

## November 2017 subject reports

### Economics

#### Overall grade boundaries

##### Higher level

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 13	14 - 27	28 - 38	39 - 51	52 - 62	63 - 75	76 - 100

##### Standard level

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 13	14 - 26	27 - 36	37 - 49	50 - 62	63 - 74	75 - 100

## Higher and standard level internal assessment

### Component grade boundaries

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 6	7 - 12	13 - 20	21 - 26	27 - 31	32 - 37	38 - 45

### General comments

This was the second November session with e-marking and although procedures are fairly straightforward, it will probably take a few more sessions before all centres, teachers and moderators are comfortable. Assessing online is good but there are still a few things that could be improved upon.

Quite a few centres did not upload the articles used by the students for the IA, but just gave the URL link. This is not acceptable as it means that the moderator has to find the articles in order to assess the commentaries. Students also lose one mark under Criterion F for doing this.

The three commentaries were sometimes uploaded in a different order to that written on the 3/CSE form and the order in which marks awarded by the teachers were given. This made it difficult for the moderator to match the marks given by the teacher for each commentary.

Some centres still included individual and summary cover sheets, which are not necessary. The 3/CSE form has replaced these, and sometimes it was incorrectly filled in.

A few commentaries were very difficult to read and/or diagrams were not legible or missing, when obviously they had been drawn by the student as they were referred to in the commentary.

Many teachers did not give reasons or comments as to why they awarded marks. However, there were noticeable signs that many centres do now apply the assessment criteria appropriately. The majority of the candidates had written three commentaries and adhered to most of the rubric requirements. However, there were a few schools that were very generous and had not fully applied these.

### The range and suitability of the work submitted

There were still some candidates' portfolios which did not include a summary portfolio coversheet with details of source, dates of articles and commentaries, syllabus sections and word counts. From May 2017 onwards, the 'commentary coversheet' and 'summary portfolio coversheet' weren't required. These forms were replaced by the 3/CSE form, one of which is required for each candidate. The 3/CSE form is available on the online curriculum centre (2017—Forms and cover sheets).

The maximum time lapse between the source article and the written commentary is one calendar year. The maximum word count is 750 words but there is no minimum word count. If a commentary is longer than 750 words the moderator will stop reading at 750 words so the candidate could lose marks from their analysis and evaluation if this happened after 750 words. Some centres and candidates have not adjusted to the requirement that footnotes are only used to provide references, but not for definitions. Specific definitions are not required, the important thing is to demonstrate that the terms are understood and used accurately.

It is important to carefully follow the rubric requirements. Many candidates lost a mark under criterion F because they did not provide the 3/CSE form with details of the sources, syllabus sections, the date commentaries were written and word counts. It is advisable to give the full URL of the articles used. Articles should be complete, and the parts that the commentary is focusing on should be highlighted. If an article is in another language the candidate must provide a full translation that is comprehensible: Google translate is not always adequate. Most candidates followed the rubric requirements and submitted three commentaries from different sources and covering three syllabus sections, within the word count. When this does not happen, it is important that the teacher takes this into account when assessing the portfolio. Teachers and candidates should take special care that the commentaries and articles have been accurately organized before uploading them.

The majority of candidates assessed had completed three commentaries and addressed three different syllabus areas using three different sources. The choice of articles was usually suitable, although it was a shame to see so few on economic development. Some candidates had produced their three commentaries in a very short period of time, which is not the intention of the IB and should be discouraged. Some candidates seemed to have searched for other articles related to the selected article to write their commentaries on and then used the extra information to write their analyses and evaluations, which again is not really appropriate and not the intention of the IB. There was a wide range of ability seen.

A few centres did not accurately complete the 3/CSE form. The maximum time lapse between the date the source article was published and the writing of the commentary is one year and this was sometimes not applied. Some teachers are penalizing students whose word count is less than 650 words.

Some centres did not adhere to the requirement that footnotes are only to be used for references, but not definitions. If they are used for the latter, then words are counted and this may make the commentary exceed the 750 word limit. Specific, textbook definitions are unnecessary but an understanding of terms must be shown.

Articles should be complete, not sections, and if the articles are long, then the specific areas being written about in the commentary should be highlighted. If the articles are in a different language, full transcripts of the article should be provided.

## Candidate performance against each criterion

### Criterion A: Diagrams

Most candidates included at least one relevant diagram, although these were often not well explained. Too often diagrams had been copied from textbooks or websites and labelling of curves and axes was generic. A few candidates had even pasted a photograph of a diagram taken from a textbook. Even though most were referenced it was hard to give full marks for such generic diagrams. It is preferable that candidates produce their own diagrams, either by hand or using computer skills. Neatly hand-drawn diagrams are very much preferable to copied ones. Although this criterion does say 'diagrams' in the plural, students can gain full marks if they use only one diagram. However, where the article lends itself to more than one it is usually the case that students do not attain full marks. Also graphs that have been adapted to the article using the correct product and actual prices (if known), are preferable to generic graphs. Sometimes incorrect currencies were used when prices were given. Some candidates excessively labelled the diagrams and extra words to those allowed had to be included in the word count.

### Criterion B: Terminology

Correct terminology was used by the majority of candidates but not always used appropriately throughout the whole commentary. There was sometimes incorrect terminology used too, such as devaluation instead of correctly used depreciation. Some students avidly defined every single term they used and referenced the definitions with footnotes which is unnecessary. If precise definitions are used they must be in quotation marks and referenced as to the source. Definitions must not be in footnotes, as they will be ignored. Some students gave a list of definitions of terms that they had used at the end of each commentary, which is inappropriate and unnecessary as this criterion's aim is an implication that the student understands the terms used. The majority of candidates did use appropriate terminology so it was rare to see 0 marks awarded for this criterion and the majority did score well.

### Criterion C: Application

The application of relevant economic concepts usually was satisfactory but too often not throughout the whole commentary when students started to apply pure theory that was not relevant to the article. Links need to be made between the economic theories/concepts and the article itself. Some students wrote the commentaries using the correct economic theory but with little or no reference to the article. Some students had selected difficult articles where they really did not understand the theory present and therefore it was hard for them to score more than 1 mark for this criterion. Some articles chosen dealt with issues that are not in the IB syllabus and again, they did not score well. However, the majority of students did score quite well.

