



GCE A LEVEL

A520U20-1



S18-A520U20-1



ECONOMICS – A level component 2
Exploring Economic Behaviour

TUESDAY, 12 JUNE 2018 – AFTERNOON

2 hours 30 minutes

A520U201
01

ADDITIONAL MATERIALS

A calculator.
A WJEC pink 16-page answer booklet.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.
Answer **all** questions.

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 presentation in your answers.

Answer all the questions.

1. Competition regulator backs scrapping of rail franchises.

According to the Competition and Markets Authority (CMA) Britain's rail system should be reformed to allow rival train firms to run services on the same routes. This would mean scrapping the current system of rail franchises (where rail companies bid to provide train services on a particular route over a fixed period of time) for major intercity routes.

- 5 In a recent report the CMA said that more direct competition on routes could lead to lower fares, greater efficiency and more effective use of capacity.

Figure 1 – The rail industry after privatisation:

- After privatisation the state-owned rail network was broken up. Network Rail, which is still state-owned is responsible for maintaining the track system.
- The network is used by both rail franchises and freight operators who pay Network Rail to use the rail network.
- Rail franchises also pay the government for the right to operate a particular route (a franchise).
- The industry as a whole is regulated by the Office of Rail and Road (ORR).

- 10 Franchising involves the Government setting out what it would like a franchise to do over a set period (level of service, upgrades, performance etc.). Companies then compete for the right to operate a franchise to that specification. The Government picks whichever company it thinks will deliver the best overall train service for the route and gives the best value for money. Franchise agreements include details of the performance standards that train operating companies must meet. The Government generally expects franchises to run for 7-10 years.

- 15 After a train operator wins a franchise, critics argue they essentially have a monopoly because they face little competition. In what the CMA described as a "significant departure from the current system", it has recommended that "multiple" train operators be allowed to offer passenger services "in a fully commercial environment" by competing on the same lines. In other words, more than one company would be able to run trains along a particular route.

- 20 The CMA's report says the potential for such competition exists on the three major intercity routes: the East and West Coast Main Lines, and the Great Western route between London Paddington and Cardiff. There are already a few regionally-based examples of this form of competition.

Figure 2 – Rail's share of total transport 1952-2016

25 The chief executive of the CMA, Alex Chisholm, said: “We’ve found that there is strong evidence, both here and abroad, of the benefits that the introduction of competition on mainline intercity routes can bring. The need to attract passengers who have a choice between train operators can mean lower fares, new routes and destinations and more innovations. In a more competitive environment train operators will become more efficient and there will be better use of existing capacity – so there are benefits for both rail users and taxpayers (who help subsidise the railways).”

35 The Rail Delivery Group, which represents train operators and Network Rail, gave a critical response to the proposal. Paul Plummer, its chief executive, said: “We must take a joined-up and consistent approach to competition, freight, franchising, regulation, capacity, the shape of Network Rail and how we fund much-needed investment. Considering these in isolation is unlikely to deliver the best results for rail users or taxpayers.”

Mick Whelan, the general secretary of train drivers’ trade union Aslef, said: “The idea that anything in this report would improve Britain’s rail network is laughable to anyone who works in, and understands, our industry. Breaking up the railway further will only increase costs. Competition in the rail industry is a myth. There is only one set of tracks.”

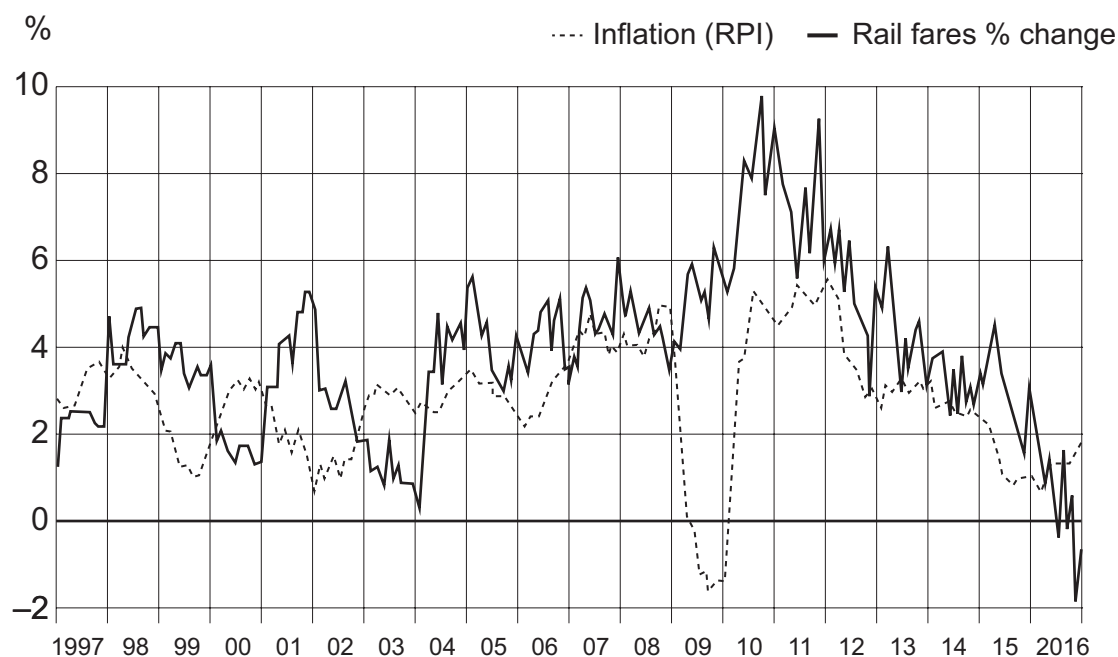
40 Many with a similar view want to renationalise the railways to re-create a single company like the old British Rail which was formed as a result of the nationalisation of the privately owned regional rail companies in 1948.

