

Section #2: Macroeconomics—40 Hours for SL and 50 Hours for HL

2.1 The Level of Overall Economic Activity (One Topic HL Extension)

Subtopic	IB Points to Understand (for both SL and HL unless otherwise noted)
The circular flow of income model	<ul style="list-style-type: none">• Describe, using a diagram, the circular flow of income between households and firms in a closed economy with no government.• Identify the four factors of production and their respective payments (rent, wages, interest and profit) and explain that these constitute the income flow in the model.• Outline that the income flow is numerically equivalent to the expenditure flow and the value of output flow.• Describe, using a diagram, the circular flow of income in an open economy with government and financial markets, referring to leakages/ withdrawals (savings, taxes and import expenditure) and injections (investment, government expenditure and export revenue).• Explain how the size of the circular flow will change depending on the relative size of injections and leakages.
Measures of economic activity: gross domestic product (GDP), and gross national product (GNP) or gross national income (GNI)	<ul style="list-style-type: none">• Distinguish between GDP and GNP/GNI as measures of economic activity.• Distinguish between the nominal value of GDP and GNP/GNI and the real value of GDP and GNP/GNI.• Distinguish between total GDP and GNP/GNI and per capita GDP and GNP/GNI.• Examine the output approach, the income approach and the expenditure approach when measuring national income.• Evaluate the use of national income statistics, including their use for making comparisons over time, their use for making comparisons between countries and their use for making conclusions about standards of living.• Explain the meaning and significance of "green GDP", a measure of GDP that accounts for environmental destruction.• Calculate nominal GDP from sets of national income data, using the expenditure approach. (HL ONLY)• Calculate GNP/GNI from data (HL ONLY)• Calculate real GDP, using a price deflator (HL ONLY)
Short-term fluctuations and long-term trend	<ul style="list-style-type: none">• Explain, using a business cycle diagram, that economies typically tend to go through a cyclical pattern characterized by the phases of the business cycle.• Explain the long-term growth trend in the business cycle diagram as the potential output of the economy.• Distinguish between a decrease in GDP and a decrease in GDP growth.

2.2 Aggregate Demand and Aggregate Supply (One Topic HL Only)

Subtopic	IB Points to Understand (for both SL and HL unless otherwise noted)
The AD curve	<ul style="list-style-type: none">• Distinguish between the microeconomic concept of demand for a product and the macroeconomic concept of aggregate demand.• Construct an aggregate demand curve.• Explain why the AD curve has a negative slope.
The components of AD	<ul style="list-style-type: none">• Describe consumption, investment, government spending and net exports as the components of aggregate demand.
The determinants of AD or causes of shifts in the AD curve	<ul style="list-style-type: none">• Explain how the AD curve can be shifted by changes in consumption due to factors including changes in consumer confidence, interest rates, wealth, personal income taxes (and hence disposable income) and level of household indebtedness.• Explain how the AD curve can be shifted by changes in investment due to factors including interest rates, business confidence, technology, business taxes and the level of corporate indebtedness.• Explain how the AD curve can be shifted by changes in government spending due to factors including political and economic priorities.• Explain how the AD curve can be shifted by changes in net exports due to factors including the income of trading partners, exchange rates and changes in the level of protectionism.
The meaning of aggregate supply	<ul style="list-style-type: none">• Describe the term aggregate supply.• Explain, using a diagram, why the short-run aggregate supply curve (SRAS curve) is upward sloping.• Explain, using a diagram, how the AS curve in the short run (SRAS) can shift due to factors including changes in resource prices, changes in business taxes and subsidies and supply shocks.
Alternative views of aggregate supply	<ul style="list-style-type: none">• Explain, using a diagram, that the monetarist/new classical model of the longrun aggregate supply curve (LRAS) is vertical at the level of potential output (full employment output) because aggregate supply in the long run is independent of the price level.• Explain, using a diagram, that the Keynesian model of the aggregate supply curve has three sections because of "wage/price" downward inflexibility and different levels of spare capacity in the economy.
Shifting the aggregate supply curve over the long term	<ul style="list-style-type: none">• Explain, using the two models above, how factors leading to changes in the quantity and/or quality of factors of production (including improvements in efficiency, new technology, reductions in unemployment, and institutional changes) can shift the aggregate supply curve over the long term.
Short-run equilibrium	<ul style="list-style-type: none">• Explain, using a diagram, the determination of short-run equilibrium, using the SRAS curve.• Examine, using diagrams, the impacts of changes in shortrun equilibrium.
Equilibrium in the monetarist/new classical model	<ul style="list-style-type: none">• Explain, using a diagram, the determination of long-run equilibrium, indicating that long-run equilibrium occurs at the full employment level of output.