#### Criterion D: Analysis

Analyses were usually attempted and a range of marks was awarded but too often this was rather limited, especially for those candidates who described what was happening and wrote more of a précis than an analysis. The aim is for students to explain and develop the theories linked to the articles. Sometimes there was a description of the article, followed by a description of the relevant theory but the two were not linked together. Many commentaries did have 'appropriate' analyses but were unable to achieve full marks as they were not 'effective'.

#### Criterion E: Evaluation

It was very pleasing to see that most students did attempt to evaluate, although sometimes this was irrelevant, wrong or unsupported. Quite a few candidates had researched other related articles and used these for their analyses and evaluations but they could not achieve top marks as the commentary must be written on the article selected. Extra material can only be used as a support, not as the basis of the evaluation. Some articles selected have already been analysed and evaluated, so the students are not actually synthesizing their own analysis and thus they could not attain top marks. Many just described what was happening and thus the evaluation was seen to be limited. Too many students used their own opinions as an evaluation, but this was too often unsupported. Also, to attain top marks the student must consider counter-arguments, if relevant, and give a balanced evaluation.

#### Criterion F: Rubric requirements

The majority of candidates did meet the rubric requirements, but some exceeded the word limit of 750 words and actually stated the word count as being over this. It is actually not required to state the word count, although highly recommended. Some students stated they were addressing a section of the syllabus that was incorrect. Again, some used the same media source twice, a few had selected articles older than one year when they wrote the commentary and finally several centres did not include the articles themselves, but just references to them and this of course loses 1 mark. These are all areas addressed by this criterion and there is very little excuse not to adhere to these rubric requirements that do not address economic skills. Occasionally articles chosen were not suitable, such as blogs and again a mark can be lost for this.

## Recommendations for the teaching of future candidates

For the teaching of future candidates it is recommended that students take at least 6-9 months to complete the portfolio of 3 commentaries, if not longer. The Internal Assessment is an integral part of the IB course and should not be seen as a set of assignments to complete at the end, which it was by some candidates. I would recommend that each assignment should be completed when different sections of the syllabus are being taught, so they may do one or two commentaries in Year 1 and the remainder in year 2. I would also recommend encouraging students to find articles on economic development and select articles about different countries other than their own.

Candidates should be discouraged from seeking other sources to add on to the information

already provided in their selected article. If they select appropriate articles, of a length that gives them enough to write about, there should be no need for extra information.

Teachers should guide students but not choose articles for them to write their commentaries on. It was noticed in some centres that the sample of students had all written their three commentaries on very similar topics. Teachers may give one written feedback only on the first draft and the second draft must be final.

It is recommended that students download and save articles directly with the source visible as honesty may be compromised if sources are just named. Also, the details of the sources in each file should match with the details given on the 3/CSE form. Highlighting of the areas of long articles being commented on is recommended too.

Students should be informed that there is no need to fully define every economic term used but just use and explain it appropriately.

Teachers should make brief comments as to why they awarded marks. When teachers write no comments about why marks have been given, the moderator sometimes is unsure as to why marks have been or not been given, particularly for criterion F.

It sometimes seemed like the teacher had not checked the article and commentary at all, such as when an electricity tariff being raised was seen as a trade tariff. It is the role of the teacher to check the article and the first draft submitted to help students avoid obvious errors like this.

Referencing of the article itself should be on the 3/CSE form but nowhere else is it needed. Candidates must include the full article with the commentary. Diagrams need to be presented appropriately, carefully labelled as to the content of the article and be dynamic and not generic.

## Further comments

It is very important to stress the importance of academic honesty in the portfolios. Teachers should ensure that all work presented is that of the student alone.

It is also necessary to remind teachers against providing too much help and feedback should only be given once, on the first draft of the commentary, and no more. Students are not allowed to continually re-draft their commentaries.

Teachers at times seem to misinterpret the criteria, especially Criterion F. Quite a few marks of 0 were given when only 1 rubric requirement was breached. There also seemed to be some misunderstanding between Criterion C and D. Teachers must ensure that they are fully aware of the marking criteria and also that the students themselves are aware of these. It can be quite obvious sometimes that either or both the student and teacher are not aware of these.

## Higher level paper one

### Component grade boundaries

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 5	6 - 10	11 - 17	18 - 23	24 - 29	30 - 35	36 - 50

### The areas of the programme and examination which appeared difficult for the candidates

Some candidates continue to confuse public goods with merit goods and therefore tend to provide inappropriate examples. Many candidates also find the concept of automatic stabilizers a difficult one to come to terms with. As in previous sessions significant numbers of candidates struggle to provide real world examples in support of their responses although this is something that is improving.

### The areas of the programme and examination in which candidates appeared well prepared

Candidates were generally able to give well-developed accounts of why oligopolistic producers might favour non-price competition for question two. It was evident that candidates have a clear and often sophisticated understanding of the issues that attend structural unemployment as evidenced in question three. The best candidates are beginning to use real world examples in a more dynamic and effective way, in particular, to support their synthesis in the part B responses to questions.

### The strengths and weaknesses of the candidates in the treatment of individual questions

#### Question 1

a) Many candidates paid scant attention to the “What to produce” element of the question. There was a tendency to describe the workings of the price mechanism in isolation, and not really fully make the connection with how this directs what is produced. There were also a number of candidates who struggle to explain what is happening in a demand and supply diagram. In particular, some struggle to separate a shift in a demand curve and what causes it, from a movement along a demand curve and how that is caused. Most candidates were clear about what a competitive market is.

b) For this question a large proportion of the candidates were unsure what a public good was. It was common for there to be confusion with merit goods. Even where candidates could identify the characteristics of a public good they would then go on to cite examples that were clearly merit goods. Beyond that, there was usually an understanding of what the relevant consequences might be.