45 The government has committed billions of pounds to upgrading the railways. However, rather than focusing on more competition in the rail network, the best use of this investment might be to focus on linking the train network to other forms of public transport such as buses and trams. This would help to reduce reliance on the private car and reduce the market failures caused by pollution and congestion.

50

But the consumer group Which? urged the government to listen to the CMA proposals. Its executive director, Richard Lloyd, said: “Our annual rail survey shows that millions of passengers are not satisfied with the service they are receiving on Britain’s railways. But on those lines where there is more competition between train operators, satisfaction is significantly higher. Passengers shouldn’t have to wait until the end of a lengthy franchise for services to be improved.”

Figure 3 – Rail fares versus inflation (% change year on year)



Source: BBC

Adapted Source: The Guardian, 8 March 2016

- What benefits do train operators such as Virgin and First Great Western get from winning a franchise for a certain route on the rail network? [4]
- Using Figure 3, outline what has happened to rail fares in both real and nominal terms over the period shown. [4]
- Using a costs and revenue diagram show how the trend shown in Figure 2 since privatisation would have increased the profits of train operators such as Virgin Trains. [4]
- “The most efficient price for a train operator to set would be price = marginal cost.” How far do you agree with this view? [8]
- With the aid of the data and using economic analysis evaluate the view that the railways should be renationalised. [10]
- Using an appropriate diagram and with reference to the data, evaluate the view that the government should tax the use of private cars more heavily to provide more subsidies for the rail network. [10]

BLANK PAGE

2. IMF Survey: Weakening Growth in Sub-Saharan Africa Calls for Policy Change

- Growth lowest in 15 years, with significant variation across the region
- Severe shocks: weak commodity prices, limited external finance, drought
- Urgent need to change policies to promote growth

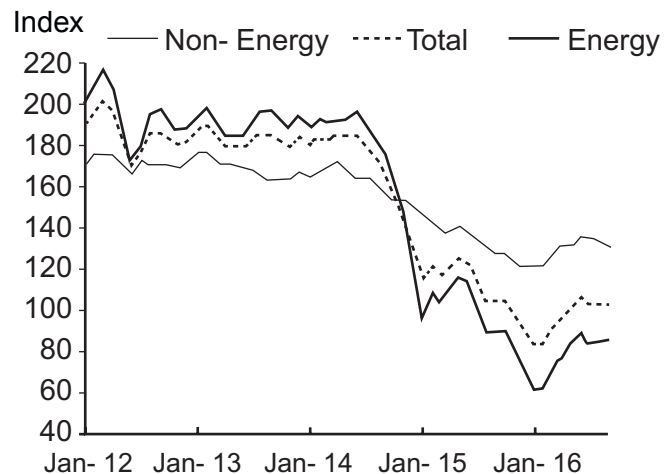
Hit by several shocks

5 The global commodity price slump (Figure 1) has hit many of the largest sub-Saharan African economies hard. While oil prices have recovered somewhat compared to the beginning of 2016, they are still more than 60% below 2013 levels—a huge drop.

10 As a result, oil exporters such as Nigeria and Angola continue to face particularly difficult economic conditions. The decline in other commodity prices has hurt non-energy commodity exporters, such as Ghana, South Africa and Zambia. Making everything worse is the fact that external financing is harder to get and many areas have been hit by drought.

Figure 1

IMF Commodity Price Indices
(2005 = 100)

