

Name:		Index Number:		Class:	
--------------	--	----------------------	--	---------------	--



DUNMAN HIGH SCHOOL
Preliminary Examination
Year 6

ECONOMICS

9732/1

(Higher 2)

21 September 2016

Paper 1

2 hours 15 minutes

Additional Materials:
Writing Papers

READ THESE INSTRUCTIONS FIRST

Answer **all** questions.

Write your name and class on all pieces of work handed in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

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

At the end of the examination, fasten all your work securely into **two** separate bundles (one for Question 1 and one for Question 2).

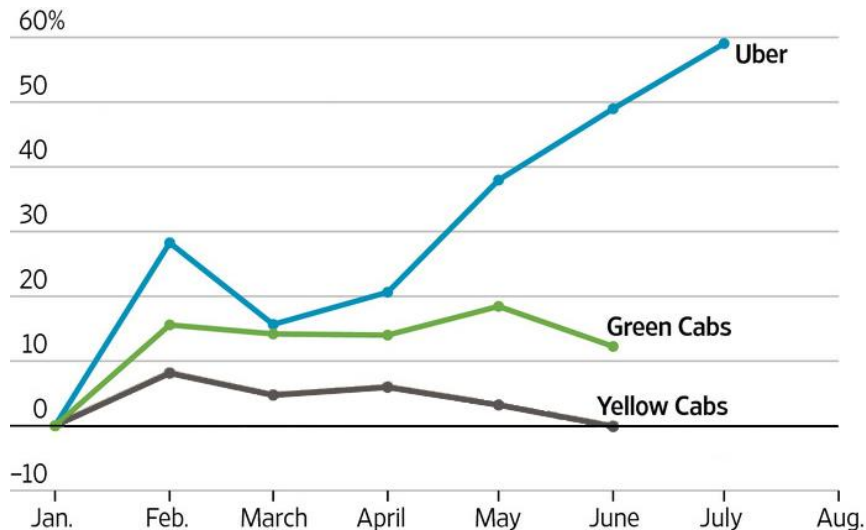
This document consists of **7** printed pages including this cover page.

[Turn over]

Answer **all** questions.

Question 1 Uber's Astounding Rise – Overtaking Taxis

Figure 1: Growth in Uber vs others in New York City, 2015 (Jan – Aug)



Source: www.wsj.com

Extract 1: Uber's Astounding Rise: Overtaking Taxis In Key Markets

It's fascinating to see how market disruption unfolds. Across business travel we have seen the strongest growth on UberX, Uber's lowest cost option. How big is the price differential from taxis?

From Downtown L.A. to Los Angeles International Airport, for example, the fare is about \$22 via UberX versus \$46.50 for taxi fare; a 20 percent tip bumps the cost of that taxi ride to about \$56 (tipping is not customary using Uber).

That said, savings can evaporate at peak times if Uber goes into "surge pricing" mode and fares increase by at least 1.5 times.

Source: Forbes, 10 April 2015

Extract 2: Is Uber's surge pricing fair?

The ride-sharing service Uber has, once again, been getting some bad press coverage over its surge pricing. Uber increased its prices due to a surge in demand.

Whereas policymakers look at their choices through two lenses, one that focuses on efficiency and one that focuses on fairness, businesses tend to have one goal in mind: Will the decision maximise profits? Policymakers figure out whether there's a reason for the government to intervene. The policymaker simply wants to get rid of the market failure in the most efficient way possible.

Would surge pricing qualify as a market failure calling for government intervention?

It depends, which brings fairness into play. Fairness becomes an issue when the policy maker begins to take into consideration who will benefit and who will be hurt by the policy.

When Uber engages in surge pricing, it's simply a response to an imbalance between supply and demand. As Uber explains, when demand suddenly increases, Uber raises the prices for a ride as a way to get more drivers, i.e., supply, on the road. At some point, the invisible hand of the market gets the prices just right so that there are enough Uber drivers to take riders where they want to go.

Source: The Washington Post, 22 December 2014

Extract 3: How to Speak Uber

Back in September of last year, Uber CEO Travis Kalanick claimed that Uber was creating 50,000 new jobs for drivers around the world every month.

When Uber talks about economic impact and putting people to work, it isn't actually talking about traditional employees. Instead Uber is adding contractors, most of whom are part-time. According to the most widely noted measure we use in the U.S., those aren't jobs. So long as Uber drivers are independent contractors, they're on the hook for costs incurred on the job (like gas, parking, and insurance), which seriously cut into the earnings they take home. Independent contractors also lack all sorts of basic protections afforded to traditional employees, such as minimum wage and health and safety standards.

While Uber claims that it's creating tens of thousands of jobs a month, it's actually signing up tens of thousands of independent contractors, roughly 80 percent of whom are working part-time.

Uber says in a statement that while independent contractors are not included in jobs reports, "this doesn't mean that the opportunity to work as an independent contractor is not a meaningful job opportunity. For the hundreds of thousands of driver partners who use the Uber platform and benefit from a flexible schedule, this is a real, tangible opportunity to earn a living."

In a way, what this comes down to is how we define a job. It used to be a job was 40 hours a week at a factory. Now a lot of standard employment is part-time and an awful lot of work is actually contingent, meaning workers don't have steady employment day to day.