#### Question 2

a) Most candidates could explain the nature of price stability in oligopolistic markets. Not everyone could adequately identify what non-price competition was. A significant number of candidates chose to approach their response with the use of a game theory matrix. For this specific question that was not the best approach, as it did not facilitate a complete consideration of price decisions both with regard to an increase in price and a decrease in price.

b) Candidates tended to focus on the advantages and disadvantages of collusion in their responses to this question. The better candidates could also draw on the relative merits of non-collusion. The full range of marks was available to either approach. There was some use of real world examples, although perhaps less than could have been expected, given that there have been many examples of collusion between firms in the global media over the last two years. Again, it is the best responses that are most fully able to support a written answer with developed real world examples.

#### Question 3

a) This was the most popular question on the paper and candidates were generally able to explain how structural and technological change leads to a mismatch of skills, and hence to structural unemployment. At least a basic understanding was shown in the vast majority of cases; however, there were few effective attempts to develop real life examples in the context of the question to achieve the top level four.

b) Many candidates separated natural from cyclical unemployment nicely and so were able to develop some evaluative comment from that. Many confined their response to evaluating education and training only without a consideration of any alternative policies which might have allowed for a comparative evaluation, although the focus would need to remain on education and training as specified by the question. Some candidates proposed market-based supply-side policies such as abolishing unemployment benefit and the minimum wage to incentivize the workforce.



## Question 4

a) This was the least popular question on the paper, however, well-prepared candidates were able to give precise explanations of the impact of automatic stabilizers and explain where progressive tax levels and welfare payments act to reduce the effects of the fluctuations in the level of economic activity. Business cycle diagrams were usually used to illustrate the impact.

b) This question was generally well done and there were many examples of very good scripts. Some candidates confined their responses to evaluating fiscal policy in isolation, without mentioning monetary or supply-side policies. These responses were often very good. However probably most candidates made some reference to the merits of alternative policies, this is perfectly reasonable as long as the focus remains an evaluation of fiscal policy as directed by the question. Where inflation was considered to be a demand-side phenomena only, this tended to restrict the scope of the response. Diagrams were generally good. The better candidates were also able to develop effective examples to support a balanced synthesis.

## Recommendations and guidance for the teaching of future candidates

- Some candidates are producing scripts that are very difficult to read. Candidates should be advised that they need to produce a response that is readable otherwise examiners will be unable to give marks for it.
- Candidates need to be aware that for part B of each question they need to provide an evaluative response. Lengthy explanations will not access top marks.
- To access the level four mark band, students need to use real world examples. To do so they need to regularly read appropriate news media.
- Encourage the use of properly labelled and explained diagrams. They should be dynamic in nature.
- Stick to answering what the question is asking; avoid superfluous regurgitation of theory that is not answering the question and simply wastes time.
- Encourage candidates to carefully manage their time in the exam.
- Consider using a thematic approach to teaching some topics centered on a specific country. This might assist students to develop a wider economic literacy through which they might more readily use examples.

## Standard level paper one

### Component grade boundaries

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 8	9 - 16	17 - 20	21 - 25	26 - 31	32 - 36	37 - 50

### The areas of the programme and examination which appeared difficult for the candidates

Areas of difficulty for candidates can be considered in terms of meeting the criteria needed to achieve the highest marks on a question and difficulties relating to specific questions. In terms of the marking criteria, the key difficulties are using effective real world examples to illustrate answers and developing evaluative points in part b responses.

The common challenges students faced on the questions in this year's Standard Level Paper 1 were as follows. In section A there was a tendency for candidates to drift away from the question and consider aspects of the question that were not specifically required. In question (1a), for example, the working of a subsidy was considered rather than the reasons for government using a subsidy. The accuracy of diagrams in Section A and B is also an element that needs developing. This was particularly the case in question (2a) on complements and substitutes. Students also needed to be more effective with their diagrams in question (3a) on structural unemployment. In part B students could have shown a better understanding of how education and training reduces unemployment. There were also some weaknesses on question (4b) on how GNI per capita is calculated.

### The areas of the programme and examination in which candidates appeared well prepared

The strengths of candidates can also be looked at in terms of the technique needed to achieve the highest marks on a question and strengths related to specific questions on the paper. It is good to see candidates trying to define key terms accurately and use appropriate economic theory in their answers to questions. In section A on question (1b) students were strong on the consequences of subsidies in agricultural markets and this was well illustrated in the diagrams they used. Candidates were also good on question (2b) on the way regulation can reduce negative externalities. In section B on question (4b) students were effective at evaluating how rising GNI per capita can lead to rising living standards.

## The strengths and weaknesses of the candidates in the treatment of individual questions

### Question 1

(a) Explain why governments provide subsidies for some goods and services. [10]

This question was done quite well by candidates in terms of a definition of subsidy and the reasons for the application of subsidies by governments. Graphical analysis was used effectively here with clear explanations using appropriate diagrams. Some candidates did, however, focus on the nature of a subsidy rather than reasons for the subsidy being applied. The strongest answers, for example, explained how governments apply subsidies to encourage the consumption of merit goods. Whilst some effective real world examples were used, many students did not use examples. There are, for instance, many good examples in areas such as healthcare and renewable energy that could have been used.

(b) Discuss the consequences of providing a subsidy for goods such as agricultural products. [15]

There was a tendency for some students to over-repeat elements of part (a) in part (b). The best answers focused effectively on the use of subsidies in agricultural markets and how this benefits consumers and producers. This was often evaluated effectively by students who looked at the opportunity cost of funding subsidies by governments. Some students did very effective graphical analysis here with the best responses discussing the consequences of subsidies for different stakeholders by looking at changes in the consumer and producer surpluses. It was also pleasing to see responses that used effective real world examples, such as the market for rice in different countries.

### Question 2.

(a) Explain how an increase in the price of air travel might affect the demand for its complements and its substitutes. [10]

This was a reasonably straightforward question for candidates and produced many clear answers that explained how a rise in the price of air travel decreases the demand for its complements and increases the demand for its substitutes. Some students included cross elasticity of demand which is relevant but not really needed. The best answers used accurate, relevant diagrams that clearly related to the question. There was a tendency for students to use relevant diagrams but not to show shifts in supply and demand curves that clearly illustrated their answer. Students were generally good at using relevant examples to illustrate their

answers. The best responses considered markets they have studied such as hotels as complementary goods and train travel as substitutes.

