Topic 9 – Macroeconomic Policy

I can apply my understanding of macroeconomic concepts to inform my thinking about large-scale problem solving in local contexts, to help me think about global challenges and to think critically about the impact of macroeconomic solutions on the environment and on resource sustainability.

Section A – Government Revenue and Tax

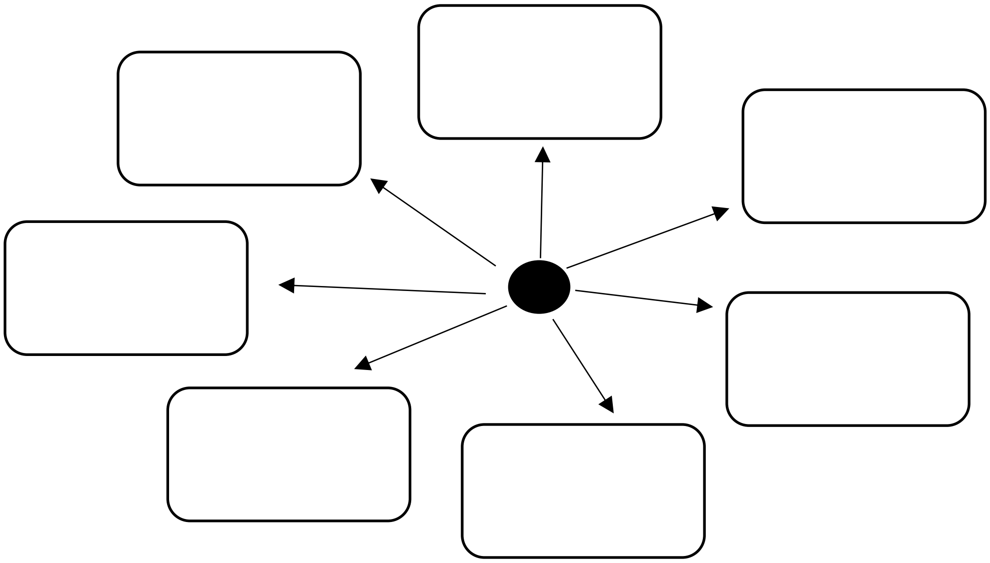
Learning Outcomes:

1. State the main items of government revenue.
2. Explain the main types of government tax revenue.
3. Compare and contrast the main types of government tax revenue.
4. Classify the main items of government tax revenue as progressive, regressive, or proportional.
5. Show your understanding of progressive, regressive and proportional taxes by means of a graph.
6. Distinguish between the distribution and redistribution of income.

The Public Sector is that part of the economy concerned with providing government services. In most countries the public sector includes such services as the ______________ ____ ____. So, we can say that the public sector might provide:

- Services that no payer can be excluded from, such as street lightning. These are known as P_________________________.
- Services which benefit all society rather than just the individual who uses the services, such as, education and health care. These are known as M______________.
- Services that encourage equal opportunity.

Main Items of Government Revenue



Taxation

Taxation refers to money that people and businesses must pay to the government. The government uses this money to run the country and provide services. Payment of taxation is mandatory by law.

Types of Taxation

- **Direct Taxes** – Taxes that are directly imposed on an individual's income and/or a businesses' profits.
- **Indirect Taxes** – Taxes imposed on spending and are taken indirectly from a person's income. Such taxes are paid by the client but collected by businesses on behalf of the government.
- **Social Security Contributions** – Taxes that workers and employers pay which are used to provide benefits like pensions, sickness benefits and other benefits. By paying into this system, individuals in Malta secure their entitlement to these benefits when the need arises.
- **Capital Taxes** – Taxes imposed on wealth and capital.