Source: Slate, 14 Apr 2015

Extract 4: Strategy unhealthy and unsustainable

The price war as a business strategy is "unhealthy and unsustainable" and will hit private-hire car drivers and cabbies alike, says The National Taxi Association (NTA). It has criticised the recent price cuts by app companies Grab and Uber, saying they not only hit their drivers' earnings but, if left unchecked, could also hurt the taxi industry and, ultimately, commuters.

Taxi firms, which had fares comparable to those of UberX and GrabCar before, are now under pressure. A "price war" would mean both private-hire car drivers and cabbies having to do more trips and driving longer to earn the same amount.

In Singapore, a taxi driver has to rent a taxi from any one of the six taxi operators. The rental rates vary according to the operator and the type of taxi. Meanwhile, Uber drivers can choose to drive their own car or rent a car. To keep rental cost low, companies like Uber and GrabCar have been snapping up used vehicles to grow their rental fleet. The worry is that if private-hire car firms end up dominating the market, they can then start raising prices, and charge a premium.

Currently, cab operators must factor in "compliance costs". These include the bulk of cabbies having to meet certain standards set by the Land Transport Authority, such as covering 250km each day and being on the road during peak hours. Fleets also have to be serviced regularly.

Having said that, traditional cab operators still have a key advantage – they are the only ones allowed to get flagdowns. Still, they face a tough battle. App companies are willing to lose some money now to gain market share, but the incumbents wouldn't want to do this after being profitable for so long.

Source: The Straits Times 24 April 2016

Extract 5: Taxis and Carbon Emissions

The potential entry of electric taxis is a welcome. While taxis account for just 3 per cent of the total vehicle population, they contribute to over 15 per cent of vehicle emissions because of the higher mileage they clock. Emissions from taxis could be reduced by 27 per cent in 2050 if 85 per cent of taxis go electric.

Under the revised Carbon Emissions-Based Vehicle Scheme (CEVS), all new cars and imported used cars with low carbon emissions of less than or equal to 135g carbon emissions per kilometre will qualify for rebates of between \$5,000 and \$30,000, which will be offset against the vehicle's Additional Registration Fee (ARF). Cars with high carbon emissions equal to or more than 186g CO₂/km, will incur a registration surcharge of between \$5,000 and \$30,000. As taxis generally clock higher mileage than cars, the revised CEVS rebate and surcharge for taxis will be higher by 50% to encourage taxi companies to adopt lower carbon emission models for their fleet.

Source: The Straits Times 12 June 2016 and www.lta.gov.sg

Questions

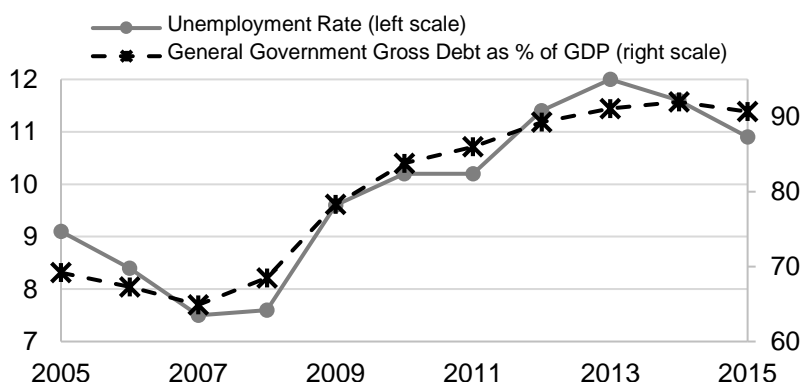
- (a) Describe what happened to the growth in Uber and traditional taxi companies in New York City. [2]
- (b) Explain how Uber's surge pricing strategy is able to solve the long waiting time by the road under the business model of traditional taxi companies. [4]
- (c) Explain the shutdown decision of a taxi firm following the entrance of ride-sharing service, such as Uber and Grab, in Singapore. [6]
- (d) Discuss whether the data provided are sufficient to assess changes in the standard of living in these cities over the period. [8]
- (e) The pollution resulting over usage of vehicles running on carbon-based fuels is an example of a market failure. Explain one policy that might be used to correct the market failure identified, and discuss its likely effect on the market share of Comfort, the largest firm in the "taxi and ride sharing service (such as Uber and Grab) industry" in Singapore. [10]

[Total: 30]

Question 2

The Eurozone Economy

Figure 2: Eurozone Debt and Unemployment



Source: Eurostat, accessed 1 September 2016

Extract 6: The Eurozone economy – frost in spring

The once-sickly Eurozone is undergoing recovery which, though feeble, has nonetheless been sustained. More importantly, there are signs that the pace may be accelerating this year.

A reassuring feature of the recovery is that it is spreading to the once-afflicted countries of southern Europe. Germany, which remains the main engine of growth in the Eurozone, is likely to have expanded strongly in the first quarter of 2014. But the recovery is also being boosted by a return to growth, albeit sluggish, on the part of both Italy and Spain, the third- and fourth-biggest economies in the Eurozone.