(b) Evaluate the view that the use of regulation is the most effective way to reduce negative externalities. [15]

This section produced some of the best answers on the whole paper. Many candidates have a very good grasp of externality theory and are able to explain negative externalities using accurate diagrams to illustrate it. One of the weaknesses here was answers giving enough time to regulation as a policy and evaluating it effectively. A significant number of students chose to look more at tax as a policy and this meant drifting away from the central argument. The best students evaluated their answer by considering the problems of regulation in terms of enforcement and management and how this might increase business costs. It was good to see some students using effective real world examples of regulation. Some of the best responses, for example, considered regulation in the market for cigarettes in different countries.

### **Question 3.**

(a) Explain why structural unemployment may occur in an economy. [10]

This question produced some good answers but also responses that were not clear on the central theme of structural unemployment which is the problem of getting work because of a lack of labour mobility in terms of skills and geographic factors. Many answers were, however, good at looking at the causes of structural unemployment: declining industries, foreign competition and capital replacing labour. Some students struggled to include a relevant diagram. The use of a demand and supply for labour diagram showing falling demand for labour was an effective way of illustrating this. Students often find macro questions more difficult to include examples. The best answers considered examples such as workers made redundant in car manufacturing who struggle to find work in the service sector because their skills are not easily transferable.

(b) Discuss the view that the best way to reduce unemployment is through education and training. [15]

Whilst there were some good responses to this question, many students did not spend enough time discussing the application of education and training as a policy to reduce unemployment. Lots of responses wanted to talk about fiscal and monetary policy, which took their answer away from the central issue of education and training. This suggested some students used pre-learned answers to this question which is always risky for students because they use a pre-learned response rather than answering the actual question asked. The best candidates evaluated the use of education and training in terms of its cost and how it is ineffective when

tackling demand-deficient unemployment. They also supported their answer with a relevant real world example such as government funded training programmes in different countries.

#### Question 4.

(a) With reference to the income, output and expenditure approaches, explain how the real gross national product (GNP)/gross national income (GNI) per capita of a country can be measured. [10]

This was the least popular question on the paper with many candidates choosing not to do it. Part (a) is quite technical with students needing to show an understanding of: GNI (GDP + net property income), real terms and per capita. Very few answers showed a clear understanding of all elements of this. Students were reasonably good at explaining how income, output and expenditure approaches are used to measure national income and supported this with the circular flow of income diagram. Weaker answers failed to use a diagram and did not include a real world example. Some students got confused and tried to explain the difference between GNI and GNP when this was not required by the question.

(b) Discuss the view that a rise in the GNP/GNI per capita will always lead to a rise in living standards in a country. [15]

Although relatively few candidates did this question there were some quite good answers that discussed how a rise GNP/GNI per capita might lead to an improvement in living standards. The best answers looked at issues like rising incomes, lower unemployment, reduced levels of poverty and more tax revenue to fund increased government spending on public services. Students went on to evaluate this by considering the impact of rising GNP/GNI on income inequality, inflation and the environment. As in part (a) some students did not include a diagram or a real world example. Use of an AD/AS diagram or the Lorenz curve were a useful way to illustrate this answer. Some of the best answers used examples that considered how rising GNI/GNP in, for example, China have had positive and negative effects on the living standards of their population.

### Recommendations and guidance for the teaching of future candidates

- It is important for students to focus on the question asked and not to write pre-prepared answers. This was particularly the case in parts (2b) and (3b).
- Students need to use diagrams as part of each response, and to make sure the diagrams are clearly labelled and fully illustrate the point being made. Question (3a) and (4a) had weaknesses here. All papers are scanned in black and white so students should not use and refer to colours in their diagrams.
- Responses need to evaluate in part (b) questions by writing answers that focus on the question rather than looking at alternative policies in too much detail.
- Candidates need to use real world examples in each of their answers. It would be useful for centres to work on this when students are practising examination questions.

## Higher level paper two

### Component grade boundaries

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 7	8 - 14	15 - 16	17 - 21	22 - 25	26 - 30	31 - 40

### General comments

This subject report, used in conjunction with the markscheme, is designed to help teachers prepare their candidates for future examinations by clarifying the expectations of the examining team. Since the markscheme outlines the most appropriate responses, this report focuses on the more common errors made by candidates and clarifies how the examiners discriminated between weaker, average and stronger responses.

The examination was well-received by those centres that completed the feedback forms. The questions were considered to be well-balanced and the top markbands were accessible to the well-prepared candidates. Some centres commented that there were question items that were based on learning outcomes from the Microeconomics and Macroeconomics sections of the syllabus. This should not be a surprise to the candidates and their teachers. Teachers are reminded that while the principal focus of paper 2 is on International economics and Development economics, it is likely that the students will be required to draw on other sections of the syllabus.

### The areas of the programme and examination which appeared difficult for the candidates

- Labelling of the vertical axis of an exchange rate diagram and explaining why a supply or demand curve for a currency has shifted.
- Using international trade diagram to show the reduction of a quota and explaining the diagram in detail.
- Using economies of scale diagram to illustrate economies of scale and to explain accurately what economies of scale are.
- Using a production possibilities diagram to distinguish between growth in potential output and actual growth. Explaining the specific reasons why a production possibilities curve may move.
- Distinguishing between general dimensions of economic development and specific, measurable indicators that serve as proxies of these dimensions and are used as HDI components.
- In part (d) of the questions many candidates were able to identify valid evaluative arguments and support them with appropriate evidence from the text, but were not able

to support these arguments with proper analysis in order to demonstrate understanding of the details of the underlying theory. Many weaker candidates just paraphrased valid points from the text without developing them further. Some weaker candidates failed to take into account the specifics of the question/stimulus text and delivered pre-learned essays that were technically correct but were only faintly relevant.

- Many candidates lacked structure in their responses, making it difficult for examiners to determine the appropriate level of achievement and award adequate marks.