- Explain why, in the monetarist/new classical approach, while there may be short-term fluctuations in output, the economy will always return to the full employment level of output in the long run.
- Examine, using diagrams, the impacts of changes in the long-run equilibrium.

Equilibrium in the Keynesian model

- Explain, using the Keynesian AD/AS diagram, that the economy may be in equilibrium at any level of real output where AD intersects AS.
- Explain, using a diagram, that if the economy is in equilibrium at a level of real output below the full employment level of output, then there is a deflationary (recessionary) gap.
- Discuss why, in contrast to the monetarist/new classical model, the economy can remain stuck in a deflationary (recessionary) gap in the Keynesian model.
- Explain, using a diagram, that if AD increases in the vertical section of the AS curve, then there is an inflationary gap.
- Discuss why, in contrast to the monetarist/new classical model, increases in aggregate demand in the Keynesian AD/AS model need not be inflationary, unless the economy is operating close to, or at, the level of full employment.

The nature of the Keynesian multiplier (HL ONLY)

- **Explain, with reference to the concepts of leakages (withdrawals) and injections, the nature and importance of the Keynesian multiplier.**
- **Calculate the multiplier using either of the following formulae: $1/(1-MPC)$ or $1/(MPS + MPT + MPM)$**
- **Use the multiplier to calculate the effect on GDP of a change in an injection in investment, government spending or exports.**
- **Draw a Keynesian AD/AS diagram to show the impact of the multiplier.**

2.3 Macroeconomic Objectives (Some Topics HL Extension, Plus One Topic HL Only)

Subtopic

IB Points to Understand (for both SL and HL unless otherwise noted)

The meaning of unemployment

- Define the term unemployment.
- Explain how the unemployment rate is calculated.
- Explain the difficulties in measuring unemployment, including the existence of hidden unemployment, the existence of underemployment, and the fact that it is an average and therefore ignores regional, ethnic, age and gender disparities.
- **Calculate the unemployment rate from a set of data. (HL ONLY)**

Consequences of unemployment

- Discuss possible economic consequences of unemployment, including a loss of GDP, loss of tax revenue, increased cost of unemployment benefits, loss of income for individuals, and greater disparities in the distribution of income.
- Discuss possible personal and social consequences of unemployment, including increased crime rates, increased stress levels, increased indebtedness, homelessness and family breakdown.

Types and causes of unemployment

- Describe, using examples, the meaning of frictional, structural, seasonal and cyclical (demand-deficient) unemployment.

