GCE A LEVEL

1520U40-1

S25-1520U40-1

THURSDAY, 5 JUNE 2025 – MORNING

ECONOMICS – A2 unit 4
Evaluating Economic Models and Policies

2 hours 30 minutes

ADDITIONAL MATERIALS

A WJEC pink 16-page answer booklet.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

You may use a pencil for graphs and diagrams only.

Answer **one** question from Section A.

Answer **one** question from Section B.

Answer **one** question from Section C.

Write your answers in the separate answer booklet provided, following the instructions on the front of the answer booklet.

Use both sides of the paper. Write only within the white areas of the booklet.

Write the question number in the two boxes in the left-hand margin at the start of each answer, for example **0 1** .

Leave at least two line spaces between each answer.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded of the necessity for good English and orderly, clear presentation in your answers.

You are reminded that this paper is synoptic and so will test understanding of the connections between the different elements of the subject.

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SECTION A

Answer **one** question from this section.

Either,

0 1

a) Explain, using relevant diagrams, the difference between the shape of the average and marginal revenue curves for both perfect competition and monopolistic competition. [10]

b) With the use of an appropriate diagram(s), evaluate the view that perfectly competitive markets are the most desirable market structure. [20]

Or,

0 2

a) Using numerical examples relating to total and marginal product, explain the law of diminishing returns and how the law impacts on marginal costs. [10]

b) With the use of an appropriate diagram(s), discuss how a large firm in an oligopolistic market structure can increase both its market share and profits. [20]

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SECTION B

Answer **one** question from this section.

Either,

0 3 **a)** Explain how both quantitative easing and quantitative tightening are expected to work in an economy. [10]

b) To what extent is inflation more harmful than deflation for an economy? [20]

Or,

0 4 **a)** Explain how both discretionary and automatic government fiscal policy can lead to budget (fiscal) deficits. [10]

b) Discuss the view that it is always appropriate to tighten fiscal policy during periods of economic downturn as a way of reducing a budget (fiscal) deficit. [20]

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SECTION C

Answer **one** question from this section.

Either,

0 5

a) Other than the human development index (HDI), explain measures of economic development and why they might be suitable for indicating living standards. [10]

b) To what extent is poor governance (institutional weakness) the biggest obstacle facing LEDCs aiming to raise their level of economic development? [20]

Or,

0 6

a) Using an exchange rate diagram(s), explain how and why a country might manipulate its exchange rate as a form of protectionism. [10]

b) Moldova is one of the poorest countries in Europe. If a country such as this were to join the European Union (EU), assess the extent to which this will benefit existing EU members. [20]

END OF PAPER

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

01 a)

Average revenue (AR) is total revenue divided by output (TR/Q), so it equals the price received per unit and the AR curve is the firm's demand curve.

Marginal revenue (MR) is the change in total revenue from selling one additional unit of output (ΔTR/ΔQ).

Diagram 1: perfect competition (firm)

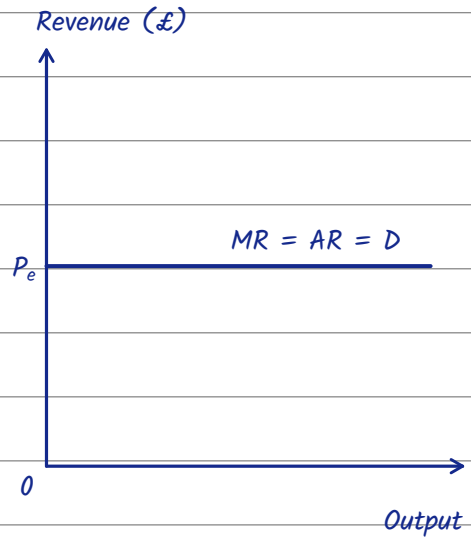
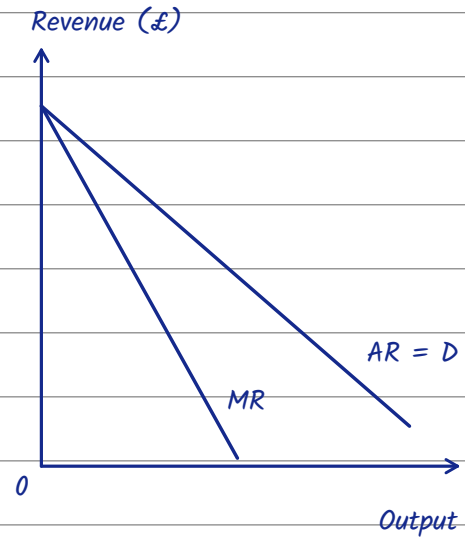