Examples of Local Taxation		
Taxation	**Explanation**	**Taxation Type**
Income Tax	An Income Tax is a tax levied/imposed on personal income. Income Tax is calculated using Income Tax Tables and there are separate tax rates for those who are single, married, and for those who are parents.	
Value Added Tax (VAT)	The VAT is a consumption tax which is levied at each stage of production based on the value added to the product at that stage. It is not a cost to the producer but is fully borne by the end consumer.	
Inheritance Tax	An inheritance tax is a tax which arises on the death of an individual. It is a tax on the total value of the money along with properties (houses, cars, antiques, jewellery, etc….) that are inherited from a deceased person.	
Capital Gains Tax	A capital gains tax is a tax charged on capital gains – the profit realised on the sale of an asset that was purchased at a lower price. The most common capital gains are realised from the sale of shares, precious metals and property.	
Corporation Tax	The corporation tax is a tax on company profits. The company tax rate in Malta is a flat rate of ______%.	
Customs Duty	A kind of indirect tax imposed on goods coming from other countries, excluding those coming from EU countries.	
Excise Duty	A tax charged on alcohol and tobacco products as an addition to customs duty. This is levied whether produced within the EU or outside the EU.	

Progressive, Regressive and Proportional Taxes

Exercise/Note on Progressive, Regressive and Proportional Taxes

Imagine three different taxation systems being proposed for the income of residents in Malta:

Tax System 1

- Income up to €10,000 is taxed at 10%.
- Income from €10,001 to €20,000 is taxed at 20%.
- Income above €20,000 is taxed at 30%.

Tax System 2

- All income up to €15,000 is taxed at 18%.
- Income above €15,000 is taxed at 10%.

Tax System 3

- All income, irrespective of the amount, is taxed at a flat rate of 15%.

Required

a) Maria earned €12,000 this year. Calculate how much tax Maria would owe under each tax system.
b) Joseph earned €9,000 this year. Calculate how much tax Joseph would owe under each tax system.
c) Anthony earned €25,000 this year. Calculate how much tax Anthony would owe under each tax system.

Progressive – A tax structure in which the average tax rate rises with an individual's income. So, the government takes proportionately more taxes from the __________ than the __________. Higher income earners pay a larger percentage. For example, _____________

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Regressive – A tax structure which takes a larger percentage of income from people whose income is low. This is because the percentage of tax is fixed, so everyone pays the same amount of money. For example, ____

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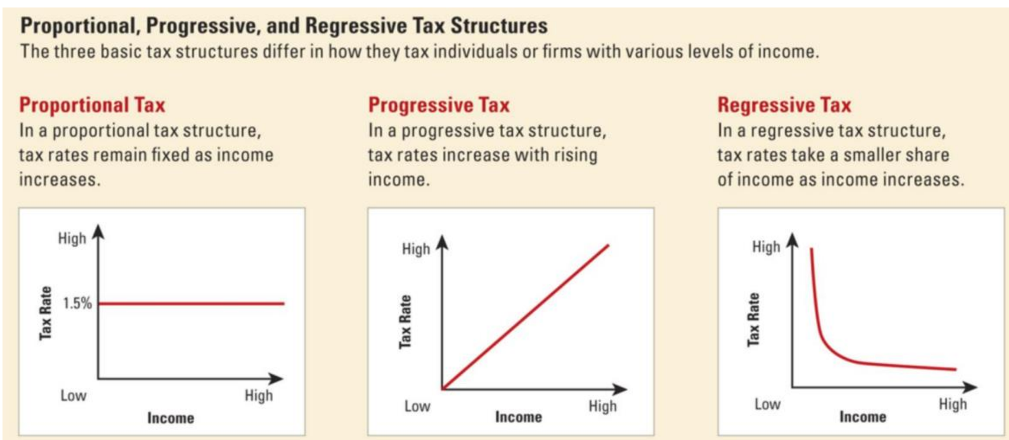
Proportional – A proportional tax rate is a tax structure where everyone pays the same rate of tax. For example, the corporation tax on profits.



