apply these components of BOP to BOP-related questions where required.



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# Balance of Payments - Causes of a Deficit

## MACROECONOMICS

## Various causes of a BOP deficit

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- Current Account Deficit ( $M > X$ )
- Capital Account Deficit

# Current Account Deficit

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## 1. Due to changes in global demand conditions

- Fall in income of trading partners (e.g. United States) → Results in a **fall** in demand of imports from Singapore → Results in a **fall** in Singapore's **EXPORTS** → Assuming that imports remain unchanged → Current account **worsens**.
- Higher rates of inflation relative to trading partners → Means that price of exports are relatively more expensive → If  $PED_x > 1$  → Total Revenue of exports fall → Current account **worsens**.



# Current Account Deficit

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## 2. Changes in international competitiveness

- Loss of Competitive Advantage → Usually due to a fall in efficiency in the country → Results in a fall in exports → Current Account worsens.
  - *E.g. In developed countries → A swap to capital-goods production means that there is a fall/loss in CA in production of labour-intensive goods → Fall in export earnings.*

# Capital Account Deficit

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## 1. Changes in Exchange Rates

- Expected fall in external value of money → Increase in hot money outflow → Capital account deteriorates.

## 2. Changes in international competitiveness

- Fall in expected returns to investments → Connotes a fall in Foreign Direct Investment (FDI) → Current account deteriorates.

# Capital Account Deficit

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## 3. Changes in global demand conditions

- Falling income globally → Shows global slowdown/recession → Leads to rising pessimism and dampens business confidence → Fall in FDI and hot money flows → Worsened capital account.

# Exam Requirements

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- Explain the causes of a balance of payments (BOP) deficit → Can be caused by a current account deficit or capital account deficit.
- Take note that the the causes of a surplus is the opposite.



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# Balance of Payments - Consequences of a Deficit

## **MACROECONOMICS**

# Consumers

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## 1. Purchasing Power, Savings, Consumption and Living Standards

- Persistent BOP deficit implies consumers are spending more on better quality imports → **Raises their living standards.**
  - However, this may result in the government imposing tariffs on imports to reduce imports → Reduced competition in domestic market → forces prices to rise → if wage price < domestic price → **Fall in purchasing power** → **Fall in material SOL.**



# Producers

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## 1. Investment and Production

- Indicates a lack of competitiveness of domestic firms in both price and quantity.
- Domestic firms market shares and investments will dwindle → Fall in I and possibly lead to shutting down of several firms.
- In the long-run, could lead to foreign dilution of firms and taking over by foreign companies → Loss of domestic firms/industries.

# Government

---

## 1. Consumer & Investor Confidence

- A BOP deficit signals staggering external debts → May cut imports due to a lack of ability to pay off the debts → Greatly reduces consumer and investor confidence → Hurts **long-term growth** and **performance of economy**.

# Government

---

## 2. Impact on macroeconomic objectives

- A BOP deficit indicates a net withdrawal from the country's circular flow of income → As imports > exports → Capital inflow > Capital outflow → Fall in AD → Accompanied by Multiplier effect → Greater **fall in national income (actual growth)** and could result in further **unemployment**.

# Exam Requirements

---

- Explain the consequences of a balance of payments (BOP) deficit, its impact on consumers, producers and governments.
- Take note that the the consequences of a surplus is the opposite.



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# **Fiscal Policy**

## **MACROECONOMICS**

## **Definition**

The use of government expenditure and taxation to influence the level of economic activity.



# Fiscal Policy

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1. Non-Discretionary Fiscal Policy
2. Discretionary Fiscal Policy
  - Expansionary FP
  - Contractionary FP

# Non-Discretionary Fiscal Policy

---

- The use of automatic stabilisers.

**Progressive Tax Structure:** Higher income earners taxed more as compared to lower-income earners.

- E.g. SG Wealth Taxes

**Transfer Payments:** Unemployment benefits.

- During recession → More unN benefits given out → In turn increases tax revenue due to greater consumption.

# Discretionary Fiscal Policy

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Aims to **influence AD** through deliberate changes in government expenditure (**G**) and taxes (**T**) in response to **changes in economic activities**.

# Expansionary Fiscal Policy

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- During recession → Government may **deliberately** increase G or reduce tax rates (Personal Income and Corporate tax rates)

**Consumers**: Greater disposable income to consume → Increase consumption on big-ticket items.

**Investors**: Greater after-tax profits → Increase investments on new capital goods.

- Both increase in C and I or G would **increase AD**.
- **Assuming** that the economy is operating **below** full employment → Increase in real GDP by **multiplied extent** → Greater economic growth.

