Topic 6 – Inflation and Unemployment

I can use my understanding of the roles of money and credit institutions, sources of finance, interest rates and the RPI/HICP to examine and assess the impact of inflation and to examine policies intended to reduce the level of unemployment.

✓

Part 1 – Introduction to Money and Credit Institutions

Section A – What is money?

Learning Outcomes:

1. Describe the functions of money and/or the characteristics that this medium should have to be used as money.
2. Describe the main forms of money. currency in circulation or cash and/or bank deposits and/or cryptocurrencies
3. Compare and contrast trade using the barter system with trade using money.

A **System of Exchange** is a system where a good becomes the property of someone else.

______________________ is anything that is generally accepted as a means of payment for goods and services. It consists of ____

____

In the absence of money, this system of exchange must take the form of **barter. A barter** is the direct exchange of goods and services for goods and services. For example:

____

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In the quaint Maltese village of Marsaxlokk, Mario, a fisherman, had an abundant catch of lampuki one day. Across the village, Elena crafted the finest Maltese lace.

Spotting a beautiful lace tablecloth, Mario approached Elena. "Would you like to trade some lampuki for this lace?" he asked. Elena hesitated. "I just bought fish this morning, Mario. What I need is some fresh bread." Mario scratched his head. "But I don't bake bread." The next morning, he tried to trade his lampuki for some bread but the baker wanted fresh vegetables, not fish.

Mario realised that in Marsaxlokk, direct barter made exchanges quite complex. He missed the ease of a straightforward sale.

The disadvantages of barter are:

- There is **no standard measure of value** and for each and every transaction, values have to be decided upon. This may take too much time and certain goods may not last that long.

- The act of saving is very difficult and costly since it is goods that will have to be stored. This is a problem because ____
____

- Barter depends upon the double coincidence of wants. This means that if Skyler wants cows and has sheep for sale, she must find Sarah who wants sheep and has cows for sale. Skyler and Sarah may be lucky and find each other quickly as this is not usually the case.

The Functions of Money

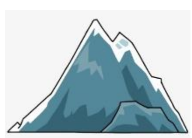
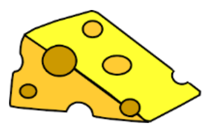
One may define money by its functions, i.e. what it does. Money is what money does. There are four main functions of money:

- Money is a **medium of exchange**
  - Money eliminates the problem of double coincidence of wants as ________
    ____
    ____

- Money is **a measure of value**
  - Money value is accepted as such by people
  - A Five Euro note is accepted at the value of €5.
  - A sheep, for example is not always accepted at the same value.

- Money is a **store of value**
  - Money can be stored without losing its value.
  - This function, though, may disappear if its value starts decreasing because prices in general increase at high rates (inflation).
- Money is a **means of credit**
  - The promise of money is probably the only thing that people would be ready to accept when allowing you to pay later on.
  - Suppliers would be most unlikely to accept promises to pay based on commodities such as wheat or sheep.

Why are the following not good examples of money?


<u>The Characteristics of 'Good Money'</u>

The main characteristic is that of acceptability. However, there are four other characteristics which help to make money more acceptable. Thus:

1. Acceptability
2. Durability
3. Divisible
4. Portable
5. Limited in Supply

It is very important to distinguish the functions from the characteristics of money.

- The functions of money tell you what money does or what people use money for.
- The characteristics of money tell you how money should be or what it should look like so that it may be able to fulfil its functions.

<u>Forms of Money</u>

Nowadays, the three main forms of money are:

- Currency in Circulation (Cash)
- Bank Deposits Accounts
- Cryptocurrencies

<u>Cash</u> consists of Coins and Notes. Cash money (both coins and notes) is **legal tender**. This means that *by law they CANNOT be refused in exchange for goods and services*.

- **<u>Coins</u>** are small, flat, (usually) round pieces of metal that are used to buy things with. Eurosystem coins are issued in denominations of €2, €1, 50 cents, 20 cents, 10 cents, 5 cents, 2 cents and 1 cent. In general, coins are used to pay for cheap items such as stationery items, bottles of water or fizzy drinks, small packets of food such as crisps and so on.

- **<u>Notes</u>** are pieces of paper that, like coins, fulfil the medium of exchange function of money. They are printed rather than minted. Typically, notes are used for payment of items of a higher value such as clothing, household goods and so on. Eurosystem notes are issued in denominations of €5, €10, €20, €50, €100, €200, and €500. These banknotes are legal tender to any amount throughout the whole euro area.

<u>Bank Deposit Accounts</u> consists of Demand Deposits Accounts and Term Deposit Accounts. A bank is an institution that accepts to hold money. This is done by opening an account. A **bank account** is the money a person deposited at the bank for safe-keeping.

- **<u>Demand Deposit Accounts</u>** are bank deposit accounts that may be withdrawn on demand. This means that when you deposit money at the bank in such an account, you do NOT have some period of time wherein you cannot take out the money you deposited. You can also use this account to pay someone from it without physically withdrawing cash. This can be done with debit cards, credit cards, internet banking, telephone banking, mobile banking as well as with standing orders and direct debits and direct credits.