<u>Income Distribution vs Income Redistribution</u>

- **Income distribution** refers to how income is <u>initially</u> spread out among members of a community through wages, rents, interests, and profits.
- **Income redistribution** is when the government steps in to move money around to achieve a more equal income distribution. This is done through taxes and provision of government benefits with the aim reducing income inequality and ensure that everyone has a basic standard of living.

In simple terms, while **income distribution** is how money is first divided among people, **income redistribution** is adjusting that division to make it fairer.

Section B – Government Expenditure and Budgetary Balance

Learning Outcomes:

1. State the main items of government expenditure.
2. Evaluate the government's budgetary balance, including its calculation from given data.

Government expenditure refers to the total amount of money that the government spends. It's essentially the cost of running the country and providing public services.

Main Items of Government Expenditure	Description
Public Goods	Public goods are items that everyone can make use of and no one can be excluded from. They aren't provided by the private sector because there's no way to charge individuals directly and prohibit someone from using it. For example, street lighting, public roads and national defence.
Providing Merit Goods	Merit goods are those that the government believes are beneficial for individuals and society but might not be provided in sufficient amounts (or at all) by the private sector. For example, education and public health services.
Providing Social Security	Social security is a system where the government provides monetary assistance to people with inadequate or no income, supporting them in times of unemployment, sickness, or retirement.
Regulating Economic Activity and Influencing the Allocation of Resources	The government sets rules and standards for businesses to ensure fair competition, protect consumers, and achieve societal goals. Through taxes and subsidies, the government can influence the economy.
General Administration	This refers to the day-to-day operations and functioning of the government.

Note on Government Budget

A budget is ____

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The two main purposes of a budget are:

1. An estimate of government spending.
2. Its plans influence the economy through fiscal policy.

Budgetary Balances

- **Balanced Budget** Revenue = Expenditure.
- **Budget Deficit** Expenditure > Revenue.
- **Budget Surplus** Revenue > Expenditure.

A government may reduce a budget deficit by ________________________________

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Fill in the missing values in the table and determine the type of budgetary balance for each year.

Year	Government Revenue (€)	Government Expenditure (€)	Budgetary Balance (€)	Type of Balance
2021	5,000,000	4,950,000		
2022	4,700,000		-100,000	
2023		5,500,000	200,000	

Section C – Macroeconomic Goals and Policy Options

Learning Outcomes:

1. State the main macroeconomic goals.
2. Relate the main macroeconomic goals to each other to show that there may be conflicts between them.
3. Describe demand-side policy options to achieve macroeconomic objectives.
4. Compare and/or contrast the monetary policy measures with the fiscal policy measures needed to achieve the macroeconomic objectives of a high and stable level of employment, price stability and/or a satisfactory balance of payments position.
5. Describe supply-side policy options to achieve macroeconomic objectives. labour market policy, incomes policy, expenditure-switching policy
6. Elaborate on the supply-side measures needed to achieve the macroeconomic objectives of a high and stable level of employment, price stability and/or a satisfactory balance of payments position.

Macroeconomic policy encompasses the strategies and measures employed by governments to manage the economy, focusing on objectives like employment, price stability, and sustainable economic growth – to achieve the macroeconomic goals.

The Macroeconomic Goals are High and Stable Level of Employment, Price Stability, Satisfactory Balance of Payments Position, Acceptable Rate of Sustainable Economic Growth, Equitable Distribution of Income and Wealth, Environmental Sustainability, and Sound Government Finances.

Macroeconomic Goal	Explanation
High and Stable Level of Employment	This ensures that most of the labour force is working and receiving income.
Price Stability	Keeping inflation at a moderate level ensures that purchasing power does not erode.
Satisfactory Balance of Payments Position	This means that the country's transactions with the rest of the world, in terms of trade and finance, are in a favourable balance.
Acceptable Rate of Sustainable Economic Growth	This ensures that the economy grows without causing environmental degradation and taking care of the needs and wants of future generations.
Equitable Distribution of Income and Wealth	This aims to reduce economic inequality amongst all groups in society.
Environmental Sustainability	Ensuring that economic growth doesn't compromise the environment for future generations.
Sound Government Finances	Maintaining balanced budgets, avoiding excessive debt and ensuring financial sustainability.