# Contractionary Fiscal Policy

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- During a period of **high demand-pull inflation** → Government may deliberately cut spending or increase tax rates (Personal Income and Corporate tax rates)

**Consumers:** Lesser disposable income to consume → Fall in consumption on big-ticket items.

**Investors:** Lower after-tax profits → Fall in investments on new capital goods.

- Both fall in C and I or G would cause **AD** to fall.
- Assuming that the economy is operating at full employment → Fall in **GPL** → Lower DD-pull inflation.

# Limitations of Fiscal Policy

---

## 1. Accuracy and Availability

- Presence of imperfect information in reality.

## 2. Size of Multiplier

- Small multiplier → Smaller rise in C and I → Lesser impact.

## 3. Government Budget

- If in a budget deficit → Not enough funds to increase G and reduce T may worsen deficit → FP not feasible.

## 4. Expectation of consumers and investors

- Bleak outlook → Even if taxes fall → Not willing to increase C and I.

# Exam Requirements

---

- Explain and discuss how using fiscal policy will affect an economy in terms of its macroeconomic goals.
- Be able to discuss why fiscal policy is a better policy as compared to other policies in correcting issues in the macro-economy.



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# Monetary Policy - Interest Rates

## MACROECONOMICS

## **Definition**

The use of *interest rates* to stimulate economic activity in different economic situations.

# Monetary Policy - Centred on Interest Rates

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## 2 Types:

- **Expansionary Monetary Policy** centred on Interest Rates
- **Contractionary Monetary Policy** centred on Interest Rates

## **Expansionary Monetary Policy [I/R]**

---

Suppose an economy with a LARGE domestic market is in an economic downturn. The policy to adopt is Expansionary MP where the Government should:

**REDUCE  $i/r$**

*[Tends to be used to boost growth]*

# Expansionary Monetary Policy [I/R]

---

## Consumers

Fall in  $i/r$  → Reduction in Cost of Borrowing → Cheaper to borrow from banks to purchase big-ticket items and a lower opportunity cost to consume →

Increase Consumption → Increase AD → Boost Growth.

# Expansionary Monetary Policy [I/R]

---

## Producers

Fall in  $i/r$  → Given same expected returns to investment and lower COB → Increase Investment as it becomes more profitable → Firms more willing to purchase new capital equipment → Increase Investments → Increase AD → Boost Growth.

## Contractionary Monetary Policy [I/R]

---

Suppose an economy with a LARGE domestic market is in an economic boom. The policy to adopt is Contractionary MP where the Government should:

**INCREASE  $i/r$**

*[Tends to be used to curb inflation]*



# Contractionary Monetary Policy [I/R]

---

## Consumers

Increase in  $i/r$  → Increase in Cost of Borrowing → More expensive to borrow from banks to purchase big-ticket items and a higher opportunity cost to consume → Fall in Consumption → Fall in AD → Assuming economy is at Full Employment → Fall in GPL → Low Inflation.

# Contractionary Monetary Policy [I/R]

---

## Producers

Increase in  $i/r$  → Given same expected returns to investment and higher COB → Decrease Investment as it becomes less profitable → Firms less willing to purchase new capital equipment → Fall in Investments → Fall in AD → Assuming economy is at Full Employment → Fall in GPL → Low Inflation.

# Limitations of I/R Policy

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## 1. Accuracy and Availability

- Government bases decisions on forecasts about future economic conditions  
→ Could be inaccurate.

## 2. Policy Conflicts

- Contractionary MP can be used to deflate economy but may increase unemployment and lead to slower growth.

## 3. Expectation of consumers and investors

- Expansionary MP: Fall in  $i/r$  → C and I may not rise due to low confidence.
- Contractionary MP: Rise in  $i/r$  → If firms feel that returns can more than offset higher COB, I may not rise.

# Exam Requirements

---

- Explain and discuss how an increase or decrease in interest rates will **affect an economy in terms of its macroeconomic goals.**
- Be able to discuss why **interest rate is a better policy** as compared to other policies in correcting issues in the macro-economy.



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# Monetary Policy - Exchange Rates

## MACROECONOMICS

## **Definition**

The use of *exchange rates* to stimulate economic activity in different economic situations.



# Monetary Policy - Centred on Exchange Rates

---

## 2 Types:

- **Expansionary Monetary Policy** centred on Exchange Rates
- **Contractionary Monetary Policy** centred on Exchange Rates

## **Expansionary Monetary Policy [ER]**

---

Suppose an economy is experiencing falling export demand. The policy to adopt is Expansionary MP where the Government should:

**WEAKEN ER**  
**(Depreciation)**

## Expansionary Monetary Policy [ER]

---

**Weakening** of domestic currency (*depreciation*) → Reduces price of exports in foreign currencies → **Assuming that  $PED_x > 1$  and  $PED_m > 1$**  → There will be a more than proportionate increase in  $Q_{dd}$  for exports, and a more than proportionate fall in  $Q_{dd}$  for imports