    - **<u>Current Account Deposits</u>** are Demand Deposit Accounts where the holder may use cheques and also get permission from <u>the bank manager to use an overdraft</u>.
    - **<u>Savings Account Deposits</u>** are Demand Deposit Accounts where the holder may NOT use the cheque system and on which an overdraft may NOT be given.

- **<u>Term Deposit Accounts</u>** are bank deposit accounts that may NOT be withdrawn on demand. This means that when you deposit money at the bank in such an account, you cannot withdraw all or some of your money whenever you want to but you can only take out your money after the agreed maturity date. They are sometimes called 'Fixed Accounts'. Banks give you interest on the amount you deposited and the rate of interest is higher than the one given on Savings Account Deposits.

<u>Cryptocurrencies</u> are like digital money. Instead of physical coins or notes, they exist only on computers. They're secured by complex math problems and can be used to buy things or services online.

Section B – Credit Institutions

Learning Outcomes:

1. List the main roles of credit institutions.
2. Elaborate on the main roles of credit institutions. SDG 8, 13
3. Compare and contrast the main roles of credit institutions such as commercial banks with those of a national central bank (NCB) that is a member of the Eurosystem, such as the Central Bank of Malta (CBM).

A **credit institution** is an institution that accepts deposits, provides loans and carries out money transmission services. A **commercial bank** is an example of a credit institution that offers such services to the general public and to companies. Examples of commercial banks: ____

____

The main **functions of credit institutions** are:

1. **Accepting deposits** – credit institutions accept deposits (Demand Deposits and Term Deposits) from their customers.
2. **Transferring money between accounts** – credit institutions are the institutions that transfer money from one account to another. The transfer of money is known as **clearing**. Transfers can be done for:
   - Other bank accounts held by the same individual within the same bank.
   - Other bank accounts belonging to other individuals or businesses within the same bank.
   - Bank accounts of other individuals or businesses held by other banks.

   All banking institutions in Malta must hold a **reserve deposit –** the percentage is determined by the European Central Bank.

3. **Lending money** - Commercial banks lend money to individuals and firms. These usually take the forms of loans or overdraft facilities. Loans can be provided to businesses focusing on sustainable development or green technologies. By doing so, credit institutions directly contribute to SDG 8's goal of sustainable economic growth and SDG 13's objective to combat climate change.

The important economic point about bank lending is that when banks lend money, they increase the **supply of money** in the economy as opposed to when an individual lends money to another individual. When a bank lends money, it is not foregoing a sum of money but is, in fact, creating new money in the form of demand deposits. Bank lending creates money.

National Central Bank (Central Bank of Malta)

The functions of the Central Bank of Malta or CBM are:

- The Maintenance of Price Stability;
- Reserves management;
- Banker to the Banks and the Public Sector;

- Ensuring Financial Stability;
- Issue of Currency;

- Relations with International Institutions;

The Central Bank of Malta is a member of the European System of Central Banks (ESCB) and the Eurosystem and actively participates in their decision-making bodies. The Bank also participates in a number of institutions of the European Union (EU). These include the Economic and Financial Committee (EFC) and the Committee for Monetary, Financial and Balance of Payments Statistics (CMFB). The EFC advises the Council of the EU on economic and financial matters. The CMFB advises the European Commission on statistical issues.

- Economic analysis and research;

In order to fulfil its national and international obligations, the Central Bank of Malta compiles and publishes a wide variety of economic, financial and monetary statistics. The Bank also collects certain statistical information directly from the competent national authorities. These statistics are essential for good economic governance and are used for economic analysis and research within the Bank and in the Eurosystem.

- Collecting, compiling, disseminating and publishing statistics;
- Promoting and supporting the development of financial markets and efficient payment and settlement systems.

Commercial Bank vs Central Bank		
Aspect	**Commercial Bank**	**National Central Bank**
Primary Objective	Profit Maximisation	Ensure monetary stability and implement monetary policy
Functions	• Accept deposits. • Provide loans. • Offer money transmission services.	• Acts as banker to the government. • Manage money supply and set interest.
Money Creation	Create money through the loan-making process.	Ability to issue currency in line with ECB

Exercise Set A

Exercise 1 - Multiple Choice Questions

1. Which of the following best describes a primary function of money?

a) A form of art
b) A medium of exchange
c) A type of loan
d) A piece of land

2. The form of money that is electronic and exists only in digital form is:

a) Cash
b) Bank deposits
c) Rai stones
d) Cryptocurrencies

3. The main difference between the barter system and trading using money is:

a) Barter requires a double coincidence of wants.
b) Money depreciates over time.
c) Barter is a modern system.
d) Money involves exchanging goods for goods.

Exercise 2 - Fill-in-the-blanks

The main roles of credit institutions include accepting _____________, providing ___________ and money _____________ services. The Central Bank of Malta, as an NCB of the Eurosystem, is chiefly responsible for the country's _____________ policy.

Exercise 3 - Short-Answer Questions

a) What are the primary functions of money?

b) Explain how the barter system works and name one main challenge associated with it.

c) How can credit institutions contribute to SDG 13 (Climate Action)?