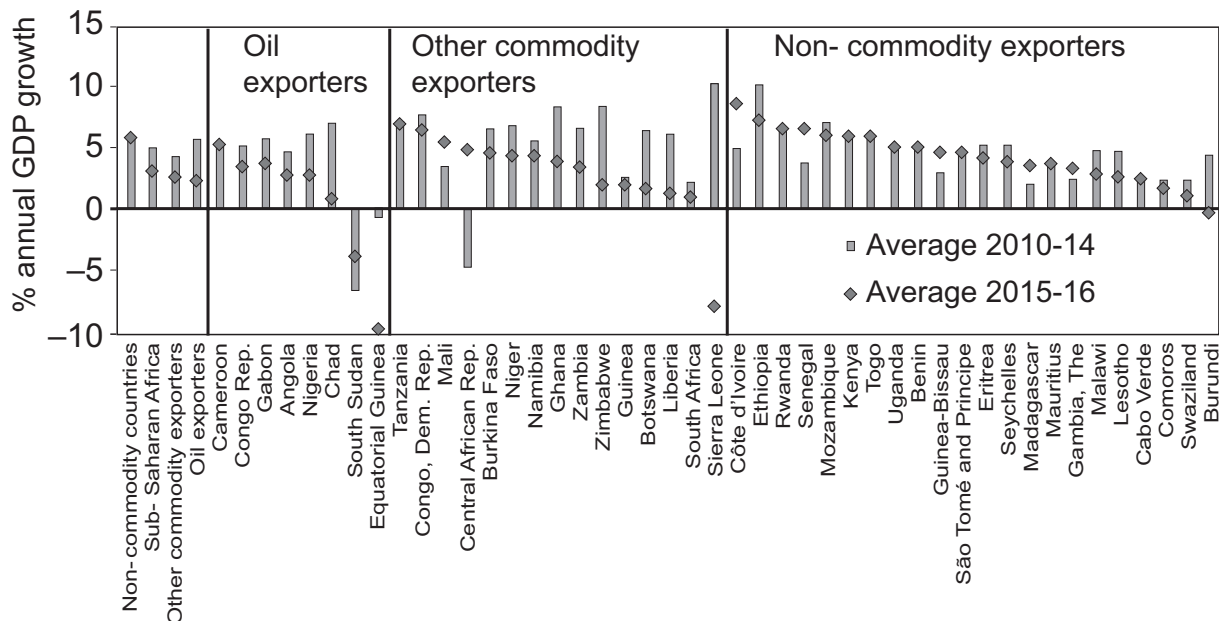


Medium-term prospects still favourable

25 However, the impact of these shocks varies significantly across the region and many countries continue to have strong growth (see Figure 2).

Figure 2

External shocks have hit many sub-Saharan African countries hard, but the impact on growth varies across countries.



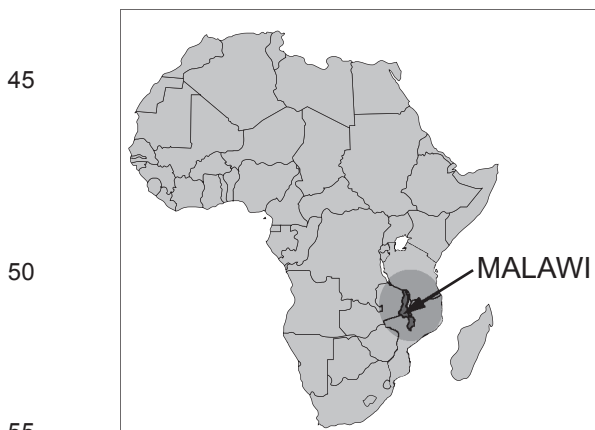
While the immediate outlook for many sub-Saharan African countries remains difficult, the region's medium-term growth prospects are still favourable. The region's much improved business environment and favourable population trends (with a young and growing population) should help to support growth in the medium term.

30 **Policy change urgently needed to promote growth**

The IMF argues that to benefit from this strong potential, however, a substantial policy change is essential in many cases, as the policy response to date has generally been insufficient. Many countries are facing the prospect of both trade deficits and budget/fiscal deficits leading to falling foreign currency reserves and rising debt. In response to this, countries need to use
35 exchange rate flexibility combined with policies to cut fiscal/budget deficits and to build a sustainable tax base outside of the commodities sector.

The required measures may come at the cost of lower growth in the short-term as well as damage to the countries' economic development. However, these measures will prevent what could otherwise be a much worse situation in the longer term if they are not implemented.
40 These policies would lay the base needed for the region to benefit from the substantial economic potential which still lies ahead.

Malawi Economic Outlook (African Development Bank report)



In 2015, hit by weather and policy shocks, Malawi's real GDP growth was 2.9%, down from 5.7% in 2014. Floods and dry periods reduced maize production by 30%, resulting in a 2.3% slowdown in agriculture sector growth.

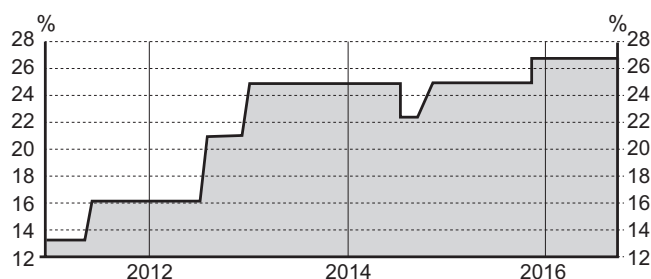
The services sector, particularly information and communication, proved stronger with 9% growth. This was partly driven by rapid expansion in mobile phone services. In 2016, economic growth was forecast to rise to 4%, possibly reaching 4.9% in 2017, with agriculture as the main driving force. The growth outlook was based on favourable weather conditions, macroeconomic stability, consistency in policy implementation and renewed private-sector

confidence. Population growth of 2.8% a year will require consistent economic growth to reduce poverty.

60 Fiscal pressures will require stricter controls on government finances and greater transparency to reduce the mismanagement of government funds. The government has failed to control the budget leading to large budget/fiscal deficits and higher inflation and interest rates. Inflation rose to 24.9 % in December 2015 as food supplies ran low and the Malawi kwacha (MWK) (the domestic currency) depreciated more than expected.

65 Monetary policy was further tightened to contain inflation and to achieve exchange rate stability. Inflation was expected to fall to 18.1% in 2016, remaining above the government's initial 12% target. The sharp fall in the kwacha has been caused by capital outflows and persistent current account deficits. The current account deficit was estimated to be 6% of GDP in 2015 and was expected to remain at that level in 2016 and 2017, reflecting the narrow export base and strong dependence on imports and external aid.

70 Urbanisation in Malawi (whereby people move from rural areas to cities) creates both challenges and opportunities for growth. The country is one of the least urbanised in the region, but the 3.8% urban growth rate is higher than the overall population growth rate of 2.8%. The major challenge is to meet demand for housing and other basic services, despite limited resources. However, urbanisation presents an opportunity if its potential to transform
75 the economy can be fully utilised.