	<ul style="list-style-type: none"> • Distinguish between the causes of frictional, structural, seasonal and cyclical (demand-deficient) unemployment. Explain, using a diagram, that cyclical unemployment is caused by a fall in aggregate demand. • Explain, using a diagram, that structural unemployment is caused by changes in the demand for particular labour skills, changes in the geographical location of industries, and labour market rigidities. • Evaluate government policies to deal with the different types of unemployment.
The meaning of inflation, disinflation and deflation	<ul style="list-style-type: none"> • Distinguish between inflation, disinflation and deflation. • Explain that inflation and deflation are typically measured by calculating a consumer price index (CPI), which measures the change in prices of a basket of goods and services consumed by the average household. • Explain that different income earners may experience a different rate of inflation when their pattern of consumption is not accurately reflected by the CPI. • Explain that inflation figures may not accurately reflect changes in consumption patterns and the quality of the products purchased. • Explain that economists measure a core/underlying rate of inflation to eliminate the effect of sudden swings in the prices of food and oil, for example. • Explain that a producer price index measuring changes in the prices of factors of production may be useful in predicting future inflation. • Construct a weighted price index, using a set of data provided. (HL ONLY) • Calculate the inflation rate from a set of data. (HL ONLY)
Consequences of inflation	<ul style="list-style-type: none"> • Discuss the possible consequences of a high inflation rate, including greater uncertainty, redistributive effects, less saving, and the damage to export competitiveness.
Consequences of deflation	<ul style="list-style-type: none"> • Discuss the possible consequences of deflation, including high levels of cyclical unemployment and bankruptcies.
Types and causes of inflation	<ul style="list-style-type: none"> • Explain, using a diagram, that demand-pull inflation is caused by changes in the determinants of AD, resulting in an increase in AD. • Explain, using a diagram, that cost-push inflation is caused by an increase in the costs of factors of production, resulting in a decrease in SRAS. • Evaluate government policies to deal with the different types of inflation.
Possible relationships between unemployment and inflation (HL ONLY)	<ul style="list-style-type: none"> • Discuss, using a short-run Phillips curve diagram, the view that there is a possible trade-off between the unemployment rate and the inflation rate in the short run. • Explain, using a diagram, that the short-run Phillips curve may shift outwards, resulting in stagflation (caused by a decrease in SRAS due to factors including supply shocks). • Discuss, using a diagram, the view that there is a longrun Phillips curve that is vertical at the natural rate of unemployment and therefore there is no trade-off between the unemployment rate and the inflation rate in the long run. • Explain that the natural rate of unemployment is the rate of unemployment that exists when the economy is producing at the full employment level of output.

The meaning of economic growth	<ul style="list-style-type: none"> Define economic growth as an increase in real GDP. Calculate the rate of economic growth from a set of data. (HL ONLY)
Causes of economic growth	<ul style="list-style-type: none"> Describe, using a production possibilities curve (PPC) diagram, economic growth as an increase in actual output caused by factors including a reduction in unemployment and increases in productive efficiency, leading to a movement of a point inside the PPC to a point closer to the PPC. Describe, using a PPC diagram, economic growth as an increase in production possibilities caused by factors including increases in the quantity and quality of resources, leading to outward PPC shifts. Describe, using an LRAS diagram, economic growth as an increase in potential output caused by factors including increases in the quantity and quality of resources, leading to a rightward shift of the LRAS curve. Explain the importance of investment for economic growth, referring to investment in physical capital, human capital and natural capital. Explain the importance of improved productivity for economic growth.
Consequences of economic growth	<ul style="list-style-type: none"> Discuss the possible consequences of economic growth, including the possible impacts on living standards, unemployment, inflation, the distribution of income, the current account of the balance of payments, and sustainability.
The meaning of equity in the distribution of income	<ul style="list-style-type: none"> Explain the difference between equity in the distribution of income and equality in the distribution of income. Explain that due to unequal ownership of factors of production, the market system may not result in an equitable distribution of income.
Indicators of income equality/inequality	<ul style="list-style-type: none"> Analyse data on relative income shares of given percentages of the population, including deciles and quintiles. Draw a Lorenz curve and explain its significance. Explain how the Gini coefficient is derived and interpreted.
Poverty	<ul style="list-style-type: none"> Distinguish between absolute poverty and relative poverty. Explain possible causes of poverty, including low incomes, unemployment and lack of human capital. Explain possible consequences of poverty, including low living standards, and lack of access to health care and education.
The role of taxation in promoting equity	<ul style="list-style-type: none"> Distinguish between direct and indirect taxes, providing examples of each, and explain that direct taxes may be used as a mechanism to redistribute income. Distinguish between progressive, regressive and proportional taxation, providing examples of each. Calculate the marginal rate of tax and the average rate of tax from a set of data. (HL ONLY)
Other measures to promote equity	<ul style="list-style-type: none"> Explain that governments undertake expenditures to provide directly, or to subsidize, a variety of socially desirable goods and services (including health care services, education, and infrastructure that includes sanitation and clean water supplies), thereby making them available to those on low incomes.