Part 2 – Interest Rates and Financing

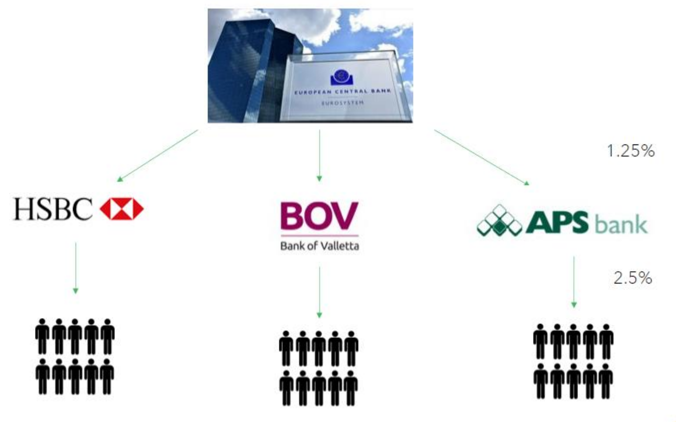
Section A – The Price of Money: Interest

Learning Outcomes:

1. Explain that interest is the price of money.
2. Describe the impact of changes in interest rates on savings and investment.
3. Show the impact of changes in interest rates using the Loanable Funds Theory in terms of demand and supply.

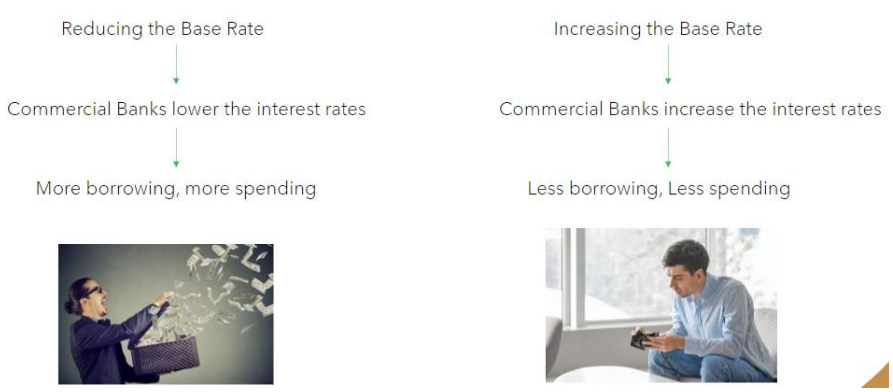
Interest is essentially the price or cost of borrowing money. It's what lenders charge for letting borrowers use their money. Similarly, for depositors or savers, interest is the reward for saving or lending out their money.

The Banking System



The Central Bank decides the base rate from which other interest rates are set. The **Base Rate** is the interest rate that a central bank will charge to lend money to commercial banks and on which commercial banks and other financial organisations base their interest rates.

The Base Rate



Commercial banks take deposits and savings from the Central Bank and customers and use them to produce assets for themselves (profit) by lending money to borrowers and/or investing the money in financial commodities (rent, interest, and dividends).

Commercial banks charge a rate of interest higher than the base rate for borrowers while giving savers a rate of interest lower than the base rate.

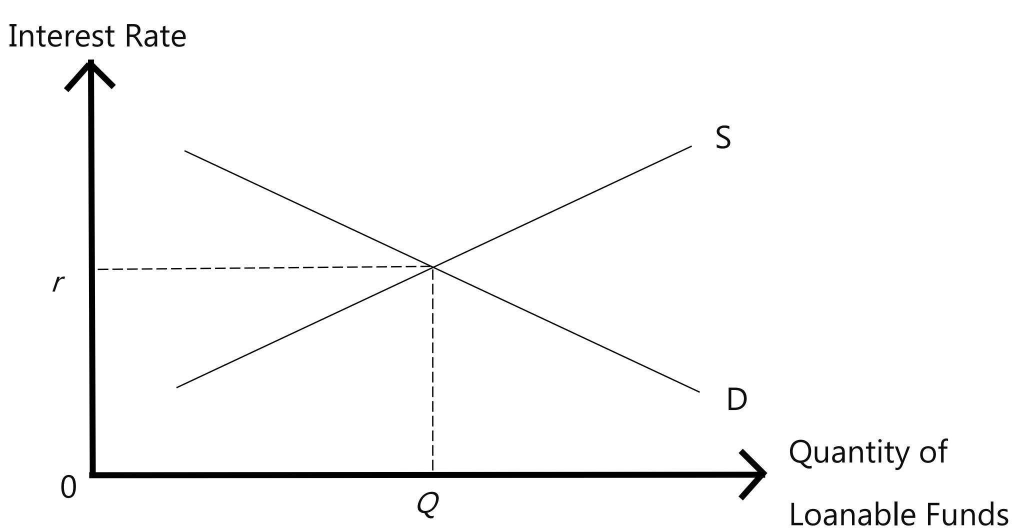
Increase in Interest Rates	Decrease in Interest Rates
↓	↓
Savings become ____________	Savings become ____________
↓	↓
Investments become ____________	Investments become ____________

The Loanable Funds Theory

The loanable funds theory explains how the supply and demand for loanable funds affect interest rates in an economy.

Loanable funds refer to all the money available for borrowing.