Despite these promising developments, there is still a concern that the recovery may have come too late and be too weak to avert the onset of deflation. Consumer prices are falling in several peripheral countries, notably Cyprus and Greece, but also now in Spain. The development has prompted the European Central Bank (ECB) to cut its key interest rate to 0.05%, a new record low.

Adapted from: (i) The Economist, 5 April 2014 and (ii) The Telegraph, 4 September 2014

Table 1: Annual Unit Labour Costs[#], 2010 = 100

Country	2011	2012	2013	2014	2015
Germany	100.7	104.0	106.0	107.9	109.9
Greece	98.7	96.7	89.6	87.3	87.6
Eurozone (19 countries)	100.6	102.5	103.8	104.8	105.5

[#] Unit labour costs measure the average cost of labour per unit of output and are calculated as the ratio of total labour costs to real output.

Table 2: Net trade in goods (value), US\$ converted, seasonally adjusted (in billions)

Country	2010	2011	2012	2013	2014	2015
Germany	195.82	209.71	240.95	259.56	281.94	273.33
Greece	-39.12	-33.87	-27.75	-25.70	-28.29	-19.55
Eurozone (19 countries)	-26.28	-38.21	100.43	198.56	235.99	267.52

Source: OECD.Stat, accessed 20 August 2016

Extract 7: Is Germany's big export surplus a problem?

Germany's trade surplus – the excess in the value of its exports over its imports – hit another record in 2014. At 217 billion euros (\$236 billion), it was Germany's biggest ever. Expressed as a percentage of GDP, Germany's 2014 trade surplus was 7.5 percent.

Why is Germany's trade surplus so large? Undoubtedly, Germany makes good products that foreigners want to buy. For that reason, many point to the trade surplus as a sign of economic success. But other countries make good products without running such large surpluses. There are two more important reasons for Germany's trade surplus.

Some economists point to the euro currency as a key reason for Germany's perennial export surpluses. By sharing the euro with a larger population of mostly less competitive economies, German exporters have a built-in benefit: a currency that's permanently weaker than it should be, though it may be still too strong for less competitive economies. That provides an artificial advantage to German exporters.

Second, the German trade surplus is further increased by policies (tight fiscal policies, for example) that suppress the country's domestic spending, including spending on imports.

In a slow-growing world that is short on aggregate demand, Germany's trade surplus is a problem. Several other members of the Eurozone are in deep recession, with high unemployment and with no "fiscal space" (meaning that their fiscal situations don't allow them to raise spending or cut taxes as a way of stimulating domestic demand). The fact that Germany is selling so much more than it is buying redirects demand from its neighbours (as well as from other countries around the world), reducing output and employment outside Germany at a time at which monetary policy in many countries is reaching its limits.

Sources: (i) Ben Bernanke, Germany's trade surplus is a problem, Brookings Institute, April 3, 2015 and
(ii) Nils Zimmermann, Is Germany's big export surplus a problem?, DW, April 7, 2015

Extract 8: Reconciling fiscal consolidation with growth and equity

Fiscal consolidation is a policy aimed at reducing government deficits and debt accumulation. Fiscal consolidation complicates the task of achieving other policy goals as it weighs on demand in the short term. A number of fiscal consolidation instruments can enhance the long-term level of output by improving efficiency in the economy.

Table 3: Instruments of Consolidation

Expenditure Cuts	Revenue Increases
Public consumption: education	Personal income taxes
Public consumption: health	Corporate income taxes
Cash transfers: unemployment benefits	Environmental taxes
Subsidies	Consumption taxes (non-environmental)
Public investment	Sales of goods and services

Some revenue measures can also contribute positively to long-term output when they promote more efficient use or allocation of services or resources that were previously inadequately priced. To the extent that their current levels correspond to under-pricing, higher user charges reduce the waste of economic resources, thereby boosting productivity and output. Better pricing the use of environmental services through taxation can lead to welfare gains through improved environmental amenities that are not measured in GDP.

If no action is taken, climate change can involve large losses of physical and human capital as well as reduced productivity through more frequent and intense storms, rising sea levels, additional deaths from specific diseases (e.g. malaria) and deteriorating air quality.

Spending reductions can bring about potentially large long-term losses in output when they cut into areas such as public goods or growth-enhancing services that are insufficiently produced by market forces. These include cuts in public investment or government spending on education. Cuts in health care can also reduce output per capita by reducing productivity. Through its contribution to well-being, health spending is most likely to have additional positive welfare effects that are not measured in GDP.

Most fiscal consolidation instruments are harmful for growth in the short run and aggravate income inequality. In fiscal-crisis countries, the absence of consolidation could translate into a massive loss of confidence triggering economic collapse. If it helps to avoid such extreme scenarios, consolidation may be highly expansionary.