Figure 3**Malawi Interest Rate****Figure 4****£ per Malawian Kwacha (MWK)**

- (a) With reference to Figures 1 and 2, consider how significant the impact of commodity prices has been on sub-Saharan African economic growth in 2015-16. [6]
- (b) With reference to economic theory and using a diagram, explain why primary product prices tend to be very volatile. [6]
- (c) Discuss the extent to which the relationship between Malawian interest rates and the Malawian exchange rate shown in Figures 3 and 4 can be explained by economic theory. [10]
- (d) To what extent might the policies recommended by the IMF in lines 31-41 be beneficial for Malawi's economic development? [10]
- (e) In line 28, the IMF speaks of 'favourable population trends'. To what extent is the Malawian economy likely to benefit from its rapid population growth? [8]

END OF PAPER

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

Question
number

1 (a)

A franchise gives the operator the sole right to run passenger services on a route for 7 to 10 years (line 13), so, as critics argue, it effectively has a monopoly on that route (line 14): rival operators cannot run trains on the same line. With little competition, demand for its services is more price inelastic, so it can charge higher fares than in a competitive or contestable market, for example on peak tickets and season tickets for commuters who have no alternative operator. It also needs to spend less on competing through quality, such as on-board catering or newer trains, keeping costs down. Higher prices and lower costs mean supernormal profit, and the security of a long fixed term makes revenue predictable, so it is easier to plan investment and borrow. Operators may also receive government subsidies, since taxpayers help subsidise the railways (line 29).

1 (b)

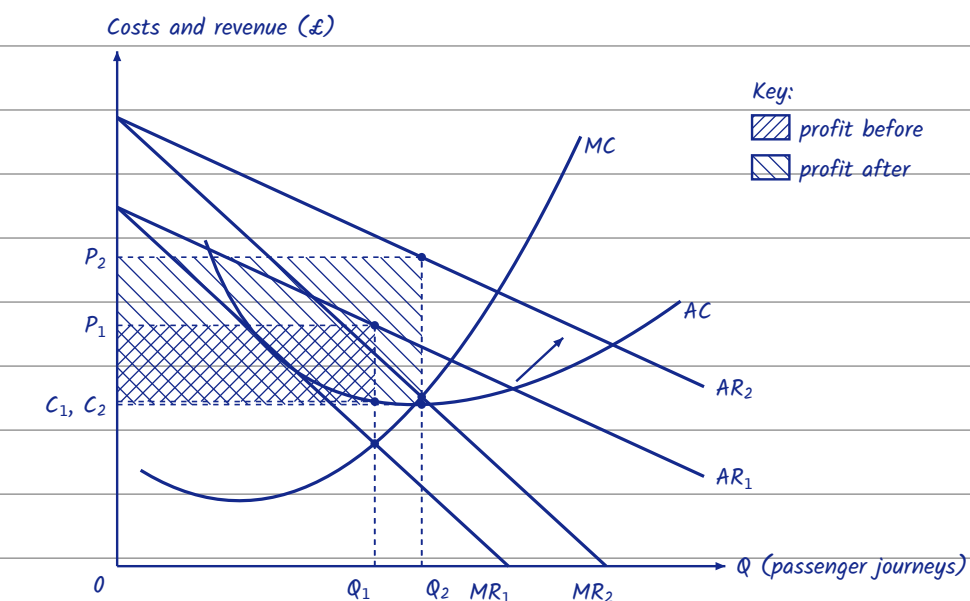
Nominal: Figure 3 shows rail fares rose in money terms in every year from 1997 to 2015, falling only in 2016 (to about -1.8%). Increases were relatively modest between 1997 and 2008, mostly 2% to 5%, and slowed sharply in 2002 to 2003 to under 1%. They then rose very quickly in 2009 to 2012, peaking at almost 10% in 2010 to 2011, and since 2012 they have been rising more slowly, from about 6% down to about 1% to 3%.

Real: fares rise in real terms when their growth is above RPI inflation. In most years fares grew only slightly faster than RPI, so real fares rose a little. The key difference is 2008 to 2011, when fares rose sharply in real terms: in 2009 RPI was negative (about -1.5%) while fares rose about 6%, and in 2010 fares rose about 9% against RPI of about 5%. Fares fell in real terms in 1997, 2000, 2003 (about 1% against RPI of about 3%) and late 2016, when fares fell while RPI

was about 1.8%.

1 (c)

Figure 2 shows that rail's share of total transport fell to a low of about 5% just before privatisation in 1995, but since then it has risen steadily to almost 10% by 2016, nearly doubling. This implies a large increase in demand for train travel. A franchise operator such as Virgin Trains has monopoly power on its route, so its demand (AR) and MR curves shift right from AR_1 and MR_1 to AR_2 and MR_2 .