## The areas of the programme and examination in which candidates appeared well prepared

- Defining economic terms. In general, the definitions were sufficiently accurate for full marks and fewer candidates than usual wasted time on long explanations.
- Using a macroeconomic (AD/AS) diagram to analyse the effects of changes in interest rates and net exports on an economy.
- Using a price ceiling diagram to analyse the effect of imposing price controls on a market.

The strengths and weaknesses of the candidates in the treatment of individual questions

### Section A

In Section A question 1 was answered better than question 2, although it was slightly less popular.

#### Question 1

- (a) (i) The great majority of the candidates were able to accurately define monetary union. The very best answers were precise and to the point, while some less confident students wasted too much time and provided a lengthy answer with some redundant details.
- (ii) The great majority of the candidates were able to state accurately two functions of the central bank. Some students decided to play it safe and listed more than two functions. Such answers were not penalised, but students are advised to not over-allocate time to question item (a).
- (b) Almost all students correctly diagrammed the market for the euro and showed an increase in supply of the euro. The weaker students illustrated an increase in the supply of the krone, but labelled the vertical axis as krone per euro (implying that they were analysing the market for euros) which led to certain confusion in their analysis.
- (c) The great majority of candidates were able to use an AD/AS diagram to explain how lower interest rates would affect the Danish economy. A very limited number of candidates did not read the requirements of the question carefully and inappropriately

used a money market diagram or exchange rate diagram instead of AD/AS diagram.

- (d) There were two valid approaches for evaluation for this question: one was to discuss the strengths and weaknesses of fixed rates and the other was to discuss the strengths and weaknesses of a weak currency and/or a strong currency. Some weaker candidates identified the advantages and disadvantages of fixed exchange rates, but failed to show how the evaluation is relevant to the stimulus text. The best candidates were able to carefully consider the specifics of the situation of Denmark and to critically prioritise the advantages and disadvantages in this particular case.

## Question 2

- (i) The weaker responses confused absolute and comparative advantage and explained comparative advantage as a situation where one country can make a good more efficiently without mentioning opportunity cost.

- (ii) The weaker candidates simply stated that it is a government payment to firms, but did not identify the purpose of subsidies and couldn't achieve full marks.

- (b) Many candidates could not correctly use an international trade diagram to analyse the effects of a quota reduction, and those that could often used a diagram that simply showed the imposition of a quota. Both approaches allow for the same conclusions - increase in price, increase of domestic production and decrease of domestic consumption. However, the approach that simply showed the imposition of a quota was rewarded with a maximum of 3 marks on the grounds that the particular candidate either had not read the question carefully or didn't know how to apply the model in this particular situation (or both). Too many candidates misunderstood the meaning of lowering of the quota and confused it with lowering of a tariff. Therefore, they showed a decrease in price (increase of the quota) rather than a decrease of the quota (leading to an increase in the price). Some of the weaker candidates failed to clearly show on the diagram whether the price has increased or decreased due to the reduction in the quota.

- (c) Many candidates were not able to provide a complete and accurate diagram illustrating economies of scale. Even those who were able to provide a proper diagram often didn't apply the theory to the particular case by identifying a point characterised by low quantity of production and high long-run average cost. Another common mistake was not to mention a specific reason for the realisation of economies of scale (such as bulk buying).

- (d) Some weaker candidates did not pay close attention to the wording of the question item (which specifically required the impact on the beef market to be evaluated) and discussed the effects of protectionism in general or the possible macroeconomic implications of quotas and subsidies.



## Section B

In Section B the better responses tended to be to question 3, even though the majority of the candidates opted to answer question 4.

### Question 3

- (a) (i) The great majority of the candidates were able to accurately define multinational corporations. Even the weaker candidates were able to provide some vague explanation and earn a mark on this question.
- (ii) The great majority of the candidates were able to accurately state the formula for the multiplier. A limited number of candidates confused marginal propensity to consume (MPC) with marginal propensity to save (MPS) and provided a formula that could not be rewarded with full marks.
- (b) Some weaker candidates considered a move from one point of the production possibilities curve to another point, rather than a shift of the entire curve. Another mistake in some of the weaker responses was to shift the curve out on the diagram, but not to explain in sufficient detail why it would shift out. There were cases of confusion between growth in real GDP and growth in potential output. Nevertheless, the majority of candidates provided enough relevant information to earn full marks.
- (c) The great majority of candidates were aware that the human development index (HDI) is a composite indicator that attempts to measure and combine different dimensions of development (such as access to education), but didn't know the specific components in it (such as mean and expected years of schooling). It seems that many candidates were not aware of the difference between an indicator and what it "indicates". The weaker students failed to achieve full marks, because they neglected to answer (or didn't understand) the 'ranking' part of the question. Too often students referred to the rather outdated method of measuring the knowledge and education dimension of HDI by using the adult literacy rate and the gross enrolment ratio. In 2011 this method of measuring knowledge and education was subsumed by the method where mean and expected years of schooling are used. Teachers should update their teaching materials and sources of information to ensure that the students are aware of the current methods for constructing the HDI.
- (d) It seemed to have been easier for candidates to get to level 3 marks in this question than it was for question 4, probably because this question was more specific and it was easier for candidates to identify relevant theory to apply to the particular situation. Nevertheless, some candidates missed the opportunity to develop economic theory and engage in analysis. Yet other candidates delivered a pre-learned mini essay about the strengths and limitations of FDI in general, but didn't make enough references to the article. Although it wasn't explicitly asked in the question, many students looked at the

impact on growth and development and that was considered a valid approach.

#### Question 4

(a) (i) Some weaker candidates focused their answer on how the interest rate is determined rather than on what it is. Other weaker candidates confused interest (an amount of money) with interest rate (a percentage).

(ii) Many candidates lost marks on this question item because they provided an incomplete definition of the Gini coefficient - most knew that it measures income inequality, but failed to say something else about it to show more understanding. Another source of confusion was the apparent inability of some candidates to distinguish between equality and equity. It is recommended that teachers clarify to their students that the concepts of equality and equity are related, but not exactly the same and should not be used interchangeably when defining the Gini coefficient.