Demand-Side Policies

Demand-side policies are macroeconomic tools used by governments or central banks to influence the demand for goods and services in the economy (Aggregate Demand).

Monetary Policy

Monetary Policy involves the management of the money supply and interest rates by central banks. By increasing or decreasing the supply of money and/or by changing the rate of interest, central banks can influence aggregate demand in the economy.

Expansionary Monetary Policy

Contractionary Monetary Policy

The European Central Bank (ECB) is responsible for setting monetary policy within the Eurozone, the group of EU countries that have adopted the Euro as their currency. The primary objective of the ECB is to maintain price stability.

To achieve this:

1. **Interest Rates**: The ECB can adjust key interest rates, which influence borrowing and spending behaviours in the economy. For instance, lowering rates can _____________ borrowing and spending, whereas raising them can have the opposite effect.
2. **Reserve Requirements**: By changing the amount of reserves banks are required to hold, the ECB can influence the amount of money banks can lend.

Fiscal Policy

This involves the use of government spending and taxation policies to influence the economy and aggregate demand.

Expansionary Fiscal Policy

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Contractionary Fiscal Policy

Supply-Side Policies

Supply-side policies are macroeconomic measures that target the production side of the economy. They aim to increase the economy's potential output over the long term by improving its productive efficiency and increasing the quantity and quality of its resources.

Supply-Side Policies include:

- **Labour Market Policy**: Aims at the workforce (e.g., training programs).
- **Incomes Policy**: Involves controlling wages and salaries.
- **Expenditure-Switching Policy**: Redirecting expenditure patterns (exports vs imports).

Labour Market Policy

These are interventions aimed at making the labour market function more efficiently. They can include:

1. **Education and Training**
    - Such policies equip the Maltese workforce with skills that cater to its leading industries like ____.
    - **Impact on Aggregate Supply**
        - Targeted education boosts sectors that are vital for Malta's economy, leading to a _________________ shift in AS. This is because ___________ ____ ____

2. **Deregulation**
    - Such policies facilitate businesses' operations in Malta, especially in its Freeport and the growing online gaming industry.
    - **Impact on Aggregate Supply**
        - Simplifying business processes can lead to increased foreign investments in sectors like finance and online gaming.
        - Enhanced AS as businesses face fewer operational hindrances.

3. **Integration of Foreign Workers**
    - Address the workforce shortage in certain sectors, given Malta's small population.
    - **Impact on Aggregate Supply**
        - Increases the workforce in key industries, expanding the potential for production and thus increasing AS. It is crucial for sectors like construction and services, which often rely on foreign workers.

Incomes Policy

Incomes policies are strategies employed by governments to regulate wage and price increases.

1. **Wage Agreements**
    - Engage in collective bargaining to set wages through the MCESD.
    - **Impact on Aggregate Supply**
        - Controlled wage growth can help maintain cost-competitiveness supporting AS. This is to ensure that growth in AS is sustainable.

2. **Price Monitoring on Essentials**
    - Monitor and control the prices of essential goods, especially since Malta imports a significant portion of its necessities.
    - **Impact on Aggregate Supply**
        - Keeping essential goods affordable ensures the Maltese population's purchasing power remains stable. However, excessive controls might deter importers, affecting AS.

<u>Expenditure-Switching Policy</u>

Given Malta's reliance on imports and the importance of its export sectors, managing consumption patterns is crucial.

1. **Promotion of Local Produce**
    - To encourage consumption of Maltese-made goods and products.
    - **Impact on Aggregate Supply**
        - Boosts local industries like agriculture and crafts, leading to a potential increase in AS. This reduces dependence on imports, improving the balance of payments.
2. **Tourism Promotion**:
    - Attract foreign spending in Malta's primary revenue-generating sector.
    - **Impact on Aggregate Supply**
        - Tourism drives various sectors in Malta, from hospitality to transport. Increased tourism expenditure can significantly enhance AS.