- The **supply of loanable funds** is made up of those who save funds. This includes money saved by households, profits earned by businesses but not spent and a government surplus. Factors influencing the supply of loanable funds include:
  - Wealth of households
  - Profits made by firms
  - Fiscal Policy
- The **demand for loanable funds** is made up of those who want to invest or borrow funds. Factors influencing the demand for loanable funds include:
  - Business opportunities
  - Consumer confidence
  - Technological progress
  - Government fiscal policies



Exercise - Show the impact of changes in interest rates using the Loanable Funds Theory in terms of demand and supply

An increase in savings

A global push towards green energy results in numerous green startups seeking funds to begin operations.

The central bank introduces reforms that reduce the reserve requirements for commercial banks.

Section B – Sources of Finance for Firms

Learning Outcomes:

1. List different internal and/or external sources of finance available to firms in the short run and/or in the long run.
2. Elaborate on different internal and/or external sources of finance available to firms in the short run and/or in the long run.
3. Compare and contrast different internal and/or external sources of finance available to firms in the short run and/or in the long run.

Small → Large Firms

Large firms are able to enjoy economies of scale over smaller firms. Economies of scale are advantages enjoyed by large firms just by being large, for example, marketing, financial, technical, and risk-bearing.

Motives for Growth

- Lower Average Cost
- To become large and powerful, push down prices, and restrict firms from competing.

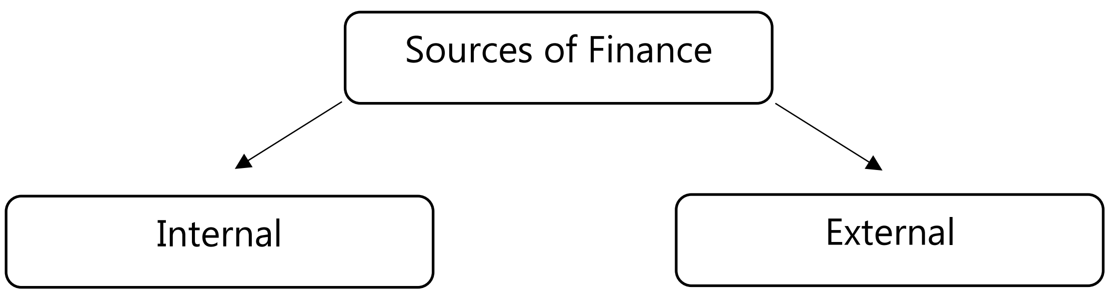
Resources are needed in order to produce goods and services – land, labour, capital, and entrepreneurship. However, resources cost money and a business may not have the working -capital available to finance a firm's operations.

Working-capital – being able to finance a firm's day-to-day operations.

Firms may also require the money to buy new capital and grow larger. Growing larger enables a firm to benefit from cost advantages, known as economies of scale.

Raising finance will not be free and there will always be a price that has to be paid. For example, a bank will grant a bank loan but will charge interest.

We distinguish between two sources of finance:



Internal Sources of Finance

When firms retain profits and re-invest them back into the business rather than giving them back to its owners.

1. Retained Earnings **(Long-run)**

The profits left in the business after taxes have been paid and dividends to shareholders have been given.

2. Sale of non-current assets **(Short-run)**

Selling non-current assets such as machinery or land will generate an amount of money towards the business.

External Sources of Finance

These are funds and working-capital that are raised through external means i.e., from outside entities.

1. Trade Credit **(Short-run)**

Trade Credit is given when a firm supplies goods to another firm allows a period of time before payment becomes due. The supplying firm is in effect providing short-term loans to its customers. The price for this type of credit is the discount that would have been received had the firm paid for the goods upon delivery.

2. Bank Overdraft **(Short-run)**

A bank overdraft is the most widely used type of short-term finance. It is a loan whereby the firm can continue to make withdrawals up to an agreed limit despite the fact that there are insufficient funds in the account to cover them.

The main advantage of a bank overdraft is that it is flexible type of loan as the account will only be overdrawn when required and interest will only be charged on any overdrawn balance which is calculated daily.

3. Short-Term and Long-Term Bank Loans

A short-term bank loan is provided for a fixed amount that will have to be paid back using regular installments or by a due date. The repayment period of such a bank loan does not exceed 3 years. In fact, many short-term bank loans do not exceed one year. Interest will be charged on the full amount.

Long-term bank loans are loans that exceed three years where payments are generally made through monthly installments.

4. Hire-Purchase Agreements **(Long-run)**

Hire-purchase agreements are generally used when a firm acquires capital equipment. The Hire-purchase company hires the goods to the buyer for a period during which time the buyer will have to pay regular installments. At the end of the period, the buyer is entitled to ownership of the goods. Ownership of the capital goods passes to the buyer only when the final installment has been made.

5. Leasing **(Long-run)**

The basic difference between hire purchase agreements and leasing is that at the end of the hire-purchasing agreement, the user of the asset will eventually become its owner. Under leasing agreements, the firm simply hires the equipment for as long as it needs and then returns the equipment.

6. Issuing of Shares **(Long-run)**

A ***share*** is a contract that states that the person who owns it has paid for part of the company and now has a share of ownership. Companies can issue new shares in order to raise more capital. Private Limited Companies (LTD) can sell their shares privately whereas Public Limited Companies (PLC). Companies sell shares with the promise of a dividend (part of the profits made) by the firm to the shareholders. As soon as an individual buys shares, he will receive a share certificate showing how much shares he bought and at what price.