Diagram 2: monopolistic competition



Perfect competition: there is a very large number of small firms selling homogeneous products, with perfect information and no barriers to entry or exit. The market price P_e is set by industry demand and supply and each firm is a price taker. Because its output is tiny relative to the market, the firm can sell any quantity at P_e. If it raised its price above P_e, buyers with perfect knowledge would switch to identical rivals and its sales would fall to zero, and there is no reason to cut its price below P_e. The firm's AR curve is therefore horizontal, i.e. perfectly price elastic, at the industry price, as shown in Diagram 1.

Since every extra unit is sold at the same price, each additional unit adds exactly P_e to total revenue, so MR is constant and equal to AR. For example, if the price is £5, AR = £5 at every output and selling one more unit raises TR

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by £5, so MR = £5. In perfect competition the two curves are the same line: MR = AR = D.

Monopolistic competition: there are many firms, but each sells a differentiated product (branding, location, quality) and consumers have imperfect information. This creates some brand loyalty, so each firm is a price maker: it can raise its price without losing all its customers. To sell more, however, it must lower its price, because consumers buy extra units only at lower prices (diminishing marginal utility, and the income and substitution effects). AR therefore slopes downwards (Diagram 2). It is relatively price elastic because close substitutes exist, so it is flatter than a monopolist's AR.

MR also slopes downwards but lies below AR and falls more rapidly. This is because to sell one more unit the firm must cut the price not only on the extra unit but on all the units it was already selling. For example, if 10 units sell at £10 (TR = £100) and 11 units sell at £9.50 (TR = £104.50), the 11th unit adds only £4.50 to TR, well below its price of £9.50. With a linear AR, MR starts at the same point on the revenue axis but has twice the gradient, cutting the output axis halfway to where AR would.

Where MR > 0, demand (AR) is price elastic, as a price cut raises TR; where MR = 0, TR is maximised and PED = 1; where MR < 0, demand is price inelastic, as a further price cut reduces TR.

The key difference is therefore that the perfectly competitive firm faces a perfectly elastic AR, so MR = AR at every output, whereas the monopolistically competitive firm faces a downward-sloping AR, so MR < AR and MR falls twice as fast. This is why the perfectly competitive firm maximises profit where MC = MR = P, while the monopolistically competitive firm sets a price above MC.

01 b) Perfect competition is a market structure with a very large number of small firms selling homogeneous products, perfect information, no barriers to entry or exit, and firms that are price takers. Firms can earn supernormal (abnormal)

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profit in the short run, but this attracts new entrants, shifting industry supply to the right and lowering price until only normal profit is earned in the long run. Desirability can be judged on efficiency, prices, choice and innovation, and on the gains to different stakeholders: consumers, workers, firms and the government.

Diagram 1 shows the long-run equilibrium of a perfectly competitive firm. The price P_1 = MR = AR is set by the industry and the firm produces Q_1, where MC = MR. Because P = AC at Q_1, it earns only normal profit.