(b) Even the weakest students were usually able to get some marks on this question item. Many unnecessarily wrote at length about all the effects (including black markets and need for further government intervention).

(c) Generally, a very well-answered question item (with the exception of some weaker candidates who used a macroeconomic diagram to analyse the economy of China instead of the economy of Venezuela).

(d) This was a difficult question item, because there was so much information given in the text that candidates didn't seem to know where to begin. Answers were often very poor, lacked structure and simply uncritically paraphrased the text. Candidates often repeated key points from the text, but too many failed to develop them, to apply economic theory and to explain why the challenges faced by South American countries were obstacles to their economic development. The best candidates started their answer with a definition/explanation of economic development and consistently linked their arguments to specific dimensions of economic development.

## Recommendations and guidance for the teaching of future candidates

Experience has shown that the best responses are distinguished by the excellent performance in part (d) of the data response questions. The candidates who achieve highest marks in part (d) usually follow a similar pattern. They start with a short paragraph that re-states the requirements of the question item (to make sure that they would not get carried away), defines one or two key terms from the text of the question and states the purpose of the text that follows. Each of the paragraphs that follow contains analysis of an issue in the stimulus text that relies heavily on a diagram for a detailed and well-structured explanation of the problem that includes the relevant economic variables and the factors that affect them. The diagram is a visual representation of an economic model that is based on an underlying theory, breaks the issue

into parts and shows how the parts relate. The best students either make references to the diagrams in parts (b) and (c) or draw new diagrams to help them structure their thinking. The analysis leads to one or more conclusions that are logical, consistent and follow from both economic theory and the evidence in the stimulus material. The results from the analysis are used to support one or more evaluative arguments. These arguments demonstrate the ability to synthesise the results from the analysis, awareness of the limitations of the analysis and critical thinking skills. The text concludes with a paragraph that further synthesises the most important arguments, prioritizes them according to the specifics of the situation and draws a tentative conclusion that is derived from the interplay between theory, evidence and subjective judgment.

Teachers should be aware that the best answers are provided by students who have not only learned the textbook theory, but also possess some metacognitive skills such as the ability to distinguish between the requirements of the different assessment outcomes and to manage their time to complete most efficiently the task in hand. It is important to develop the understanding of candidates to an extent that they can at least understand what constitutes proper analysis and what constitutes proper evaluation/discussion. Often repetition of textbook learning is thought to be sufficient and for this reason candidates rarely reach level 3 marks. Other common mistakes that weaker candidates make is to write unnecessarily long answers for parts (a), (b) and (c) resulting in reduced time for addressing part (d) effectively. This is to a large extent a result of limited verbal reasoning skills in a second language, cultural inexperience with this type of assessment and lack of time management skills. Teachers might try to devote more time to developing metacognitive skills rather than just teaching theory (which is accessible to students in the textbook anyway). Teachers are reminded that internal assessment (IA) commentaries are similar in structure to the externally assessed data response paper. They present an excellent opportunity for teachers to clarify to the students the four assessment outcomes, to show students how assessment outcomes relate to writing a good data response paper and to develop metacognitive skills in their students. IA commentaries are valuable pedagogical device and the time allocated for work on them should be used not only for improving the commentaries, but also for developing the skills that are required for successful performance on the external exams.

For this reason, below is provided a short overview of the four assessment outcomes with comments regarding their relevance to the different parts of the data response paper.

### **AO1 - knowledge and understanding**

This assessment outcome is emphasised in part (a) of the data response paper, but candidates should be reminded that the knowledge and understanding of economic terms and concepts is examined in all parts of the paper. Candidates need to show an examiner that they have studied economics, not simply that they can use some economic words that appear in a question or in the text.

Teachers should encourage their candidates to learn precise definitions, as the use of precise and accurate economic terminology will enhance performance with regard to all assessment

components. Incomplete knowledge and understanding of economic terms and concepts would prevent candidates from even comprehending the requirements of each question item and will put them in a very disadvantaged position. If the candidates are confident in their knowledge of definitions, they can proceed efficiently through part (a) of each data response question, explain precisely and accurately the diagrams in parts (b) and (c) and quickly recognize economic concepts to develop in part (d). To help candidates improve their knowledge and understanding of economic terms and concepts, teachers might encourage them to prepare their own glossaries and flashcards. Furthermore, in part (a) question items, students should be encouraged to write no more than two sentences.

### **AO2 – application and analysis of knowledge and understanding**

This assessment outcome is examined in parts (b), (c) and (d) of the data response paper. Mastery of this outcome can be demonstrated by the accurate use of a relevant economic models and the ability to explain the application of the models in detail. In the context of paper 2, the economic models that are applied to the particular situation should be presented in the form of diagrams. The students should be able to explain why the particular diagram is relevant to the analysed situation by appropriate references to the stimulus text. The students should also be able to explain the application of the diagram in details. For example, when a candidate points out that a particular curve shifts to the left or right, he or she should be able to explain the reasons for the shift. Candidates would thus benefit if they compiled a glossary of all the diagrams for which there are specific learning outcomes in the syllabus. The diagram and the explanation must be integrated with each other. Candidates should make sure that their diagrams address the specific question that is asked, rather than write all about every aspect of a diagram. To ensure that the diagram they are applying is appropriate the candidates are advised to read very carefully question items (b) and (c).

### **AO3 – synthesis and evaluation**

This assessment outcome is emphasised in part (d) of the data response paper. However, candidates need to keep in mind that to achieve the highest markband in part (d) they should also demonstrate clear knowledge and understanding of the relevant economic terms (AO1) and support their evaluative arguments with appropriate analysis (AO2). The synthesis and evaluation in part (d) responses need to draw heavily on the diagrams in parts (b) and (c). The candidates should use the conclusions from the analysis of those diagrams to support their evaluative arguments. Whenever candidates support their evaluative arguments with conclusions from the analysis of the diagrams in parts (b) and (c) they should refer to them explicitly to ensure that their analysis is sound and will be considered effective.