Adapted from: OECD Economic Studies, 05 Feb 2014

Questions

- (a) (i) Identify the relationship between unemployment rate and general government debt. [1]
- (ii) How does the above relationship explain the workings of the automatic fiscal stabiliser? [3]
- (b) (i) Using the AE-Income approach, explain the effect of the monetary policy adjustment of the European Central Bank (ECB) on the equilibrium national income of the countries in the Eurozone. [5]
- (ii) Explain why the above policy could be ineffective in averting the onset of deflation in the Eurozone. [2]
- (c) (i) Compare the trends in the annual unit labour costs in Germany and Greece. [1]
- (ii) Discuss the significance of the trends in (c)(i) in accounting for the observed changes in these countries' trade balances. [8]
- (d) In the light of the various challenges that countries in the Eurozone face, assess whether fiscal consolidation should be implemented. [10]

[Total: 30]

End of Paper



DUNMAN HIGH SCHOOL

Prelim Examination 2016

Year 6 H2 Economics 9732 Paper 1
Case Study Questions

Answer and Mark Schemes



DUNMAN HIGH SCHOOL Preliminary Examination 9732 / H2 Economics Paper 1 CSQ Suggested Answer and Mark Scheme

Case Study Q1: Uber's Astounding Rise – Overtaking Taxis

- (a) Describe what happened to the growth in Uber and traditional taxi companies in New York City. [2]

Uber => increasing growth rate

Traditional taxi => decreasing rate / yellow cabs => zero growth

- (b) Explain how Uber's surge pricing strategy is able to solve the long waiting time by the road under the business model of traditional taxi companies. [4]

Either demand / supply analysis OR firm analysis

DD/SS: During peak hour => normal price is 'under-priced' => with surge pricing strategy, it moves towards new equilibrium, solve the long waiting time.

Firm: AR, MR increase during peak hour, P & Q increase => able to reduce the long waiting time

Correct diagram (1m)

Explanation (3m)

- (c) Explain the shutdown decision of a taxi firm to following the entrance of ride-sharing service, such as Uber and Grab, in Singapore. [6]

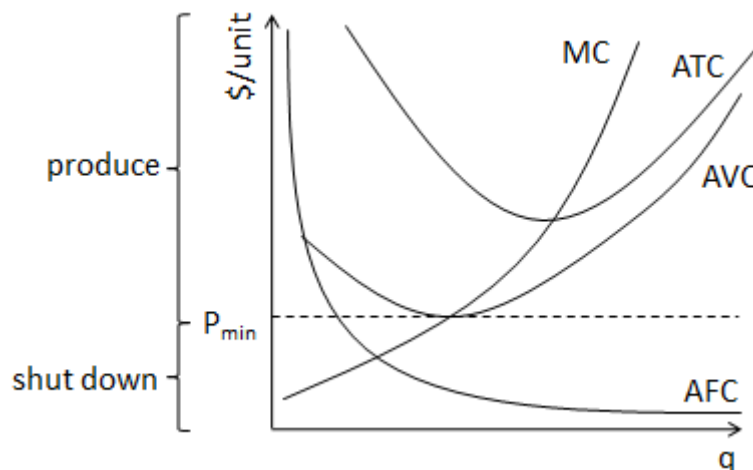
Before the entrance of ride-sharing service => taxi companies are earning supernormal profit

With the entrance of ride-sharing service => AR falls and more price elastic

(might bring in increasing AC => not a requirement but marks will be awarded)

Shut down condition => minimise lose, in the short (4m) and long run (2m)

If a taxi firm decides to produce output, it will select the quantity of output that maximizes its profit (or, if positive profit is not possible, minimises its loss). Its subnormal profit will then be equal to its total revenue minus total cost.



Economists distinguish the short run from the long run among other things, noting that in the short run taxi companies that have decided to enter an industry have already paid their fixed

costs and can't fully exit an industry. For example, over short time horizons, taxi companies are committed to paying a lease on office or buying taxi and must do so regardless of whether or not they rent out the taxi. If the taxi firm decides to shut down and not produce any output, its revenue by definition is zero. Its variable cost (e.g. wages, utilities) of production is also zero by definition, so the firm's total cost of production is equal to its fixed cost. The firm's profit, therefore, is equal to zero minus total fixed cost.

The taxi firm will want to produce if the price it receives for its output is at least as large as its average variable cost of production at the profit-maximising quantity of output, as shown above. This is simply the result of the fact that marginal cost intersects average variable cost at average variable cost's minimum.

The observation that a firm will produce in the short run if it receives a price for its output that is at least as large as the minimum average variable cost it can achieve is known as the *shut-down condition*.

Long run => TR must cover TC. In the long run, all factors of production are variable, it is better to earn nothing than to incur losses, which is in line with producers' profit maximising rationale.

Diagram is not required for this question

(d) Discuss whether the data provided are sufficient to assess changes in the standard of living in these cities over the period. [8]

Define SOL => both material and non-material aspects

Assess changes => likely to be an increase in SOL in New York, LA and Singapore due to the entrance of the new ride-sharing service, assuming ceteris paribus in other economic indicators

Thesis: data provided are sufficient:

- Fig 1 & Extract 1: Increase demand for taxi & ride-sharing service => imply an increase in income level => improvement material SOL
- Extract 3 & 4: New form of employment opportunities in US and Singapore; "tangible opportunity to earn a living" => link to material and non-SOL (such as lower stress level)
- From consumers' view point => cheaper and easier to travel around compare to the past

Anti-thesis: data provided are not sufficient

- No data on the change in the income level, income distribution etc
- With more cars on the road, will negative externality might increase

Conclusion & evaluation

Marks Scheme:

L3 (6 – 7)	- Sufficient depth/ scope - Apt reference to case evidence
L2 (4 – 5)	- Balanced answer - Insufficient depth/scope, only refer to one city - Some application to context/case
L1 (1 – 3)	- One-sided answer - No application to context/case
EV (1m)	- Evaluative assessment supported by economic analysis

- (e) The pollution resulting over usage of vehicles running on carbon-based fuels is an example of a market failure. Explain one policy that might be used to correct the market failure identified, and discuss its likely effect on the market share of Comfort, the largest firm in the “taxi and ride sharing service (such as Uber and Grab) industry” in Singapore. [10]

1st part: Over-usage of vehicles running on carbon-based fuels – negative externalities => explain with a diagram why this will result in a deadweight loss to the society

Government Intervention:

From extract 5: Carbon Emissions-Based Vehicle Scheme (CEVS), all new cars and imported used cars with low carbon emissions of less than or equal to 135g carbon emissions per kilometre will qualify for rebates of between \$5,000 and \$30,000, which will be offset against the vehicle’s Additional Registration Fee (ARF). As taxis generally clock higher mileage than cars, the revised CEVS rebate and surcharge for taxis will be higher by 50% to encourage taxi companies **to adopt lower carbon emission models** for their fleet.

How will this reduce the MEC=> how to reach the optimal output, so as to eliminate DWL

2nd part: Economic Framework: imperfect market structure

Thesis: Increase the market share of Comfort

- Other smaller firms, without the financial resources, might not be able to compete => need to purchase new cars that meet the new requirement.
- AR increases, and less price elastic, AC & MC increase => show output increase

Anti-thesis: Market share of Comfort might not increase

- The ride sharing service => need not purchase new cars. Extract 4: Uber and Grab drivers can choose to drive their own car or rent a car. Thus to meet the new requirement, these ride sharing companies need not spend such a large amount as compared to Comfort.
- Due to the increase competition, Comfort’s AR might fall => especially with fierce price competition => output falls

Evaluation & Conclusion

Will government intervene? What are the other new policies?

L3 (6 – 8)	<ul style="list-style-type: none"> - Clear use of economics framework - Sufficient depth/ scope <ul style="list-style-type: none"> o Clear explanation of the type of market failure o Clear explanation of the policy o Balanced discussion on Comfort’s market share due to the new policy implemented - Apt reference to case evidence
L2 (4 – 5)	<ul style="list-style-type: none"> - Clear explanation of how the policy works and its effectiveness - Insufficient depth/scope - Some application to context/case - Max 4m without a balanced answer on the changes in Comfort’s market share.
L1 (1 – 3)	<ul style="list-style-type: none"> - Lack economics framework in analysis especially in explanation of the type of market failure and the working of the policy - Conceptual error in the explanation for changes in Comfort market share in ‘this’ industry - No application to context/case
EV (1m)	- Unexplained assessment made, merely stating synthesis
EV (2m)	- Evaluative assessment supported by economic analysis, i.e. suggestion of alternative policies and the need for them.

Case Study Q2: The Eurozone Economy

(a) (i) Identify the relationship between unemployment rate and general government debt. [1]

- Direct or positive relationship [1]
- As unemployment rose, general govt debt rose as well [1] or [0]?
- No marks given for directly proportionate or linear relationship

(ii) How does the above relationship explain the workings of the automatic fiscal stabiliser? [3]

- Automatic fiscal stabilisers are inherent features of the fiscal policy built into an economic system that automatically work to dampen fluctuations brought about by the business cycle. No direct government intervention nor explicit policy action is needed on the part of the government, via the progressive personal income tax structure and transfer payments.
- As the unemployment level in Eurozone \uparrow (2008 – 2014), more workers faced \downarrow factor incomes. More households' incomes end up falling below a minimum level, which qualifies them to receive unemployment benefits and/or some form of transfer payments from the govt $\rightarrow \uparrow$ in govt spending.
- Simultaneously, due to progressive income tax \Rightarrow households' nominal incomes fall to a low income tax bracket, thus they pay a lower % of income tax now $\rightarrow \downarrow$ govt tax revenue.
- More govt transfer payments and lower income tax paid due to \uparrow UN $\rightarrow \uparrow$ in govt debt \rightarrow exhibits direct relationship. Also, this leads to a smaller \downarrow in disposable income, and hence income-induced consumption \downarrow by a smaller extent \rightarrow moderates the contraction in AD and actual EG, thereby stabilising the economy.
- The converse holds true when the economy faced \downarrow unemployment rate (2005 – 2008) and \downarrow govt debt (exhibits direct relationship), where the automatic fiscal stabiliser works to dampen AD to prevent overheating of the economy.