→ Net value of exports will rise → Rise in AD → Rise in Real GDP

→ **Stronger economic growth and lower unemployment.**

## **Contractionary Monetary Policy [ER]**

---

Suppose an economy needs to reduce demand-pull and cost-push inflation. The policy to adopt is Contractionary MP where the Government should:

**STRENGTHEN ER**  
**(Appreciation)**

## Expansionary Monetary Policy [ER]

**Strengthening** of domestic currency (*appreciation*) → Increases price of exports and reduces price of imports in foreign currencies → **Assuming that  $PED_x > 1$  and  $PED_m > 1$**  → There will be a more than proportionate fall in  $Q_{dd}$  for exports, and a more than proportionate rise in  $Q_{dd}$  for imports

→ Net value of exports will fall → Fall in AD → Assuming that economy is operating at  $F_n$  → GPL falls

→ **Achieve low and stable rate of demand-pull inflation.**

## Expansionary Monetary Policy [ER]

---

→ Additionally, countries **highly reliant on imported raw materials, necessities and finished goods** would see lower imported inflation due to the **fall in price of imports** → Fall in COP → Fall in AS → Fall in GPL → **Lower cost-push inflation.**

# Limitations of Fiscal Policy

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## 1. Expectation of foreign consumers

- Depreciation: Foreigners may reduce expenditure on imports due to uncertainties → Weaker domestic currency may be ineffective in recession → Economic recovery **dependent on economic conditions in foreign economies.**

## 2. Policy Conflicts

- Strong ER may be used to achieve low inflation, but since it causes the price of exports to rise → Reduce X competitiveness → Assuming  $PED_x > 1$  → **Worsens current account and BOP** + Worsened economic growth as well.

# Exam Requirements

---

- Explain and discuss how an appreciation or depreciation in exchange rates will affect an economy in terms of its macroeconomic goals.
- Be able to discuss why exchange rate is a better policy as compared to other policies in correcting issues in the macro-economy.





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# Supply-Side Policies

## MACROECONOMICS

## Definition

Policies implemented by the government to increase **productivity** and increase efficiency in the macroeconomy → Leads to increase in **POTENTIAL GROWTH** (long-run).

## Supply-Side Policies

---

1. Policies to increase quantity of factors of production
2. Policies to improve quality of factors of production
3. Policies to increase efficiency and remove barriers to trade

# 1. Increase QUANTITY of factors of production

---

- Depends on the size of the labour force → Faces fluctuation due to influx of foreigners, migration of locals, etc.

**Policy:** Loosen immigration law (when there is *labour shortage*).

- Increases supply of labour → Drives down wage costs → Fall in costs of production for firms → Downward shift of AS → Increase productive capacity → Increases LR national output → Potential growth achieved.

## 2. Increase QUALITY of factors of production

---

- Building on the skills of the population would be a huge enabling factor in developing a country.

### Policy: Education and Skills Training

- Government can look to increasing spending in these areas, as well as reduce taxes on firms which provide training programmes for workers → Improves skills of workers → Improves productivity → Greater output per worker → Increases LRAS.

## 2. Increase QUALITY of factors of production

---

- Education and training can also **reduce structural unemployment** in the population as workers now possess the skills to be employed.



### 3. Increase efficiency and remove barriers to trade

---

- Such policies are also known as **free-market** policies that aim to increase competitiveness and free market efficiency.

#### Policy 1: Privatisation

- Transfer of ownership of state-owned firms to the private sector → Profit-driven firms → Increased competitiveness, cost-cutting and more efficiency → Increases productivity → Increases AS.

### 3. Increase efficiency and remove barriers to trade

---

#### Policy 2: Deregulation

- Removes government regulations in markets → increases competition and innovation → Firms will develop more cost-efficient methods of production → Reduces COP → Increases AS → Lowers GPL.

#### Policy 3: Promoting Free Trade

- Removal of trade barriers → Greater inflow of foreign imports → Domestic firms face greater competition → Innovate → Greater efficiency and variety for consumers.

### 3. Increase efficiency and remove barriers to trade

---

#### Policy 4: Research and Development

- Investments in research and development → Allows for more innovative and lower-cost methods of production to be found → Increases efficiency and productivity → Boosts potential growth.
- Comes at a initial high cost → May deter some firms from investing in R&D.

# Limitations of Supply-Side Policy

---

## 1. Accuracy and Availability

- Presence of imperfect information can cause policies to be ineffective.

## 2. Policy Conflicts

- Tax cuts may lead to higher inflation rates (DD-pull). Deregulation may cause some firms to streamline processes to reduce COP → Layoff more workers → Increase in unemployment.

## 3. Uncertainty of outcomes

- Skills training and education may be ineffective if workers are not receptive to change.

# Exam Requirements

---

- Explain and discuss how using supply-side policy will affect an economy in terms of its macroeconomic goals.
- Be able to discuss why supply-side policy is a better policy as compared to other policies in correcting issues in the macro-economy.



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