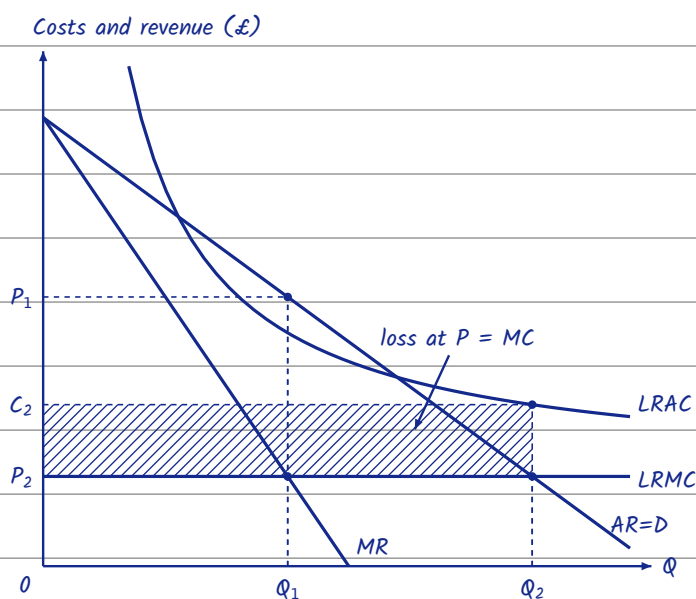


As the diagram shows, the operator maximises profit where $MC = MR$. Before the increase it runs Q_1 journeys at fare P_1 with average cost C_1 , so supernormal profit is $(P_1 - C_1) \times Q_1$. After demand rises it carries Q_2 passengers at a higher fare P_2 . Because rail has high fixed costs, extra passengers fill existing trains and average cost does not rise (here it falls slightly to C_2), so supernormal profit increases to the larger area $(P_2 - C_2) \times Q_2$.

1 (d)

Allocative efficiency occurs where price = marginal cost. Price reflects the value consumers place on the last unit (marginal benefit) and MC is the cost of the resources used to provide it, so at $P = MC$ society's welfare (consumer plus producer surplus) is maximised with no deadweight loss. If a train operator sets $P > MC$, as a franchise monopoly maximising profit at $MC = MR$ does, passengers

value an extra journey more than it costs to provide, so too few journeys are made and there is a welfare loss; if $P < MC$, resources are wasted on journeys valued less than they cost. The MC of an extra passenger on a train that is running anyway is very low, so $P = MC$ would mean much lower fares. This fits the data: fares have risen faster than inflation in most years, by almost 10% in 2010 to 2011 against RPI of about 5% (Figure 3), and millions of passengers are not satisfied (line 50), suggesting fares are well above MC.



However, rail has very high fixed costs (track access charges paid to Network Rail, trains and stations), so average costs fall over a large range of output and it is close to a natural monopoly. As the diagram shows, LRMC is below LRAC, so at $P = MC$ (price P_2 , output Q_2) the operator makes a loss equal to the shaded area, $(C_2 - P_2) \times Q_2$, and could only survive with a large subsidy paid by taxpayers, which has an opportunity cost. $P = MC$ also does not guarantee productive efficiency (minimum AC where $MC = AC$) or dynamic efficiency: with no supernormal profit there are no funds for the new routes, destinations and innovations the CMA values (line 27), and very low peak fares would worsen overcrowding on routes with limited capacity. MC is also hard to measure, and it ignores external benefits of rail; with car use under-priced, the theory of second best suggests $P = MC$ in rail alone may not maximise welfare.

Overall, I agree only partly. $P = MC$ is the allocatively efficient price in theory, but for a train operator it is impractical because of high fixed costs and it sacrifices productive and dynamic efficiency. A regulated price nearer average cost, with off-peak fares close to MC through price discrimination, is likely to be more efficient in practice.

1 (e)

Renationalisation means the government taking the railways back into public ownership and control, ending private franchises, recreating a single company like British Rail, formed in 1948 (line 41). It would be relatively cheap, as Network Rail is already state-owned (Figure 1) and franchises could simply be allowed to lapse at the end of their 7 to 10 year terms.

The main argument for it is that rail is a natural monopoly: there is only one set of tracks (line 39), so competition is a myth and a franchise just hands a private firm a monopoly for up to 10 years. A single state company could exploit economies of scale, such as bulk buying trains and one management structure, lowering long-run average costs, and remove the transaction costs of the fragmented system in Figure 1, where operators pay Network Rail for track access, pay the government for the franchise and are regulated by the ORR.

Aslef argues that breaking the railway up further will only increase costs (line 38). A state-owned firm need not maximise profit at $MC = MR$, so it could set fares nearer MC or AC, important as fares have risen faster than RPI in most years (Figure 3), and it could take account of rail's positive externalities in reducing pollution and congestion (line 46). It would allow the joined-up approach to investment called for by the Rail Delivery Group (line 32) and integration with buses and trams (line 45), and the state can borrow more cheaply to fund the billions needed. Rail is also a strategic industry.

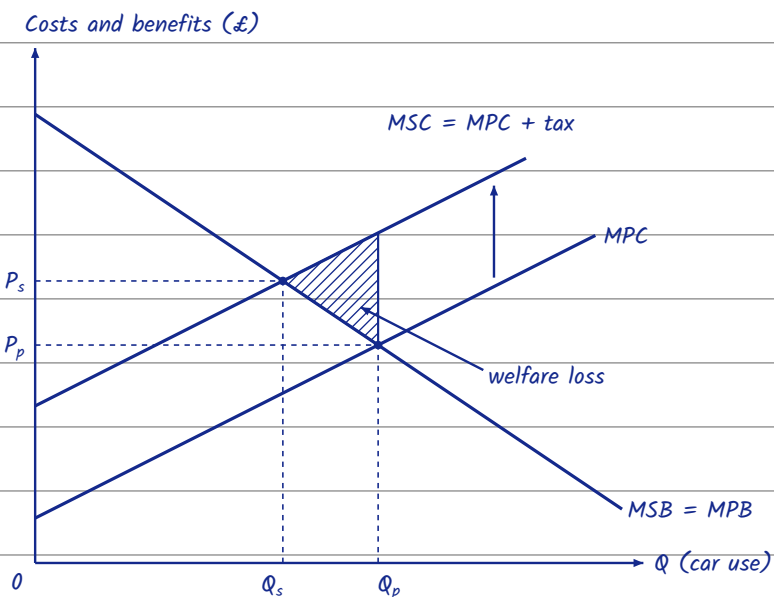
However, public ownership may lead to X-inefficiency and less innovation, as there is no profit motive or threat of takeover or bankruptcy, and decisions may be political, a form of government failure. The record of British Rail was poor: rail's share of transport fell from about 17% in the 1950s to about 5% by

1995, but since privatisation it has nearly doubled to almost 10% (Figure 2), suggesting private operators have attracted passengers, although this may also reflect road congestion and rising incomes. Buying out franchises early would cost taxpayers money at a time of a large fiscal deficit. The CMA argues the better solution is more competition on intercity routes, which could mean lower fares, greater efficiency and better use of capacity (lines 24 to 30), and Which? finds satisfaction is significantly higher where operators compete (line 51).