(b) (i) Using the AE-Income approach, explain the effect of the monetary policy adjustment of the European Central Bank (ECB) on the equilibrium national income of the countries in the Eurozone. [5]

From Ext 6, ECB cut its interest rate to 0.05%. As i/r falls, this reduces:

- cost of borrowing relative to expected ROR on $I \rightarrow$ incentivises firms to $\uparrow I$ level
- cost of borrowing for big-ticket items $\rightarrow \uparrow C$ of domestically produced g&s
- opportunity cost of using savings for consumption $\rightarrow \uparrow C$ of domestically produced g&s
- $\uparrow C$ and $\uparrow I \rightarrow \uparrow$ autonomous AE

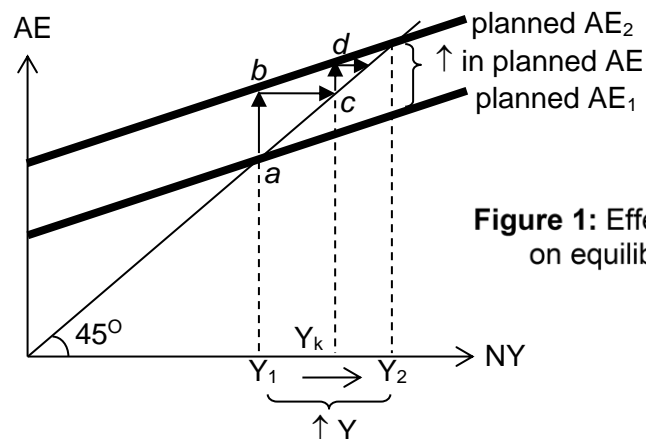


Figure 1: Effect of \uparrow in AE on equilibrium NY

- Referring to Figure 1, as autonomous AE \uparrow , at the initial level of NY Y_1 , $AE > Y_1$ creating a shortage 'ab', causing firms to deplete inventories (unplanned disinvestment). This induces

- firms to step up production in the next production cycle, leading to \uparrow employment of workers, who receive factor incomes. As $NY \uparrow$ to Y_k , more domestically produced goods & services will be consumed (\uparrow income-induced C), causing planned AE to \uparrow .
- Since households will not spend all of their \uparrow in income, choosing to save some of it, having to pay taxes and spend some on imports (collectively known as withdrawals), the \uparrow in planned AE (due to \uparrow income-induced C) is less than the \uparrow in NY . At Y_k , planned AE is cY_k while NY is cY_k , a shortage of cd continues to exist.
 - Thus, firms continue to expand production $\rightarrow \uparrow NY$ further. This is the multiplier effect and the cycle repeats itself until initial \uparrow in AE = total \uparrow in withdrawals OR until Y_2 is reached where $NY =$ planned AE , i.e. firms' output exactly matches the planned AE leaving neither shortages nor surpluses and hence no further adjustment pressure.
 - In total, the \uparrow in equilibrium level of NY to Y_2 will be $>$ initial $\uparrow AE$ (AE_1 to AE_2).

(ii) Explain why the above policy could be ineffective in averting the onset of deflation in the Eurozone. [2]

From Ext 6, the recovery may have come too late and be too weak. In addition, there is high and rising general govt gross debt as % of GDP over the years (Fig 2). [1] Thus, there is still weak economic sentiments / poor consumer and investor confidence in the Eurozone. Hence, the cut in i/r may still bring about an insignificant \uparrow in C and $I \rightarrow$ ineffective in raising AD to avert the onset of deflation (i.e. AD still falls, causing deflation to occur). [1]

(c) (i) Compare the trends in the annual unit labour costs in Germany and Greece. [1]

In general, from Table 1, annual unit labour costs rose in Germany but fell in Greece.

(ii) Discuss the significance of the trends in (c)(i) in accounting for the observed changes in these countries' trade balances. [8]

Thesis: changes in annual unit labour costs of Germany and Greece are significant in affecting trade balances of Germany and Greece

By economic theory, there should be an inverse relationship between changes in annual unit labour costs and the corresponding effect on trade balance.

- $\uparrow (\downarrow)$ in unit labour costs $\rightarrow \downarrow (\uparrow)$ profit margins of firms in Germany (Greece) \rightarrow partially pass on the \uparrow unit COP / cost savings as $\uparrow (\downarrow)$ prices to consumers respectively. Assuming trading partners' unit labour costs remain unchanged, $\uparrow (\downarrow)$ price of Germany's (Greece's) exports relative to trading partners
- Price of domestically produced goods in Germany (Greece) also $\uparrow (\downarrow)$ relative to imports
- Assume demand for exports is price elastic and demand between domestic goods and imports is cross-price elastic \rightarrow more than proportionate $\downarrow (\uparrow)$ in quantity demanded for Germany's (Greece's) exports and more than proportionate $\uparrow (\downarrow)$ in demand for imports into Germany (Greece) $\rightarrow \downarrow (\uparrow)$ in export revenue and $\uparrow (\downarrow)$ in import expenditure in Germany (Greece) \rightarrow trade balance worsens (improves) for Germany (Greece)
- Table 2 generally supports this economic theory for the case of Greece, where its annual unit labour costs fell and trade balance improved over the years, except 2014 and 2015.