Companies sell shares with the promise of a dividend (part of the profits made) by the firm to the shareholders.

There are two types of shares: Ordinary Shares and Preference Shares.

Ordinary Shares

- Ordinary Shareholders will not receive a fixed amount of dividend each year.
- Such Shareholders get a share of profit after tax has been paid and some has been retained.
- If there is no remaining profits, ordinary shareholders get no dividend.
- Each share carries one vote in the AGM.

Preference Shares

- Owner gets a fixed dividend each year.
- If no profits are made, dividends are lost.
- Preference shareholders have no right to vote.

Exercise Set B

Exercise 1 - Multiple Choice Questions

1. Which of the following is an internal source of finance?

a) Bank loan
b) Leasing
c) Retained Earnings
d) Issuing bonds

2. The price of money is often referred to as:

a) Profit
b) Dividend
c) Interest
d) Premium

3. An increase in interest rates would typically:

a) Encourage savings and discourage investment.
b) Discourage both savings and investment.
c) Encourage both savings and investment.
d) Discourage savings and encourage investment.

Exercise 2- Fill-in-the-blanks

When a company uses its profits, rather than paying them out as dividends, it is utilising _____________ as a source of finance. External sources of finance, such as ________________ and ______________, can be essential for firms looking to expand in the long run.

According to the Loanable Funds Theory, if the supply of funds increases, interest rates will ________________.

Exercise 3 - Short-Answer Questions

a) List at least three external sources of finance available to firms in the long run.
b) How do bank loans differ from issuing shares as a source of finance?
c) Explain why interest is considered the "price of money."
d) How can changes in interest rates affect a household's decision to save or invest?

Exercise 4 – Answer the following questions

PixelTech Ltd., a startup in the tech industry, has seen rapid growth in its initial two years. Its internal funds from retained earnings are substantial but not enough for an expansion plan. PixelTech is considering multiple sources of finance, including a major bank loan and issuing shares. However, with rumours of a potential rise in interest rates, the management is re-evaluating its options.

Questions:

a) Identify the internal and external sources of finance mentioned in the text.
b) How might an increase in interest rates affect PixelTech's decision to take a bank loan?
c) Based on the Loanable Funds Theory, how might the rumored rise in interest rates affect the supply and demand of loanable funds in the market?

Part 3 – Inflation

Section A – Introduction to Inflation

Learning Outcomes:

1. Describe how inflation is measured.
2. Calculate the inflation rate as a percentage. (Calculation of weighted index is not required.)
3. Distinguish between the RPI and the HICP.
4. Define inflation and/or deflation.
5. Elaborate on two general causes of inflation: cost-push and/or demand-pull inflation.
6. Assess the impact of inflation (cost-push and/or demand-pull) on households and businesses.

The amount of goods and services that consumers can buy will depend on the level of disposable income consumers have.

Create your own picnic		
Ingredient	**Price – 2019**	**Price – 2023**

Generally, the level of prices increases every year. This is known as ____________________. As a result, the cost of the same picnic in 2019 was different than the picnic in 2023. Assuming income remained the same from 2019 to 2023, the ________________ ____________________ of people has decreased.

Money Income is the value of a person's income expressed in euro.

Real Income refers to the quantity of goods and services that can be bought with the amount of money income. Real income = Money income – Inflation.

Purchasing Power is the real amount of goods and services that can be bought from each unit of money.

When prices rise, the wage of the workers will not buy as many goods as before. It is because people's real income will fall. Real income is the value in terms of what can be bought.

If a worker receives a raise of 6% and prices increase by 10%, is the worker better off?

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Increasing prices will _______________ the purchasing power of people.

The Rate of Inflation

Inflation is the sustained rise in the general level of prices of goods and services in an economy over time. It is a situation where average prices are rising!

- Some prices ____
- Some prices ____
- Few prices ____

Inflation can be described as a situation where purchasing power is falling and the cost of living is rising. So, an individual's disposable income can buy ____________ goods and services as prices increase.

Deflation is the opposite of inflation, it's a decrease in the general price level of goods and services, leading to increased purchasing power.

Inflation is expressed as a percentage rate. It expresses the rate of change in the average price level of a present year with a base (comparison) rate. So, an inflation rate of 2.6% means that there was a 2.6% increase in prices from last year. Malta's inflation rate for 2019 was 1.64%. This means that ____

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Having a low rate of inflation is good as higher prices motivate higher output (the law of supply, the higher the prices the higher the quantity supplied as suppliers would be more motivated to sell at higher prices. However, having high rates of inflation is a problem. The European Union states that inflation must be controlled and the rate of inflation must be around, but no more than 2.4%.

Measuring Inflation

Inflation is calculated by using a basket of goods and services bought by the average household. The goods and services are given a weighing according to the percentage of total consumer spending on the product. So, the food will be given more weighing than tobacco as households spend more money on food than on tobacco. Such information is used to compile the **Retail Price Index (RPI)** or the **Harmonised Index of Consumer Prices (HICP)**.