Diagram 1: perfect competition, long run

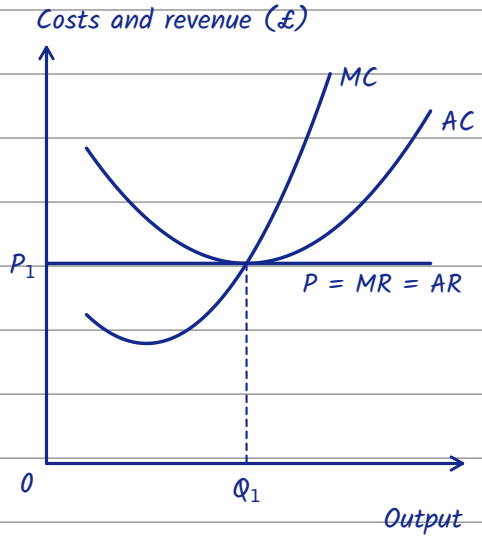
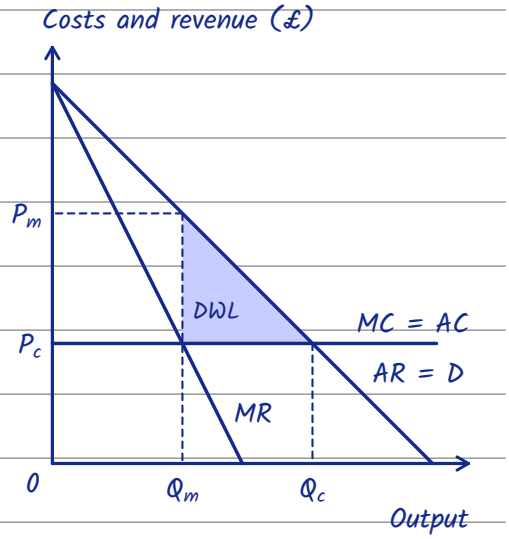


Diagram 2: monopoly v perfect competition



First, the firm is allocatively efficient because P = MC at Q_1: the value consumers place on the last unit (the price) equals the cost of the resources used to make it, so society's welfare is maximised and there is no deadweight loss. This holds in the short run as well as the long run, since the firm always produces where MC = MR = P.

Second, in the long run the firm is productively efficient, producing at the minimum point of its AC curve at Q_1. Free entry and perfect information mean that any firm with higher costs would make a loss and be forced out, so there is strong pressure for X-efficiency: firms cannot afford organisational slack.

Third, consumers pay the lowest possible price. Diagram 2 compares a perfectly competitive industry with a monopoly with the same costs. The competitive industry produces Q_c at price P_c = MC, but a profit-maximising monopolist

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restricts output to Q_m, where MC = MR, and charges P_m. Consumer surplus is much lower under monopoly, part of it is transferred to the firm as supernormal profit, and the shaded triangle is a deadweight welfare loss. Perfectly competitive firms also have no market power to exploit consumers, squeeze suppliers or use anti-competitive practices such as predatory pricing, which protects consumers, small suppliers and workers.

However, perfect competition may be less desirable on other criteria. Its main weakness is dynamic efficiency. Supernormal profits are competed away in the long run and perfect information means any innovation is copied immediately, so firms have neither the funds nor the incentive to invest in research and development. Oligopolies and monopolies earning long-run supernormal profit can reinvest it in new products and processes, as in pharmaceuticals and technology, shifting cost curves down and leading to lower prices and better quality over time. This dynamic efficiency can make firms internationally competitive, raising exports (X > M), employment, wages and tax revenue.

Second, small firms cannot exploit economies of scale. In industries with very high fixed costs, such as water, rail and energy networks, a natural monopoly can produce at a far lower average cost than many small firms, so the price may be lower under monopoly even after a profit mark-up. The comparison in Diagram 2, which assumes identical costs, is then unrealistic.

Third, homogeneous products mean no consumer choice. Monopolistic competition and oligopoly offer differentiated products, and many consumers are happy to pay a higher price for variety, quality and brands. Monopolistic competition keeps many of the benefits of perfect competition, as low barriers to entry remove supernormal profit in the long run, while offering much wider choice, although it has excess capacity and P > MC.