On balance, it depends on whether genuine competition is possible. On the three major intercity routes there may be room for competing operators, so better regulation and shorter franchises could bring the gains of competition without the costs of nationalisation. On most other routes, however, rail is a natural monopoly and a franchise is simply a private monopoly, so renationalising as franchises expire is a low-cost way to gain economies of scale and integration, provided the state company is set clear efficiency targets to avoid X-inefficiency. I would therefore support gradual renationalisation of non-competitive routes rather than a costly immediate takeover of the whole network.

1 (f)

Car use creates negative externalities: costs to third parties such as pollution, noise and congestion (line 46) that drivers do not pay. Drivers consider only their marginal private cost (MPC), so car use is at Q_p where $MPC = MSB$, but the marginal social cost ($MSC = MPC + \text{external cost}$) is higher.



As the diagram shows, at Q_p $MSC > MSB$, so car use is over-consumed by $Q_p - Q_s$ and the shaded triangle is the welfare loss: a market failure. A tax equal to the marginal external cost, such as higher fuel duty or road tolls, shifts MPC up to MSC, internalising the externality, raising the cost of driving from P_p to P_s and cutting car use to the socially optimal Q_s , removing the welfare loss.

The revenue could be hypothecated to subsidise rail. A subsidy lowers operators' costs, shifting the supply of rail services right, so fares fall and capacity rises; since rail and car travel are substitutes, cheaper and better rail reduces car use further. This is needed: the government must spend billions upgrading the railways (line 43), fares have risen faster than inflation in most years, by about 9% in 2011 against RPI of about 5% (Figure 3), and millions of passengers are dissatisfied (line 50). Rail also generates external benefits, so it is under-consumed, and moving freight from road to rail would cut lorry congestion. However, demand for car travel is price inelastic, especially in the short run and in rural areas with no alternative, so a tax may reduce car use only slightly, raising revenue but doing little to correct the externality. The external cost is hard to measure, so the tax may be set at the wrong level, causing government failure. Fuel taxes are regressive, taking a larger share of income from poorer motorists, and raise firms' transport costs, causing cost-push inflation. Fuel duty also becomes less effective as cars become more fuel efficient or electric, and

high-tech road tolling is costly to set up. Subsidies may not reach passengers: train operators have monopoly power on their franchises, so they may keep the subsidy as profit rather than cutting fares or improving service, and governments cannot always be trusted to hypothecate tax revenue. The network is already under strain, so extra passengers could add to overcrowding unless capacity is increased, which takes years.

Overall, the policy is justified in theory because it corrects two linked market failures. Its success depends on the price elasticity of demand for car travel (it works best in congested cities with good alternatives), on the tax being close to the external cost, and on subsidies being tied to the performance standards in franchise agreements (line 11) so that they lower fares and raise capacity. A moderate tax targeted at congested areas, with revenue linked to rail investment, is the best approach.

2 (a)

Figure 1 shows commodity prices collapsed: the energy index fell from about 200 in mid-2014 to about 62 in January 2016, a fall of about 70%, and the total index fell from about 185 to about 85, more than halving, while non-energy prices fell less, from about 165 to about 125 (about 25%).

For commodity exporters this cuts export earnings, so net exports and AD fall; lower profits reduce investment and lower incomes reduce consumption, with a negative multiplier effect on short-run growth. Governments also lose tax revenue from the commodity sector, forcing cuts to spending on health, education and infrastructure that may damage potential growth. Figure 2 supports a significant impact: oil exporters' average growth fell from about 5.7% in 2010-14 to about 2.3% in 2015-16, and Equatorial Guinea's from about -1% to about -9.7%, whereas non-commodity exporters were unaffected at about 6%, and some, such as Côte d'Ivoire (about 8.5%), grew faster.