- Explain the term transfer payments, and provide examples, including old age pensions, unemployment benefits and child allowances

The relationship between equity and efficiency

- Evaluate government policies to promote equity (taxation, government expenditure and transfer payments) in terms of their potential positive or negative effects on efficiency in the allocation of resources.

2.4 Fiscal Policy

Subtopic	IB Points to Understand (for both SL and HL unless otherwise noted)
Sources of government revenue	<ul style="list-style-type: none"> • Explain that the government earns revenue primarily from taxes (direct and indirect), as well as from the sale of goods and services and the sale of state-owned (government owned) enterprises.
Types of government expenditures	<ul style="list-style-type: none"> • Explain that government spending can be classified into current expenditures, capital expenditures and transfer payments, providing examples of each.
The budget outcome	<ul style="list-style-type: none"> • Distinguish between a budget deficit, a budget surplus and a balanced budget. • Explain the relationship between budget deficits/ surpluses and the public (government) debt.
Fiscal policy and short-term demand management	<ul style="list-style-type: none"> • Explain how changes in the level of government expenditure and/or taxes can influence the level of aggregate demand in an economy. • Describe the mechanism through which expansionary fiscal policy can help an economy close a deflationary (recessionary) gap. • Construct a diagram to show the potential effects of expansionary fiscal policy, outlining the importance of the shape of the aggregate supply curve. • Describe the mechanism through which contractionary fiscal policy can help an economy close an inflationary gap. • Construct a diagram to show the potential effects of contractionary fiscal policy, outlining the importance of the shape of the aggregate supply curve.
The impact of automatic stabilizers	<ul style="list-style-type: none"> • Explain how factors including the progressive tax system and unemployment benefits, which are influenced by the level of economic activity and national income, automatically help stabilize short-term fluctuations.
Fiscal policy and its impact on potential output	<ul style="list-style-type: none"> • Explain that fiscal policy can be used to promote long-term economic growth (increases in potential output) indirectly by creating an economic environment that is favourable to private investment, and directly through government spending on physical capital goods and human capital formation, as well as provision of incentives for firms to invest.
Evaluation of fiscal policy	<ul style="list-style-type: none"> • Evaluate the effectiveness of fiscal policy through consideration of factors including the ability to target sectors of the economy, the direct impact on aggregate demand, the effectiveness of promoting economic activity in a recession, time lags, political constraints, crowding out, and the inability to deal with supplyside causes of instability.

Interest rate
determination and the
role of a central bank

- Describe the role of central banks as regulators of commercial banks and bankers to governments.
- Explain that central banks are usually made responsible for interest rates and exchange rates in order to achieve macroeconomic objectives.
- Explain, using a demand and supply of money diagram, how equilibrium interest rates are determined, outlining the role of the central bank in influencing the supply of money.

Monetary policy and
short-term demand
management

- Explain how changes in interest rates can influence the level of aggregate demand in an economy.
- Describe the mechanism through which easy (expansionary) monetary policy can help an economy close a deflationary (recessionary) gap.
- Construct a diagram to show the potential effects of easy (expansionary) monetary policy, outlining the importance of the shape of the aggregate supply curve.
- Describe the mechanism through which tight (contractionary) monetary policy can help an economy close an inflationary gap.
- Construct a diagram to show the potential effects of tight (contractionary) monetary policy, outlining the importance of the shape of the aggregate supply curve.

Monetary policy and
inflation targeting

- Explain that central banks of certain countries, rather than focusing on the maintenance of both full employment and a low rate of inflation, are guided in their monetary policy by the objective to achieve an explicit or implicit inflation rate target.

Evaluation of monetary
policy

- Evaluate the effectiveness of monetary policy through consideration of factors including the independence of the central bank, the ability to adjust interest rates incrementally, the ability to implement changes in interest rates relatively quickly, time lags, limited effectiveness in increasing aggregate demand if the economy is in deep recession and conflict among government economic objectives.