Desirability also depends on the stakeholder. Consumers gain from low prices, but shareholders prefer the supernormal profits available in oligopoly. The government gains more corporation tax from highly profitable large firms, and large firms can offer employees more secure jobs, higher wages and training,

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whereas small firms earning only normal profit are vulnerable to shocks. Finally, perfect competition is a theoretical benchmark: few real markets have perfect information and identical products (some agricultural and currency markets come closest), so it may not be a realistic option.

Overall, perfect competition is the most desirable market structure in terms of static efficiency, because it is the only structure that achieves allocative, productive and X-efficiency together in the long run, maximising consumer surplus. However, it is not the most desirable in every market. It depends on the industry: where economies of scale and innovation matter, such as utilities or pharmaceuticals, a regulated monopoly or oligopoly may deliver lower prices and better products over time. It also depends on the stakeholder: consumers benefit most from perfect competition, while firms, workers and the government may prefer larger firms. The most desirable outcome is often a contestable market, where the threat of entry keeps prices close to cost while still allowing scale and dynamic efficiency.

03 a) Quantitative easing (QE) is an unconventional monetary policy in which the central bank creates new electronic money (central bank reserves) to buy financial assets, mainly government bonds (gilts), from banks, pension funds and insurers. It is an asset purchase scheme used to increase the money supply and reflate the economy when interest rates are already close to zero, as in the UK after 2009 and in 2020, when Bank Rate could not be cut much further.

QE is expected to work through several channels. First, the Bank of England's large purchases raise demand for bonds, driving up bond prices and, because yields move inversely to prices, reducing bond yields. Lower gilt yields feed through into lower long-term interest rates on mortgages and business loans, encouraging consumption (C) and investment (I).

Second, there is a portfolio rebalancing and wealth effect. Sellers of bonds now hold money, which they reinvest in higher-yielding assets such as shares,

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corporate bonds and property. This raises these asset prices and lowers their yields too, so firms can raise funds more cheaply through equity and loans, and households holding the assets feel wealthier and more confident, increasing C. Third, banks receive extra reserves and liquidity, making them more willing to lend to households and firms. As borrowing and spending increase, aggregate demand (AD) rises, and through the multiplier this raises real GDP and employment and puts upward pressure on the price level, helping to return inflation to the 2% target and avoid deflation. Lower yields may also cause an outflow of hot money, depreciating the currency and boosting net exports.

Quantitative tightening (QT) is the opposite of QE. The central bank reduces its stock of bonds, either by actively selling them back to the market or by not reinvesting the money when bonds mature. Buyers pay for the bonds with money, so reserves and the money supply in the market are reduced. QT is used once QE has stabilised the economy and the monetary support is no longer needed, and to reduce the risk of inflation; the Bank of England began QT in 2022.

QT works in reverse: extra bond sales lower bond prices and raise yields, pushing up long-term borrowing costs; asset prices and household wealth fall; and banks have less liquidity to lend. C and I grow more slowly, restraining AD and inflationary pressure.

Before QT, central banks usually taper QE, gradually scaling back the pace of new bond purchases, which slows the growth of the money supply. They prefer to fade out QE first because stopping or reversing it suddenly could cause a sharp rise in yields and an economic shock, so QT is carried out gradually and predictably.

03 b)

Inflation is a sustained increase in the general price level over time, measured in the UK by the CPI, while deflation is a sustained fall in the general price level (not to be confused with disinflation, a falling but positive rate of inflation).

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Both can come from the demand side or the supply side. Demand-pull inflation is caused by AD growing faster than productive capacity, and cost-push inflation by rising costs such as energy prices or wages shifting SRAS to the left. Malign (bad) deflation results from a fall in AD, while benign (good) deflation results from SRAS and LRAS shifting right, for example due to technology and productivity gains.