Similarly, the synthesis and evaluation in part (d) should rely heavily on references to the stimulus material to ensure that the recommendations and conclusions are relevant to the particular situation. Candidates should be encouraged to think critically about the information in the text/tables/figures and fully 'engage' with it, in order to be able to apply the theory. Teachers should encourage students to support the relevance of their arguments by referring to specific paragraphs or using quotes from the text. At the same time, the weaker candidates

tend to uncritically paraphrase or repeat arguments of the text and add little value to what is already known. Teachers should emphasise to their students that the information from the stimulus material should be considered only a starting point for the analysis and arguments from the text should not be accepted uncritically.

#### **AO4 – selection, use and application of a variety of appropriate skills and techniques**

This assessment outcome is explicitly examined in parts (b) and (c) of the data response paper. However, candidates should be aware that the labelling of the axes and curves is closely related to the performance with regard to AO1. Furthermore, the ability to draw and annotate diagrams is a crucial prerequisite for successful analysis and, therefore, significantly affects the performance of the candidates with regards to AO2 and AO3. Experience has shown that failure to annotate diagrams correctly often leads to confused (or irrelevant) analysis and incorrect conclusions. As a consequence, the analysis is not considered effective, the conclusions cannot be used to support the synthesis and evaluation and candidates are denied access to the top markbands.

To demonstrate mastery with regard to this learning outcome candidates must be able to distinguish between macroeconomic and microeconomic labelling and need to pay closer attention to the labelling of exchange rate diagrams. Candidates should also use notation such as (Q1 to Q2) or (AD1 to AD2), arrows and dotted lines from the equilibrium points to the axes to illustrate the changes in the relevant variables or the effects of changes in factors that determine them. Diagrams should not be placed at the end of the examination. They should be drawn exactly where the accompanying explanation is written and should take about a third of a page. It is strongly recommended that candidates use a ruler to make sure that diagrams are neat and the information is presented clearly.

## Standard level paper two

### Component grade boundaries

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 4	5 - 8	9 - 11	12 - 17	18 - 23	24 - 29	30 - 40

### General comments

This subject report, used in conjunction with the markscheme, is designed to help teachers prepare their candidates for future examinations by clarifying the expectations of the examining team. Since the markscheme outlines the most appropriate responses, this report focuses on

the more common errors made by candidates. General comments about examination-writing techniques are similar, if not exactly the same as in previous reports.

The examination seems to have been well-received by those centres that completed the G2 feedback form. It was considered to have appropriate syllabus coverage. The texts were considered to be accessible to the majority. Some centres expressed concerns that some sub-sections tested concepts from units 1 and 2. As stated in the economics subject guide, the principal focus of the questions in section A and B is on section 3 and 4 respectively but students may be required to draw on other sections of the syllabus. There seemed to be few problems with time management.

## The areas of the programme and examination which appeared difficult for the candidates

The performance of candidates seemed to be better in the International Economics section than in the Development Economics section. It was not uncommon to see scripts with good parts (b) and (c) for question 4 as those were testing microeconomic concepts but with noticeable difference in quality for section (d) of the same question. In particular, most candidates avoided question 3 which tested unit 4 topics for sections (b) and (c). This may imply that centres should spend more time covering development topics than they are doing at the moment.

This will be further addressed in the context of individual questions.

## The areas of the programme and examination in which candidates appeared well prepared

The fact that there is a good spread of Q1 and Q2 answers shows that candidates are quite comfortable with the concepts learnt under unit 3. Moreover, the definitions for sub-section (a) were often textbook perfect and the diagrams drawn in sub-sections (b) and (c) properly referenced and explained, especially for those which showed a degree of similarity to past IB papers. It would seem that students who prepared for the exam could easily predict the requirements of many sub-sections.

This will be addressed in the context of individual questions.

## The strengths and weaknesses of the candidates in the treatment of individual questions

### Section A

Question 1 seemed to be a little less popular than question 2.

#### Question 1

(a)(i) The majority of candidates found this to be a straightforward question. Most candidates could identify a common currency and a common central bank as characteristics of a monetary union.

(ii) The majority of candidates were able to explain that a central bank controlled the money supply and interest rates in an economy.

(b) The majority of scripts reflected a good understanding of the workings of exchange rate mechanisms. Most diagrams were properly labelled and explained that the central bank is supplying Danish krone to buy euros, thus increasing the supply of the Danish krone to bring the value of the currency back to the fixed rate. Many of the lower achieving candidates drew a supply and demand of euros diagram and thought that by buying euros, the central bank was effectively reducing the supply of euros.

(c) This was generally a well answered question. The majority of candidates provided an AD/AS diagram, with a shift of the AD curve to the right, and an increase in the average price level and increase in real GDP. They then explained that lower interest rates acted as expansionary monetary policy, increasing consumption and/or investment.

(d) "Evaluate" requires candidates make an appraisal by weighing up the strengths and limitations. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

Higher achieving responses explained the benefits of a fixed currency such as greater certainty and investor confidence as well as the possible consequences of a higher exchange rate on export competitiveness and the impact on different macroeconomic indicators, such as employment, economic growth, and the current account balance. They used information from the text to support their opinions. They weighed the strengths and limitations of a fixed currency and reached a considered conclusion regarding the desirability of such an exchange rate mechanism. Lower achieving responses ignored the text and were limited to a definition of a fixed exchange rate. Some even confused exchange rate and interest rate.

## Question 2

(a)(i) This question was generally well answered but a sizeable number of candidates only considered the flow of money from trade, ignoring the income flows and transfers.

(ii) Most candidates had problems with this question. The majority could not go beyond stating the WTO's general goal of encouraging free trade.

(b) As was the case in 1(b), most candidates were able to explain appropriately the workings of exchange rate mechanisms with a correctly labelled diagram. The answers often clearly stated that an increase in the demand for imports would entail an increase in the supply of the Indonesian rupiah, leading to a rightward shift of the supply curve of the currency on the international market.

(c) This was a poorly attempted question. The majority of students could not draw a quota diagram and many resorted to drawing a tariff diagram. This, coupled with a misunderstanding

that a lower quota would lead to a decrease in price and domestic production, clearly reflects a confusion between the two trade barriers.