The Retail Price Index is used to measure the inflation in Malta whereas the Harmonised Index of Consumer Prices is used to measure the inflation rate of ALL EU countries. This will enable comparisons amongst EU member states.

To work out the price index, one has to compare the price of the representative basket of goods today compared to the cost of the same goods in the base year. A base year is chosen in which the original price of goods and services will be equal to 100%. In the coming years, the increase in the price of each product will be calculated as a percentage of the base year. So, the formula is:

$$Price\ Index = \frac{Present\ cost\ of\ a\ basket\ of\ goods}{Cost\ of\ the\ basket\ of\ goods\ in\ the\ base\ year} \times 100$$

Differences between the RPI and the HICP

1. Food has a larger weight in the RPI than in the HICP,
2. The RPI excludes hotel accommodation prices,
3. Both methods use different classifications, and
4. The RPI uses fixed weights whereas the ones used in the HICP are reviewed every year.

Note – Having said so, the RPI must review the weight attached to its commodities as it has to consider new goods coming into the market.

Exercises on RPI

1. The table below shows a representative basket with three products for 2017 and 2018. Calculate the percentage change in the price indices during the two years.

Product	Price in 2017	Price in 2018
Pizza	€9	€10
Cinema ticket	€10	€11
Petrol	€3	€3.5
Total basket price	€22	€24.5

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2. The table below shows the rate of inflation as measured both by an annual Retail Price Index (RPI) and by annual price changes expressed in percentage terms for a number of years. Calculate the rate of inflation for each year.

Year	Retail Price Index (Value of Basket - €)	Inflation Rate
6	800.00	/
7	810.50	1.31%
8	823.72	
9	828.90	
10	840.07	
11	843.54	
12	854.67	

Section B – Aggregate Demand and Aggregate Supply

Aggregate Demand (AD) refers to the total demand for all goods and services within an economy. For example, AD refers the total demand for all Maltese goods and services.

Aggregate Demand (AD) is made up of four components:

1. Consumption (C) – refers to the purchase of domestic goods and services by households. If households consume more (buy more food, cars, appliances, etc...), consumption will increase and AD will increase.

2. Investment (I) – refers to the purchase of capital goods by firms to expand production. An increase in investment will increase AD.

3. Government Spending (G) – refers to the expenditure (current and capital) by the Government in an economy. An increase in government spending will increase AD.

4. Net Exports (X-M) – refers to the difference between exports (X) and imports (M).
    - Exports (X) refers to selling local goods and services to abroad.
    - Imports (M) refers to buying goods and services from abroad.

   Thus, X > M ______________ AD and M > X _________________ AD.

Aggregate Supply (AS) is the total quantity of goods and services produced in the economy. An increase in AS means that the economy has managed to produce more using its available resources.

The model of Aggregate Demand (AD) and Aggregate Supply (AS) shows the effects of changes in AD and AS on the general level of prices (P) and real output (Y).

Section C – Causes of Inflation

Four different views exist regarding to what gives rise to inflation. Some believe:

1. Prices are pulled upwards by excess demand (Demand-Pull Inflation).
2. Prices are pushed upwards by rising costs (Cost-Push Inflation).
3. Inflation takes place when the Money Supply is allowed to rise at a faster rate than total output (Monetarist View).
4. Inflation is imported due to higher import prices (Imported Inflation).

Demand-Pull Inflation

Higher levels in demand drives up the general price level

This view argues that inflation is caused by an increase in Aggregate Demand. This is because an increase in Aggregate Demand will shift AD outwards.

An increase in AD will cause market prices to ________________ and inflation to ____________ if firms aren't able to increase the supply of goods and services at the same rate as demand.

Cost-Push Inflation

Prices are pushed upwards by rising costs

This view argues that inflation is caused by rising production costs which are passed onto consumers through increasing prices. This is because higher costs mean _________ profits for the entrepreneur, so prices are _____________ to keep the same profit.

Monetarist View (An increase in Money Supply)

Too much money chasing too few goods

The **Money Supply** (Ms) is the quantity of money in circulation. The Money Supply depends on two sole providers:

1. The Central Bank – The sole provider of coins and notes in a country. The European Central Bank (ECB) is responsible for the issue of the Euro.
2. Credit Creation through banks – Money is deposited into commercial banks and some is kept in reserves and some is lent out.

The Central Bank is able to increase or decrease the Money Supply through **Monetary Policy**. It is an increase in Money Supply that causes inflation to increase.

- An increase in Money Supply means more money is available to spend by consumers.
- Having more money to spend means an increase in Aggregate Demand – leads to Demand-Pull inflation.

The main instrument of Monetary Policy is the Minimum Lending Rate. This is a rate of interest charged by the Central Bank to loan money to commercial banks. Thus, raising or lowering the interest rate will affect the rate at which commercial banks:

- Charge businesses or consumers to borrow money.
- Pay as interest to those who deposit money.

So, a reduction in the rate of interest makes savings seen as ___________________ and investment/borrowing seen as __________________. This will _________________ Money Supply and people will have more money to spend and businesses will have the incentive to invest more – causing a boost in Demand.

If firms aren't able to increase the supply of goods and services at the same rate as demand, then there will be too much money chasing too few goods – leading to an increase in prices. This is because there will be a shortage!