Diagram A: malign deflation

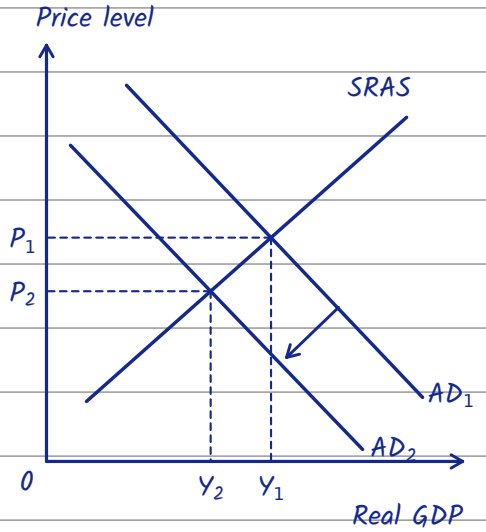
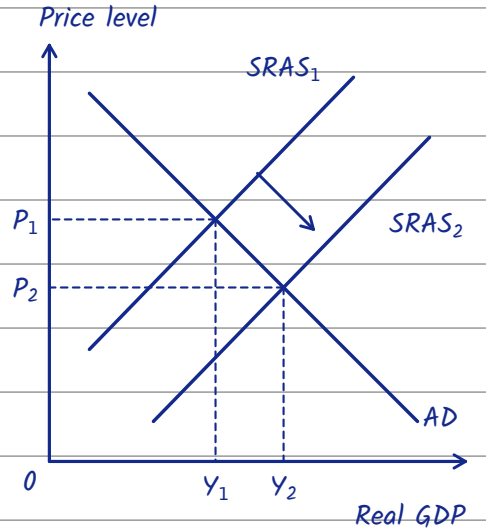


Diagram B: benign deflation



In Diagram A, a fall in AD from AD_1 to AD_2 lowers the price level from P_1 to P_2 and real GDP from Y_1 to Y_2, so malign deflation comes with falling output and rising unemployment. In Diagram B, an increase in SRAS lowers the price level but raises real GDP from Y_1 to Y_2, so benign deflation goes with economic growth.

Inflation has several costs. First, it redistributes income and wealth arbitrarily. People on fixed incomes, such as some pensioners, and low-skilled workers with weak bargaining power see their real incomes fall. Savers lose when real interest rates are negative, while borrowers gain as the real value of their debt falls. Fiscal drag transfers income from households to the government when tax thresholds are frozen, as in the UK when CPI inflation peaked at 11.1% in 2022.

Second, high inflation damages the macroeconomy. Uncertainty about future prices and costs reduces business confidence, so investment and FDI fall,

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harming long-run growth. If UK inflation is higher than that of trading partners, exports become less price competitive and imports more attractive, worsening the current account and putting downward pressure on the exchange rate. The central bank responds by raising interest rates, which slows growth and can raise unemployment; with cost-push inflation this leads to stagflation. There is also a risk of a wage-price spiral, as workers demand higher wages to protect real incomes, raising costs and prices further so that inflationary expectations become embedded.

Third, inflation interferes with the price mechanism: it is hard to tell whether a price rise signals a change in relative demand or just general inflation, so resources are misallocated, and inflation can disguise inefficiency. There are also menu costs of changing prices and shoe leather costs of managing money to avoid losses.

However, deflation, especially malign deflation, can be more harmful. When prices are expected to keep falling, consumers delay purchases of durable goods to buy them more cheaply later. AD falls, so firms' revenues and profits fall, they cut output and lay off workers, and lower incomes reduce spending further: a deflationary spiral causing economic stagnation, lower growth and rising unemployment, as in Japan's lost decades.

Deflation also raises the real burden of debt. Nominal debts stay the same while prices and incomes fall, so indebted households and firms cut spending and save more to repay debt, further depressing AD, and defaults may rise, weakening banks. The real value of the national debt also rises. In addition, nominal wages are sticky downwards, so falling prices raise real wages above the market-clearing level, causing real wage unemployment.