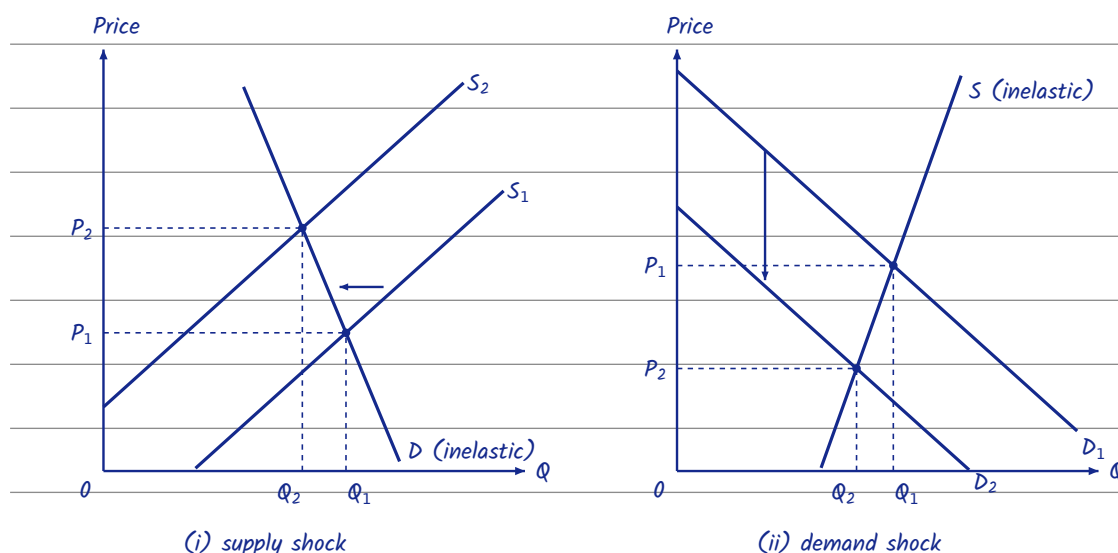
However, the impact varied. Other commodity exporters were hit less, from about 4.3% to 2.7%, as their prices fell less, and many countries still had positive growth: the region's growth fell from about 5% to 3.3%, not into recession.

Other shocks also mattered, such as drought and harder external finance (lines 19 to 22), and Sierra Leone's fall from about 10% to -7.5% owed much to the Ebola epidemic as well as falling iron ore prices. Overall, the impact was significant, but mainly for oil exporters.

2 (b)

Primary products such as oil, copper, cocoa and maize have price inelastic demand and price inelastic supply in the short run, and both demand and supply are hit by frequent shocks, so prices must change by a large proportion to restore equilibrium.

Demand is price inelastic because primary products are necessities or essential raw materials with few substitutes (food, energy), and they are a small share of the final price of manufactured goods. Supply is volatile because of weather, drought, floods and disease (Malawi's maize output fell by 30%, line 46). As diagram (i) shows, a fall in supply from S_1 to S_2 with inelastic demand causes a large rise in price from P_1 to P_2 with only a small fall in quantity from Q_1 to Q_2 .

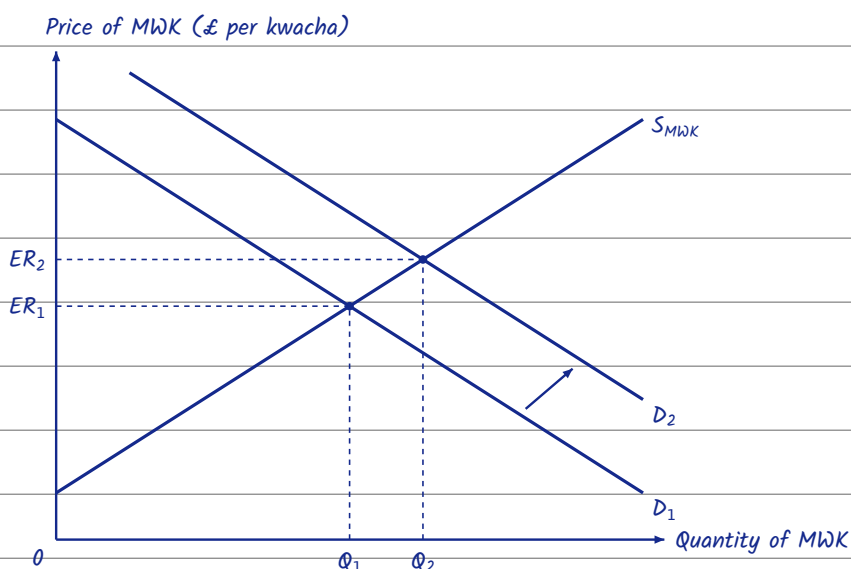


Supply is also price inelastic in the short run because crops take months to grow, trees take years to mature and new mines or oil wells take years to develop, while many products are perishable or costly to store. Demand is volatile because it depends on world growth (a global slowdown cuts demand for metals and oil),

tastes and speculation. As diagram (ii) shows, a fall in demand from D_1 to D_2 with inelastic supply causes a large fall in price from P_1 to P_2 , as in the commodity price slump in Figure 1. Because both curves are steep, small shifts cause large price swings, so primary product prices are very volatile.

2 (c)

Economic theory suggests higher interest rates should cause the exchange rate to appreciate. A rise in Malawi's interest rate relative to rates abroad increases the return on saving in kwacha, so hot money (short-term capital) flows into Malawian banks and bonds. To buy these assets, foreign investors must buy kwacha, increasing demand for the currency, and speculators expecting appreciation add to this demand.



As the diagram shows, demand for kwacha shifts from D_1 to D_2 and the exchange rate rises from ER_1 to ER_2 . Higher rates also reduce consumption and investment, so spending on imports falls, reducing the supply of kwacha, and lower inflation improves competitiveness, so theory predicts a positive relationship. Figures 3 and 4 partly support this. When the rate rose from about 21% to 25% in early 2013, the kwacha recovered from about £0.0016 to about £0.0020 in 2013. In 2014, with the rate held at 25%, the kwacha was stable at about £0.0015; it fell slightly when the rate dipped to about 22.5% in late 2014, and recovered when the rate returned to 25% in 2015.