Imported Inflation

This inflation occurs due to higher import prices, forcing up costs of production and therefore causing domestic inflation.

Section E – Effects/Costs of Inflation

Effects of Inflation on Customers

1. Inflation reduces the purchasing power of money. As prices increase with the same amount of money, ______________________________

   ____

   For example, with some €100 one is able to buy 20 units when the price is at €5, but only 10 units when the price is set at €10.

2. Inflation is unfair to savers – a person who saves up for the future would suffer a fall in purchasing power as she would be able to buy less goods at the time.

Effects of Inflation on Businesses

1. Inflation increases the costs of production of businesses and decreases profit margins. Firms need to adjust their prices in response to inflation.
   - Demand-pull inflation signifies increased sales from increased demand and businesses find it easier to raise prices.
   - Cost-push inflation signifies rising costs which lead to lower profits for businesses and reduced purchasing power for households.

2. Inflation is unfair to creditors – a person who lends money at a fixed rate will not be able to cover for the rising prices. Even though the creditor is getting the money back, she would still suffer a fall in ______________________________

3. Inflation creates instability in investments – firms may delay investment since the purchasing price of the material is uncertain.

Exercise Set C

Exercise 1 - Multiple Choice Questions

1. Inflation is primarily measured using:

   a) Gross Domestic Product (GDP)

   b) Retail Price Index (RPI)

   c) Unemployment Rate

2. Which of the following best describes demand-pull inflation?

   a) It arises when production costs increase.

   b) It is the result of a decrease in the aggregate demand.

   c) It is caused by excess demand in the economy.

3. Which of the following best describes cost-push inflation?

   a) It arises due to increased consumer demand.

   b) It is caused by reduced supply of money in the economy.

   c) It is the result of increased production costs.

Exercise 2 - Calculations

a) If the Retail Price Index (RPI) in Malta was 105.2 last year and it is 107.8 this year, calculate the inflation rate as a percentage.

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____

b) Given the RPI of 102.3 in the year 2020 and 104.5 in the year 2021, find the inflation rate for 2021.

____

____

c) Based on an RPI of 110 in 2022 compared to 105 in 2021, calculate the annual inflation rate for 2022.

____

____

Exercise 3 - Short-Answer Questions

a) Define deflation.

b) What are the main differences between the RPI and the HICP in Malta?

c) Describe how cost-push inflation might affect Maltese households and businesses.

Exercise 4 – Answer the following questions

In recent months, Malta has experienced a significant surge in tourist arrivals. Consequently, there's an increased demand for local goods and services. On the other hand, a series of international events has led to higher oil prices. The Maltese government recently released its RPI and HICP figures, showing a noticeable increase in both.

Questions

a) Based on the information provided, identify if Malta is experiencing demand-pull or cost-push inflation or both.

b) How might the surge in tourist arrivals affect the Maltese economy in terms of inflation?

c) If oil prices significantly influence the costs of production in Malta, what is the potential impact on local businesses and how might they respond?

Part 4 – Unemployment

Section A – Introduction to Unemployment

Learning Outcomes:

1. Describe unemployment.
2. Calculate unemployment rates.
3. Explain why variations in unemployment rates may arise among different age groups, gender and/or other social groups. SDGs 5, 8
4. List different types of unemployment. frictional, structural, seasonal, real wage and/or cyclical
5. Evaluate different policies to reduce each type of unemployment. frictional, structural, seasonal, real wage and/or cyclical.

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Employment is the state of having paid work. **Unemployment** is the state of being without paid work but is willing and able to work if a job becomes available.

- Willing - ____
- Able - ____

Thus, **unemployment** can be defined as all those people between sixteen years old and sixty-five years old who are willing and able to work but do not manage to obtain a job.

Full Employment – A macroeconomic aim

One of the main aims of macro economics is to achieve a situation where almost all people who are willing and able to work are employed. In any economy, it is difficult to have completely full employment where everyone is working because there will always be a rate of people who are employed as they are in-between jobs or re-training new skills (Natural Rate of Unemployment).

The Labour Force (Supply of Labour)

The **Supply of Labour/Labour Force** refers to all those people willing and able to work in a country.

- The employed (all employees in the public sector and private sector)
- Self-employed
- Unemployed.

People not included in the labour excludes those in education. Retired, stay-at-home parents, and those people who are not looking for work – **Dependent Population**.

Calculating the Rate of Unemployment

There are two main sources to determine the number of unemployed within a country.

1. Jobsplus unemployment register – This will give a headcount of the number of people who are out of work who are willing and able to work and are receiving unemployment benefits.
2. Labour Force Survey (NSO and EU) – This will determine the rate of unemployment by surveying households to collect work-related statistics.

The **Unemployment Rate** shows the proportion of the country's workforce that is unemployed.

$$\frac{Number\ of\ Unemployed}{Labour\ Force} \times 100\%$$

Book Activity 4.15

Variations in Unemployment amongst different social groups

SDG 5 - Gender Equality

SDG 5 seeks to achieve gender equality and empower all women and girls. Gender disparities in unemployment arise due to the following reasons in the context of SDG 5:

- **Discrimination** - Gender-based discrimination can lead to higher unemployment rates for women. They may be overlooked for roles in favour of their male counterparts.
- **Cultural Norms** - In certain cultures, the traditional role of women might dissuade women from participating in the workforce or restrict them to certain types of jobs.
- **Work-life Balance -** Lack of maternity leave, childcare facilities, or flexible working hours can discourage women from seeking or retaining employment.