Section D – Economic Challenges and Decisions

Learning Outcomes:

1. Show how sustainable choices can be made in a situation where resources are limited.
2. Relate the main macroeconomic goals to each other to show that there may be conflicts between them.
3. Show that an ageing population may be a strain on government expenditure.

Conflicts between the Macroeconomic Goals

Macroeconomic goals are important for a country, but sometimes trying to reach one goal can make it harder to reach another.

Conflict 1 - High/Stable Employment Level vs. Price Stability

- **Relation -** Policies aimed at boosting employment might inject more money into the economy, causing an increase in demand for goods and services.
- **Conflict -** ____
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Conflict 2 - High/Stable Employment Level vs. Satisfactory Balance of Payments

- **Relation -** Increasing employment might mean a surge in domestic consumption, which can include imported goods.
- **Conflict -** An increase in imports without a corresponding rise in exports can worsen the balance of payments.

Conflict 3 - Sustainable Economic Growth vs. Environmental Sustainability

- **Relation:** Economic growth is often linked with higher production, construction, and increased consumption.
- **Conflict:** ____
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Conflict 4 - Sustainable Economic Growth vs. Equitable Income/Wealth Distribution

- **Relation:** Economic growth can lead to increased opportunities and wealth generation.
- **Conflict:** The benefits of growth might not be evenly distributed, possibly leading to widening income or wealth inequalities within a country.

Conflict 5 - Sustainable Economic Growth vs. Price Stability

- **Relation:** Rapid economic growth can increase demand for goods and services.
- **Conflict:** If the supply doesn't match the rising demand, it can lead to inflation.

Conflict 6 - Equitable Income/Wealth Distribution vs. High/Stable Employment Level

- **Relation:** Efforts to redistribute income and wealth might involve policies like higher taxation for the rich and increased social security benefits for the poor.
- **Conflict:** If not done carefully, these redistributive policies might discourage investment and job creation, potentially affecting employment levels.

Conflict 7 - Environmental Sustainability vs. Sound Government Finances

- **Relation:** To achieve environmental sustainability, governments might need to invest in green technologies and set regulations that might deter certain industries.
- **Conflict:** These initiatives can be costly, and reducing certain industries might decrease tax revenues.

Conflict 8 - Price Stability vs. Sound Government Finances

- **Relation:** Governments might employ expansionary fiscal policies, such as increased spending or tax cuts, to spur economic activity.
- **Conflict:** While these measures can support economic growth, they might also increase the budget deficit, thus compromising government finances. Additionally, over-stimulating the economy can lead to inflation, threatening price stability.

Decision Making and Limited Resources

When resources are limited, sustainable choices become critical to ensure the prolonged well-being of the community and the environment. Here's how sustainable choices can be made in such situations:

- **Needs vs. Wants**: Prioritise essential needs over wants. This can be the difference between purchasing a crucial resource like water or a luxury item.
- **Maximise Efficiency**: Optimise the use of available resources. For instance, using water-saving technologies or energy-efficient appliances can allow the same task to be completed with less resource expenditure.
- **Recycle and Reuse**: Before disposing of used items, consider if they can be recycled or repurposed. This not only reduces waste but also decreases the demand on raw materials.

- **Long-term Planning**: Instead of short-term gains, focus on strategies that ensure resource availability in the long run. For example, practice sustainable farming which might yield slightly less now but ensures soil fertility for future generations.
- **Educate & Raise Awareness**: Knowledge is a vital tool. By informing the community about the importance and methods of sustainability, collective action can be more impactful.