Crucially, deflation can make monetary policy powerless. Nominal interest rates cannot be cut much below zero, so with deflation real interest rates (nominal rate minus inflation) rise, discouraging borrowing exactly when the economy needs a boost. In this liquidity trap the central bank must rely on unconventional tools such as QE. By contrast, inflation can always be reduced

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by raising interest rates, even though this is costly.

The extent to which one is more harmful depends on several factors. First, the cause: moderate demand-pull inflation reflects a growing economy with rising employment, whereas cost-push inflation combines rising prices with falling output. Similarly, benign deflation from productivity gains raises real incomes, although even supply-side deflation risks second-round effects if it creates deflationary expectations. Second, the rate and duration: low and stable inflation of about 2% is desirable, which is why central banks target it rather than zero, as it lets relative prices and real wages adjust and leaves room to cut real interest rates. However, hyperinflation, as in Zimbabwe or Venezuela, destroys the value of money and is far more harmful than mild deflation. Third, whether it is anticipated: if inflation is expected, wages, benefits and interest rates can be index-linked, reducing redistribution. Fourth, the economy and stakeholder: a highly indebted economy or borrower suffers most from deflation, while savers, pensioners and LEDCs with weak central bank credibility suffer most from high inflation.

On balance, deflation is generally more harmful than inflation at similar low rates, because a deflationary spiral is self-reinforcing, increases real debt burdens and is very hard to escape once expectations turn negative, given the zero lower bound on interest rates, whereas moderate inflation can be controlled by raising interest rates and low inflation is actually desirable. However, the judgement is reversed when inflation is high, accelerating or cost-push in nature: double-digit or hyperinflation is more damaging than mild, benign deflation. Inflation is therefore only more harmful than deflation when it is high and persistent.

05 a) Economic development is a broad concept meaning an improvement in living standards and quality of life, not just higher output. Living standards measure the material welfare of citizens, such as their income, health and access to

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goods and services. Other than the HDI, several measures can indicate development.

First, real GNI per capita at purchasing power parity (PPP). GNI is the total income earned by a country's residents, including net income from abroad; dividing by the population gives average income per person, and converting at PPP adjusts for differences in the cost of living, so it shows how many goods and services an average income can actually buy. For example, GNI per capita (PPP) is roughly $3,000 in Uganda compared with about $55,000 in the UK. It is suitable because income determines people's material living standards, such as access to food, housing and services, and the data are widely available and comparable. However, it is an average, so it hides inequality, and it ignores the informal economy and non-material quality of life.

Second, access to health care, such as the number of doctors per 1,000 people. More doctors mean that illness can be treated and mothers and children receive care, which lowers infant mortality and raises life expectancy, and healthier people can work more productively and earn more. The UK has about 3 doctors per 1,000 people compared with under 0.1 in some sub-Saharan African countries. It is suitable because health is a core part of living standards that income measures miss, although it measures an input rather than an outcome and can hide rural and urban differences.

Third, access to education, measured by the proportion of children of primary school age enrolled in school or average class sizes. Higher enrolment and smaller classes show greater human capital, so the future workforce will be more skilled, productive and better paid, and education widens choices and reduces gender inequality. However, enrolment does not show the quality of schooling.

Fourth, access to technology, such as the percentage of households with internet access or mobile phone ownership per person. These show access to information, markets, public services and banking (for example mobile money such as M-Pesa in Kenya), indicating both material living standards and the ability to take part in the modern economy.

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Finally, the economic structure, such as the share of employment in agriculture compared with manufacturing and services. A large share in subsistence agriculture signals low productivity and low incomes, while a shift towards manufacturing and services signals development. Using several indicators together, or the UN Sustainable Development Goals, gives a more rounded picture of living standards than any single measure.

05 b) Economic development means a sustained improvement in living standards and quality of life, including income per head, health, education and freedom, as shown by indicators such as the HDI. Poor governance (institutional weakness) means ineffective decision-making by governments and public bodies, including corruption, maladministration and policy failure (government failure), weak legal and judicial systems and poorly enforced property rights.