SDG 8 - Decent Work and Economic Growth

SDG 8 promotes sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. Variations in unemployment rates among different age groups and other social groups can be related to SDG 8 as:

- **Youth Unemployment** - Young individuals, especially those entering the job market for the first time, often face high unemployment rates. This can be due to a lack of experience, skills, or opportunities, which SDG 8 seeks to address.
- **Structural Shifts -** As economies evolve, older industries might decline, leading to structural unemployment. Those who worked in these industries, often older

individuals, might find it hard to transition to other industries, causing higher unemployment rates.

- **Access to Resources and Discrimination** - Socioeconomic status, background, and education play a significant role in determining employment opportunities.

Section C – Types of Unemployment

1. Frictional Unemployment
    - This is when individuals move between jobs – a period of time where individuals are without paid work.
    - For example – graduates looking for jobs or people looking for new jobs.
    - Always present within an economy.

2. Structural Unemployment
    - Unemployment that results from changes in the structure of the economy.
    - For example, an economy that is developing will tend to have an increase in tertiary sector jobs whilst a decrease in primary and secondary sector jobs.
    - Such workers have unwanted/outdated skills - ______________________________
      ____

3. Real-wage Unemployment
    - Unemployment that happens when the wages workers are paid are higher than what employers want to pay.
    - It's when workers want a higher salary than what jobs are offering.
    - Businesses hire fewer people because they can't afford the high wages. This means more people are out of work and looking for jobs.

4. Seasonal Unemployment
    - This type of unemployment occurs in industries where worker skills are not required all-year round.
    - For example: ____

5. Cyclical/Demand-Deficient Unemployment
    - This occurs when there's a decrease in Aggregate Demand – worst situation for any economy.
    - A country that is hit too hard by a fall in Aggregate Demand is said to be in recession.
    - **Recession** – a period of time where income is falling and spending is falling.

Section E – Reducing Unemployment

The policy that is selected will be influenced by what is thought to have caused the unemployment and the effectiveness of the policy.

Unemployment	Policies to Reduce Unemployment
Frictional Unemployment	• Career Counselling • Improve job matching services
Structural Unemployment	• Re-skilling Programs • Changes in Education System
Real-Wage Unemployment	• Review of minimum wage • Wage subsidies
Seasonal Unemployment	• Promote off-season activities • Diversified skills training
Cyclical Unemployment	• Investment in infrastructure • Government policies to increase Aggregate Demand

Exercise Set D

Exercise 1 - Multiple Choice Questions

1. Which of the following best describes unemployment?

   a) People who are not willing to work.

   b) People who are actively looking for work but can't find a job.

   c) People who work fewer hours than they would like.

   d) People who just graduated from an educational institution.

2. Seasonal unemployment is most likely to affect which group of workers in Malta?

   a) Bankers

   b) Professors

   c) Tourist guides

   d) Nurses

Exercise 2 - Calculations

a) If Malta has an adult population of 350,000 and 30,000 of them are actively looking for work but can't find a job, calculate the unemployment rate.

____

____

b) Out of a labour force of 250,000, if 15,000 are unemployed, calculate the unemployment rate.

____

____

Exercise 3 - Write what type of unemployment each example is showing

i. ________________________ unemployment

Martina used to work in a lemonade-bottling factory where she used to put the tap to be sealed. Lately, a new machine has been installed that automatically does the whole process. Martina has been made redundant as he was no longer needed by the company.

ii. ________________________ unemployment

Chloe works for a pharmaceutical company. A recession has hit the country and she ended up unemployed. A friend of hers also ended up unemployed but she was promised to be given her job back once the economy goes back on its feet. He told her this is due to the business cycle.

iii. ________________________ unemployment

Mariah was eager to work at the local bakery, but the minimum wage was €15 per hour. The bakery owner, already struggling with expenses, couldn't afford to hire her at that rate.

iv. ________________________ unemployment

Anthea and her sister are both searching for a job. Anthea has just graduated from university whilst her sister lost her job a year ago.

v. ________________________ unemployment

Kristy has no job and for summer was given employment as a life guard at Pretty Bay. However, when summer was over she was unemployed again as this job opportunity lasts only 5 months.

Exercise 4 – Answer the following questions

Malta heavily relies on tourism. However, recent advancements in technology have led to the growth of remote work and e-commerce, shifting the dynamics of the local job market. Furthermore, it's noted that unemployment rates among the youth and female populations are higher than the national average. The Maltese government is keen on achieving SDGs 5 and 8, and thus is analysing these trends and considering new policies.

Questions

a) Based on the text, identify two types of unemployment present in Malta.
b) Why might the youth and female populations in Malta experience higher unemployment rates in the context of the case?
c) Suggest two policies the Maltese government might implement to reduce the unemployment rates among youth and females, keeping in mind SDGs 5 and 8.
d) How do technological advancements, like the rise of e-commerce, contribute to structural unemployment in Malta?