Supply-side policies and the economy	<ul style="list-style-type: none"> Explain that supply-side policies aim at positively affecting the production side of an economy by improving the institutional framework and the capacity to produce (that is, by changing the quantity and/or quality of factors of production). State that supply-side policies may be market-based or interventionist, and that in either case they aim to shift the LRAS curve to the right, achieving growth in potential output.
Investment in human capital	<ul style="list-style-type: none"> Explain how investment in education and training will raise the levels of human capital and have a short-term impact on aggregate demand, but more importantly will increase LRAS.
Investment in new technology	<ul style="list-style-type: none"> Explain how policies that encourage research and development will have a short-term impact on aggregate demand, but more importantly will result in new technologies and will increase LRAS.
Investment in infrastructure	<ul style="list-style-type: none"> Explain how increased and improved infrastructure will have a short-term impact on aggregate demand, but more importantly will increase LRAS.
Industrial policies	<ul style="list-style-type: none"> Explain that targeting specific industries through policies including tax cuts, tax allowances and subsidized lending promotes growth in key areas of the economy and will have a short-term impact on aggregate demand but, more importantly, will increase LRAS.
Policies to encourage competition	<ul style="list-style-type: none"> Explain how factors including deregulation, privatization, trade liberalization and antimonopoly regulation are used to encourage competition.
Labour market reforms	<ul style="list-style-type: none"> Explain how factors including reducing the power of labour unions, reducing unemployment benefits and abolishing minimum wages are used to make the labour market more flexible (more responsive to supply and demand).
Incentive-related policies	<ul style="list-style-type: none"> Explain how factors including personal income tax cuts are used to increase the incentive to work, and how cuts in business tax and capital gains tax are used to increase the incentive to invest.
The strengths and weaknesses of supply-side policies	<ul style="list-style-type: none"> Evaluate the effectiveness of supply-side policies through consideration of factors including time lags, the ability to create employment, the ability to reduce inflationary pressure, the impact on economic growth, the impact on the government budget, the effect on equity, and the effect on the environment.

2.5 Monetary Policy

2.6 Supply-Side Policies

Subtopic	IB Points to Understand (for both SL and HL unless otherwise noted)
Supply-side policies and the economy	<ul style="list-style-type: none"> Explain that supply-side policies aim at positively affecting the production side of an economy by improving the institutional framework and the capacity to produce (that is, by changing the quantity and/or quality of factors of production).

	<ul style="list-style-type: none"> State that supply-side policies may be market-based or interventionist, and that in either case they aim to shift the LRAS curve to the right, achieving growth in potential output.
Investment in human capital	<ul style="list-style-type: none"> Explain how investment in education and training will raise the levels of human capital and have a short-term impact on aggregate demand, but more importantly will increase LRAS.
Investment in new technology	<ul style="list-style-type: none"> Explain how policies that encourage research and development will have a short-term impact on aggregate demand, but more importantly will result in new technologies and will increase LRAS.
Investment in infrastructure	<ul style="list-style-type: none"> Explain how increased and improved infrastructure will have a short-term impact on aggregate demand, but more importantly will increase LRAS.
Industrial policies	<ul style="list-style-type: none"> Explain that targeting specific industries through policies including tax cuts, tax allowances and subsidized lending promotes growth in key areas of the economy and will have a short-term impact on aggregate demand but, more importantly, will increase LRAS.
Policies to encourage competition	<ul style="list-style-type: none"> Explain how factors including deregulation, privatization, trade liberalization and antimonopoly regulation are used to encourage competition.
Labour market reforms	<ul style="list-style-type: none"> Explain how factors including reducing the power of labour unions, reducing unemployment benefits and abolishing minimum wages are used to make the labour market more flexible (more responsive to supply and demand).
Incentive-related policies	<ul style="list-style-type: none"> Explain how factors including personal income tax cuts are used to increase the incentive to work, and how cuts in business tax and capital gains tax are used to increase the incentive to invest.
The strengths and weaknesses of supply-side policies	<ul style="list-style-type: none"> Evaluate the effectiveness of supply-side policies through consideration of factors including time lags, the ability to create employment, the ability to reduce inflationary pressure, the impact on economic growth, the impact on the government budget, the effect on equity, and the effect on the environment.