However, from Table 2, trade balance has also improved in Germany, despite a rise in annual unit labour costs \rightarrow could be due to reasons as follows:

AT: changes in annual unit labour costs of Germany and Greece are insignificant in affecting trade balance of Germany and Greece

AT1: there are **other factors that affect firms' unit COP** apart from labour costs

- Annual unit labour costs only accounts for part of firms' unit COP → rental costs could have ↓ by a greater extent than ↑ in annual unit labour costs → ↓ in firms' unit COP to cause an improvement in trade balance in Germany
- If firms in Germany engage in process innovation that bring about ↑ productivity by a large extent such that firms' unit COP ↓ despite annual unit labour costs ↑ → improvement in trade balance in Germany
- Above analyses could also apply to the case of Greece

AT2: annual unit labour costs only affect price competitiveness of goods, but fail to consider **non-price competitiveness** of goods that also affects trade balance

- If firms in Germany engage in product innovation, as seen from 'Germany makes good products that foreigners want to buy' in Ext 7 → **new products** created and/or **quality improvements** of products via such R&D → caters to consumers' tastes and preferences → ↑ DD for Germany's exports by foreigners and ↓ DD for imports by Germans as consumers switch towards Germany's goods → Germany's trade balance improves

AT3: apart from annual labour costs, there are **other factors that affect trade balance**

- From Ext 7, a **shared euro currency** that is permanently weaker than it should be provides an artificial advantage to German exporters → Germany's perennial X surpluses
- From Ext 7, implementation of '**tight fiscal policies**' → ↓ AD → fall in NY → ↓ purchasing power → 'suppress the country's domestic spending, including spending on imports' → Germany's trade balance improves, ceteris paribus.
- Insufficient data – only reflects annual unit labour costs of Germany and Greece, but they have trading partners beyond what is shown in Table 2 → annual unit labour costs could have risen by a greater extent in **other countries** → trade balance of Germany and Greece improve as well

Evaluation: whether changes in annual unit labour costs are significant in affecting trade balance depends on:

- (a) how labour intensive the production process of the goods is → in turn affects how much labour costs take up as a proportion of firms' unit COP
- (b) how far other factors change at the same time, which if significant, can outweigh changes in annual unit labour costs, in turn affecting trade balance

L3 (6 – 7)	<ul style="list-style-type: none"> - Balanced approach, with sufficient breadth and depth → must cover the two <ul style="list-style-type: none"> o Countries → Germany and Greece o Components of trade balance → export revenue and import expenditure - Good reference to case evidence.
L2 (4 – 5)	<ul style="list-style-type: none"> - Balanced answer. - Insufficient depth or scope → only covers 1 country and/or 1 aspect of BOT - Some reference to case evidence.
L1 (1 – 3)	<ul style="list-style-type: none"> - One-sided answer that is largely descriptive and/or contains substantial conceptual flaws - No reference to case evidence at all → theoretical arguments only
EV (1m)	<ul style="list-style-type: none"> - Reasoned judgement as to whether changes in annual unit labour costs are significant in affecting trade balance.

- (d) In the light of the various challenges that countries in the Eurozone face, assess whether fiscal consolidation should be implemented. [10]

From Ext 8, fiscal consolidation is a policy aimed at reducing government deficits and debt accumulation → likely to be austerity → contractionary fiscal policy (F/P) of govt expenditure cuts and tax increases as seen from Table 3

Challenges that countries in the Eurozone face:

- Fig 2: generally moderately high and rising unemployment rate (although it fell slightly after 2013) as well as high and rising general govt gross debt as a % of GDP
- Ext 6: consumer prices are falling in several peripheral countries → onset of deflation as recovery came too late and too weak
- Ext 7: several other Eurozone members are in deep recession, with high unemployment and with no “fiscal space”

Thesis: fiscal consolidation should be implemented as it can help to address the various challenges that countries in the Eurozone face

T1: fiscal consolidation helps to restore confidence, thus stimulating EG, reducing UN and govt debt + prevent onset of deflation → addresses various challenges in the **medium term**

- From Ext 8, fiscal consolidation is necessary in fiscal-crisis countries (which is the case for many countries in Eurozone), as it can help to avoid a massive loss of confidence triggering economic collapse, which may thus be highly expansionary on the economy in the medium-term.
- Such contractionary F/P → ↓ govt deficit and debt to more sustainable levels → in the medium term, restores investors' and consumers' confidence as govt is able to control its debt level. In contrast, high unsustainable govt debt level → firms and HHs may expect austerity measures in future to repay debt → withhold current investment and spending.
- Thus, in the medium term, fiscal consolidation helps ↑ AD → ↑ actual EG and ↓ demand-deficient UN via k effect. With ↓ UN → ↓ govt debt as explained in (a)(ii).
- Also, ↑ AD → ↑ competition for FOPs as derived DD for FOPs ↑ → pass on ↑ unit COP as ↑ prices → demand pull inflation.
- <Explain the above arguments with the use of AD/AS graph>

T2: fiscal consolidation helps to address challenges in the **longer term**

- Furthermore, in the longer term, as I ↑ → AS ↑ due to greater capital accumulation due to ↑ quantity and quality of resources → potential EG
- From Ext 8, fiscal consolidation can enhance the long-term level of output by ↓ wastage of economic resources via environmental taxes and/or cut subsidies → firms' COP ↑ → firms' profits ↓ → existing firms have to ↓ X-inefficiency and boost productivity levels to maintain profit margins → ↑ productive capacity when these firms engage in R&D and/or training of workers → potential EG
- Also, inefficient firms that continue to earn subnormal profit due to environmental taxes and/or lack of subsidies exit the industry → frees up resources that can be utilised for more productive uses, e.g. R&D, training → boosts productivity and output → potential EG
- Cuts in UN benefits and transfer payments to households → ↑ incentive to work harder and → ↑ productivity → ↑ competitiveness and thus stimulate EG into the long term
- As the countries in Eurozone attain potential EG → sustained economic recovery and can further ↓ govt debt → address various challenges into the longer term

EV: difficult to find any strong evidence of the direct correlation between investors' + consumers' confidence levels and govt debt levels. Their confidence levels may be based on more immediate factors, like short-term EG rates, real wages etc. than govt debt levels.