However, mostly the relationship does not hold. The rate rose from about 13% in 2011 to 16% and then 21% by 2012, yet the kwacha collapsed from about £0.0040 to about £0.0025 in 2012 and kept falling. Over the whole period interest rates roughly doubled to 27%, while the kwacha lost about three-quarters of its value, to about £0.0011 by 2016: a negative correlation. Other factors outweighed interest rates. Inflation reached 24.9% in December 2015 (line 62), so real interest rates were close to zero, giving little real return to attract hot money, and high inflation reduced export competitiveness, cutting demand for kwacha. Persistent current account deficits of about 6% of GDP (line 67), a narrow export base and dependence on imports mean the supply of kwacha exceeds demand. Large budget deficits and mismanagement of funds (line 60) damaged confidence, causing capital outflows (line 66) as investors feared default or further depreciation, so the risk outweighed the higher return. Causation may also run the other way: monetary policy was tightened because the kwacha was falling and inflation rising (line 64). The sharp 2012 fall looks like a one-off devaluation as Malawi allowed its currency to float, which hot money theory cannot explain.

Overall, standard theory explains short-term movements, as in 2013 and 2014 to 2015, when higher rates appear to have slowed the fall. But it cannot explain the long-run trend on its own, which was dominated by inflation, twin deficits and loss of confidence. So theory can explain the relationship only if we look beyond nominal interest rates to real rates, risk and the balance of payments: higher rates probably slowed the depreciation rather than reversing it.

2 (d)

The IMF recommends three policies (lines 31 to 41): greater exchange rate flexibility, cutting budget deficits and building a sustainable tax base outside the commodity sector. Economic development is broader than growth: it means improvements in living standards such as health, education and reduced poverty, measured by the HDI.

Cutting the deficit could benefit Malawi, where the government has failed to

control the budget, leading to large deficits, higher inflation and interest rates (lines 60 to 61). Lower borrowing reduces crowding out, so interest rates (about 27% in 2016, Figure 3) can fall and private investment rise, raising long-run growth and incomes. Lower inflation (24.9% in December 2015) especially helps the poor, whose real incomes are eroded by rising food prices, and greater transparency means spending reaches health and education rather than being mismanaged. Exchange rate flexibility avoids using up scarce reserves to defend an overvalued kwacha; a lower kwacha makes exports cheaper and imports dearer, helping to reduce the current account deficit of 6% of GDP (line 67). A broader tax base, for example taxing the services sector where information and communication grew by 9% (line 49), gives more stable revenue to fund development and reduces reliance on external aid. The IMF admits short-term growth may be lower (line 37), but the policies could avoid a debt crisis and a much worse situation in the long run.

However, the policies may suit Malawi less well. Figure 2 shows Malawi is a non-commodity exporter whose growth fell only from about 4.5% to about 3%, so its problems stem less from commodity prices than from weather shocks (floods and drought cut maize output by 30%) and inflation, which the IMF's policies do not address. Exchange rate flexibility has already happened: the kwacha fell from about £0.0040 in 2012 to £0.0011 in 2016 (Figure 4), but with a narrow export base and dependence on imported fuel, fertiliser and food, demand for exports and imports is price inelastic (the Marshall-Lerner condition may not hold), so depreciation has mainly raised import prices and inflation, hurting the poorest. Cutting the deficit through spending cuts could reduce spending on health, education and infrastructure, directly harming development, when urban growth of 3.8% a year requires investment in housing and basic services (line 73). With population growing at 2.8% a year, lower short-term growth could mean falling GDP per capita and rising poverty. As growth is forecast to recover to 4% to 4.9% (lines 51 to 52), drastic austerity may not be needed.

Overall, the IMF's policies are likely to be only partly beneficial for Malawi's development. Reducing the deficit is appropriate if it comes from cutting waste and widening the tax base rather than cutting health and education, and diversification makes sense given the narrow export base, although Malawi is already developing services. Greater exchange rate flexibility is the least helpful, as it fuels inflation. The benefit depends on how the deficit is cut, on the weather and on the time scale: the long-run gains may come at a high short-run cost for the poor.

2 (e)

Malawi's population is growing at 2.8% a year and its urban population at 3.8% (line 72). The IMF sees a young and growing population as favourable for medium-term growth (line 28).

A growing, young population increases the labour force, so productive capacity grows and LRAS shifts right; young workers are mobile and adaptable, and abundant labour keeps wage costs low, attracting FDI in labour-intensive industries. It also raises AD as demand for goods, housing and services grows, and in the medium term a larger workforce widens the tax base, helping with Malawi's large budget deficits. Urbanisation is an opportunity (line 74): workers move from low-productivity agriculture to higher-productivity industry and services, such as information and communication which grew by 9%, diversifying the economy away from weather-dependent farming.

However, rapid population growth dilutes growth per head: forecast growth of 4% in 2016 implies GDP per capita growth of only about 1.2% ($4 - 2.8$), and in 2015 (2.9% growth) GDP per capita barely rose, making it hard to reduce poverty (line 57). A young population means a high dependency ratio, putting pressure on spending on schools and health while the budget is already in deficit, and if quality falls, human capital will be low. If labour supply grows faster than labour demand, unemployment and underemployment rise. Pressure on land and food is serious when maize output can fall by 30%, and meeting urban demand for housing and basic services with limited resources (line 73) may lead to slums.

Question
number

Large families also reduce household savings, limiting investment.

Overall, Malawi is unlikely to benefit much in the short run, as growth barely exceeds population growth. It could benefit in the medium term, as the IMF suggests, but only if the government invests in education, health and urban infrastructure and growth is consistent enough to create jobs; otherwise rapid population growth will deepen poverty.