Ageing Population

An ageing population presents several challenges to government expenditure:

- Healthcare Costs.
- Pensions.
- Decreased Labor Productivity.
- Increased Demand for Social Security Payments.
- Infrastructure & Housing
- Lower Economic Growth

It's worth noting that while an ageing population can strain government expenditure, strategies like encouraging higher birth rates, promoting immigration of younger populations, and policies to keep older people in the workforce longer can help mitigate some of these challenges.

Section E – Environmental Considerations in Policy

Learning Outcomes:

1. Outline investments on projects by the government for environmental purposes.
2. Show how governments try to force businesses to reduce their negative impact on the environment by market-based and/or law-based means.
3. Analyse case studies to understand the strengths and weaknesses of market-based versus law-based ways to force businesses to reduce their negative impact on the environment.
4. Analyse economic case material to assess the environmental implications of different resource allocations in producing goods/providing services.
5. Analyse current supply practices to lessen future exploitation and over-extraction of resources by profit-driven companies.

Governments around the world invest in various projects aimed at protecting and enhancing the environment. These include:

- Renewable Energy - Malta has been gradually shifting towards using renewable energy sources, such as solar power, given its abundant sunlight.

- Waste Management - Malta has invested in better waste management systems to reduce landfill usage and increase recycling.

- Water Conservation - Being an island nation with limited freshwater resources, Malta has projects aimed at water conservation and desalination.

Governments utilise a combination of market-based and law-based strategies to guide businesses toward environmentally friendly practices.

Market-Based Approaches

These involve using the price mechanism to provide incentives or disincentives for businesses to reduce their environmental footprint.

1. **Tax per Unit of Pollution**

Governments can impose a tax on businesses based on the amount of pollution they generate. By making pollution more costly, it provides a financial incentive for firms to limit or reduce their emissions.

2. **Subsidies for Green Technologies**

Governments can incentivise firms to adopt green technologies by offering subsidies or tax breaks. For example in Malta the government has offered grants for businesses to invest in photovoltaic systems, promoting a shift to solar energy.

Law-Based Approaches

Legal approaches involve direct regulations and laws that either limit or prohibit certain activities that harm the environment.

1. **Laws Banning or Limiting Polluting Activities**

Governments can outright ban certain pollutants or practices that are especially harmful to the environment. Alternatively, they might impose limits on how much of a particular pollutant can be emitted.

2. **Mandatory Standards and Regulations**

These are rules specifying the standards that processes, products, or activities must meet in terms of their environmental impact. For example building regulations in Malta stipulate that new buildings meet certain energy efficiency standards.

Analysis of Case Studies

Eco-Tourism Certification Scheme

Malta, as a popular tourist destination, introduces a voluntary eco-tourism certification. Hotels and resorts that achieve high environmental standards receive a special designation, allowing them to attract environmentally conscious travellers. Consider the incentive for hotels to join the scheme and the potential challenges of maintaining environmental standards. What could be the strengths and weaknesses of this market-based approach?

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Malta Plastic Reduction Act

In response to the growing concern over single-use plastics, Malta introduces a strict regulation that bans all single-use plastics in commercial settings, including restaurants and shops. Think about the direct impact of this law on businesses, the potential for reduced plastic waste in Malta's marine and terrestrial environments, and the challenges businesses might face. What could be the strengths and weaknesses of this law-based approach?

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Mandatory Solar Installation

Description: Given Malta's sunny climate, a new regulation mandates that all new commercial buildings must install solar panels covering at least 30% of their roof area. Prompt for Students: Reflect on how this could boost solar energy use in Malta, the challenges builders might face in integrating solar panels, and the potential for improved energy sustainability. What are the strengths and weaknesses of this law-based approach?

Water Conservation Incentive Program

Malta, being a water-scarce country, introduces a program offering tax reductions for businesses that implement significant water-saving technologies, like rainwater harvesting or greywater recycling. Consider the potential for businesses to adopt water-saving measures and the challenges in monitoring and verifying water savings. What could be the strengths and weaknesses of this market-based approach?