AT: fiscal consolidation should not be implemented due to the detrimental impact on the various challenges that countries in the Eurozone face

AT1: fiscal consolidation worsens EG, ↑ UN and exacerbates govt debt as % of GDP + hastens the problem of deflation in the **short term**

- From Ext 8, 'most fiscal consolidation instruments are harmful for growth in the short run as it weighs on demand in the short term' → contractionary effects on the economy
 - <Explain how fiscal consolidation brings about contractionary effects> ↓ G expenditure on infrastructure e.g. schools and hospitals and ↓ public investment → ↓ AD
 - ↓ govt spending on UN benefits → ↓ disposable income → ↓ consumption → ↓ AD
 - ↑ personal income taxes → ↓ disposable income → ↓ consumption → ↓ AD
 - ↑ corporate income taxes → ↓ post-tax profits → disincentive to invest → ↓ I → ↓ AD
 - ↑ environmental taxes → ↑ firms' COP → ↓ firms' profits → ↓ I → ↓ AD
 - With the ↓ AD → ↓ actual EG and ↑ demand-deficient UN via k effect. With ↑ UN → ↑ govt debt as explained in (a)(ii). Also, ↓ AD → ↓ competition for FOPs → ↓ prices → speeds up pace of deflation that has already occurred in Cyprus, Greece and Spain

AT2: fiscal consolidation may aggravate challenges into the **longer term**

- If the govt cuts spending and/or raises taxes in the wrong areas such as 'public goods or growth-enhancing services that are insufficiently produced by market forces' → can undermine long-term growth
 - Cuts in essential health care services e.g. ↓ vaccination services → ↓ productivity as workforce fall sick more easily → ↓ output per capita and slowdown in growth of productive capacity as quality of resources ↓ → undermine potential EG
 - ↓ G expenditure on education → ↓ workforce productivity → undermine potential EG
 - ↑ personal income tax → disincentive to work harder especially for higher income workers → ↓ workforce productivity → undermine potential EG
 - ↑ corporate income taxes → ↓ I → hinders potential EG due to ↓ capital accumulation
- As the countries in Eurozone experience slower potential EG → 'potentially large long-term losses in output' → aggravate challenges into the longer term

Evaluation: whether fiscal consolidation should be implemented depends on:

- (a) how fiscal consolidation is being carried out, i.e. the specific areas / aspects that the govt cuts spending and raises taxes on → e.g. cuts in UN benefits, transfer payments to households and cuts in firms' subsidies → stimulate EG into the long term → address challenges. However, cuts in healthcare, education → undermine potential EG → worsen challenges.
- (b) timing of the fiscal consolidation plans, which in turn depends on prevailing economic conditions of the economy → fiscal consolidation implemented on countries that are performing relatively worse than counterparts, i.e. with more economic challenges of deeper severity may end up being detrimental and self-defeating, since the austerity measures are likely to further worsen the gloomy economic outlook / impede the feeble recovery of Eurozone (Ext 6) → ↓ govt tax revenue and ↑ govt spending on UN benefits and transfer payments → fail to achieve aim of fiscal consolidation and worsen economic challenges that Eurozone are currently facing. The best way is to aim for actual EG in the short term, but in the long-term review govt spending commitments and ↓ govt debt as % of GDP to sustainable levels.
- (c) magnitude of govt debt as % of GDP → for countries with debt of unsustainable levels, it is much more difficult to ↓ govt debt and likely takes a much longer time as well as a combination of policies / multi-pronged approach to contain govt debt to sustainable level, so as to restore investors' and consumers' confidence → address challenges.

L3 (7 – 8)	<ul style="list-style-type: none"> - Balanced approach, with sufficient breadth and depth <ul style="list-style-type: none"> o Clear identification of the various challenges that countries in the Eurozone face o Clear discussion of how fiscal consolidation helps to address and worsen challenges → covered all 3 challenges (moderately high and ↑ UN, ↑ general govt gross debt as a % of GDP and deflation) - Rigorous economic analysis with the use of economics framework. - Good reference to case evidence.
L2 (4 – 6)	<ul style="list-style-type: none"> - Balanced answer. - Insufficient breadth or depth → covers only 2 challenges or uses economic framework but lacks rigour in explanation - Some reference to case evidence.
L1 (1 – 3)	<ul style="list-style-type: none"> - One-sided answer that is largely descriptive and/or contains substantial conceptual flaws. - Insufficient breadth and depth. - Lacks economics framework in analysis. - No reference to case evidence at all → theoretical arguments only
EV (1m)	- Unexplained judgement as to whether fiscal consolidation should be implemented.
EV (2m)	- Reasoned judgement as to whether fiscal consolidation should be implemented, supported by economic analysis.