Poor governance can be a major obstacle to development. First, weak administrative infrastructure means the government fails to raise revenue from its tax base: tax evasion and a large informal sector mean many LEDCs collect under 15% of GDP in tax, compared with over 30% in many MEDCs. With little revenue, there is under-investment in health, education and infrastructure, so life expectancy, literacy and productivity stay low, directly reducing living standards and the HDI.

Second, corruption means that revenue that is raised is embezzled or spent on vanity projects rather than core services, a large opportunity cost, and resources are allocated to support vested interests rather than where they create most welfare. Systemic bribery raises business costs, excludes low-income groups from basic services such as health care, increasing inequality, and breaks trust between the government and the governed, encouraging more tax avoidance in a vicious circle. Corruption in education, where underpaid teachers sell results, gives students little incentive to learn, so the skills needed for growth are not

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developed.

Third, a weak judicial system and insecure property rights deter domestic investment and FDI, because firms fear that contracts will not be enforced or assets will be seized, and without intellectual property rights there is little incentive to innovate. Lower investment means a slower growth in the capital stock, so LRAS and income per head grow slowly. Poor governance also reduces genuine competition, as politically connected firms are protected, leading to higher prices and lower quality and reducing households' purchasing power. Mismanagement of public finances can create large fiscal deficits and unsustainable national debt, and MEDCs may restrict foreign aid to badly governed countries.

However, LEDCs face other significant obstacles. Low levels of health and education are an obstacle in themselves: in many sub-Saharan countries malaria and HIV/AIDS reduce life expectancy and labour productivity, and low literacy limits the use of new technology. This creates a poverty cycle of low incomes, low savings, low investment in human and physical capital and therefore low incomes. Rapid population growth adds to this, as a high dependency ratio diverts resources to feeding and schooling a growing population, so income per head grows slowly even if GDP rises.

Poor infrastructure, capital and technology, such as unreliable electricity, poor roads and limited ports, raise firms' costs and limit access to world markets, especially for landlocked countries. MEDC trade policies are also an obstacle: tariffs, quotas and subsidies, such as the EU's Common Agricultural Policy, and tariff escalation on processed goods stop LEDCs exporting where they have a comparative advantage and moving up the value chain, leaving them dependent on volatile primary commodities. High public sector debt means a large share of revenue goes on interest rather than public services. Natural resources can also be a curse: dependence on oil or minerals can cause Dutch disease, where a strong currency makes other exports uncompetitive, and volatile commodity prices make government revenue unstable.

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Poor governance is arguably the biggest obstacle because it underlies many of the others. The resource curse is largely a governance problem: Botswana used its diamond revenue, through strong institutions, to fund education and health and became an upper-middle income country, whereas the resource-rich Democratic Republic of Congo, with weak institutions, remains among the poorest countries. Under-spending on health, education and infrastructure is often caused by corruption and weak tax collection, and aid and FDI flow more readily to well-governed countries. Without good governance, other policies such as aid or trade liberalisation are less effective.

However, it depends on the LEDC. LEDCs differ greatly, and some reasonably well-governed countries still struggle because of factors largely outside their control: landlocked countries face high transport costs, small island states are vulnerable to climate change and natural disasters, and MEDC protectionism limits export-led growth whatever the quality of governance. Causation also runs both ways: poverty weakens governance, as low-paid officials are more open to bribery, so better governance may partly require development first. It also depends on how far the government can overcome each obstacle: governance can be improved by domestic reform, with support from bodies such as the World Bank and the SDG target to substantially reduce corruption, whereas MEDC trade policy and geography cannot be changed by the LEDC itself.

Overall, poor governance is the biggest obstacle for most LEDCs, because it is the root cause of low tax revenue, under-investment in health, education and infrastructure and low investment and FDI, and it determines whether natural resources and aid are used productively. However, it is not always the biggest: for some well-governed LEDCs, geography, disease or MEDC trade barriers are more binding, so the most serious obstacle varies between countries, and good governance is a necessary but not sufficient condition for development.