(d) "Evaluate" requires candidates make an appraisal by weighing up the strengths and limitations. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

Higher achieving responses could weigh up the strengths and limitations of trade protection and its impact on macroeconomic variables such as growth and the current account deficit, using information from the text to support their arguments. The best answers could link the practice of import substitution to a need to diversify the Indonesian economy away from dependence on commodity exports.

Lower achieving responses tended to attempt to explain the workings of trade barriers and in particular tariffs, which was only loosely relevant to the question.

## Section B

Question 4 seemed to be more popular than question 3 probably due to unit 1 sub-sections, which tend to be favoured by students.

### Question 3

(a)(i) This question was well answered with most candidates clearly stating that investment is spending by firms on capital goods.

(ii) A relatively well answered question. The majority of candidates could explain that MNCs are companies which have productive units in more than one country. However, many answers were capped at L1 as they lacked a reference to 'production', simply stating that MNCs were companies which invest in other countries.

(b) Many candidates easily achieved L1 with a traditional poverty cycle diagram. Full L2 answers were less common due to an often weakly established link between investment from abroad and the savings gap.

(c) Most candidates were able to establish that the HDI is a composite index and that GNI per capita was one of the components. Surprisingly, many could not explain why the HDI and GNI per capita rankings differed. As such, many of the answers were capped at L1.

(d) "Evaluate" requires candidates make an appraisal by weighing up the strengths and limitations. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

Higher achieving responses could identify economic development related issues such as the lack of diversification or the over-reliance on the primary industry. They then identified the positive and negative impacts of Chinese FDI on the Ethiopian economy with special attention to the impact on the economic development of the country, and using the text and data from the question to support their claims. Evaluation usually took the form of weighing up the overall effects of FDI on the people of Ethiopia in a final, concluding paragraph. However, a number of



candidates took an evaluative approach throughout the response in the form of properly supported value judgments.

Lower achieving responses wrote vaguely about MNCs and quoted passages from the text without any value-added analysis and made no attempt to link the inflow of FDI to economic development issues. The skills of evaluation and synthesis were lacking in such descriptive scripts.

#### **Question 4**

(a)(i) Although this is an easy question, a considerable number of candidates still list the old indicators of the HDI (which have not been used since 2009).

(ii) This is quite a common question, and was answered well by the vast majority of candidates.

(b) Most candidates were able to earn full marks for this question, by drawing a demand and supply diagram with an increase in supply of coffee, lowering the price and increasing quantity. This clearly reflects a certain familiarity with the basic economic concepts of demand and supply learnt early in the course of the programme.

(c) This question was surprisingly poorly attempted with many candidates considering education to be a case of externalities from production and incorrectly shaded welfare losses. A large number of candidates could achieve full L1 with a properly drawn diagram but few could reach L2 with a correct explanation linking the provision of free education to either an increase in demand or supply.

(d) “Evaluate” requires candidates make an appraisal by weighing up the strengths and limitations. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

A large number of candidates defined aid and economic development and then wrote quite generic statements on the advantages and disadvantages of aid in general with limited to no value-added analysis to the information from the text. Such responses were often capped to a mid L2.

Higher achieving responses were those which acknowledged that aid is a complex concept which comes in various forms – such as humanitarian aid or project aid. They could establish a clear link between the various aid programmes mentioned in the text and the impact on the standard of living, many through a reference to the components of the HDI. Once more, the better scripts were those which considered economic development issues such as corruption, underdeveloped infrastructure or the poverty cycle.

### **Recommendations and guidance for the teaching of future candidates**

Many will note that these suggestions have appeared in previous examiner reports at both standard and higher level. However, since the structure of the questions and the expectations have not changed, the advice remains largely the same.

- While the main focus of this paper is on International and Development Economics, it is essential that teachers and candidates are aware that questions on this paper may come from every area of the syllabus.
- Teachers should really encourage their candidates to learn precise definitions, as the use of precise and accurate economic terminology will enhance performance on all assessment components. If the candidates are confident in their knowledge of definitions, they can proceed quickly through the first part of each data response question. To help candidates to develop this important skill, candidates might be encouraged to compile a glossary of terms. Candidates must be taught to include appropriate economic terms in their definitions, in order to distinguish themselves from people who have simply picked up some information without having taken an economics course.
- In part (a) questions, students should be encouraged to write no more than two sentences.
- Many part (b) and (c) questions require the use of a diagram, and these are generally all standard diagrams from the syllabus. Candidates would thus benefit if they compiled a glossary of all the diagrams. Where a diagram is used in parts (b) or (c), candidates should be sure to use/explain the diagram by making references to it in the response. The diagram and the explanation must be integrated with each other. Candidates should explain reasons for any changes and use (dotted) lines to the axes and notation such as (q1 to q2) or (AD1 to AD2) in their written work.
- Diagrams should not be placed at the end of the examination. They should be drawn exactly where the accompanying explanation is written.
- Candidates should take about a third of a page to draw their diagrams, and should use a ruler to make sure that it is done neatly so that the information is clear.
- It is the policy that candidates are not allowed to use coloured pens/pencils on their examinations. Therefore, there should not be references to different coloured lines in the diagram, as these will not show up on the scanned examinations. However, they should be sure to use arrows to indicate the direction of change of any variables.
- Diagrams should be made appropriate to the question and/or the market in the question.
- Candidates must also be able to distinguish between macroeconomic and microeconomic labelling. Failure to label diagrams correctly prevents students from achieving full marks.
- Candidates must be taught to carefully identify what a question is asking for in parts (b) and (c). They should make sure that their diagrams address the specific question that is asked, rather than write all about every aspect of a diagram.
- Candidates could be advised to re-read a question once they have finished writing their answer. This can serve as a self-check to make sure that the question is actually answered. In

many cases, candidates come very close, but do not actually answer the question set and they would easily get the full marks if they added just one line to present a clear answer to the actual question.

- Candidates must be reminded that to achieve top marks in questions (d), they must make reference to the text. Encourage candidates to use quotation marks, or make references to the paragraphs or texts.
- Part (d) answers also require candidates to apply and develop the economic theory that is relevant to the text. It is not enough to simply mention the relevant theory; answers which reach the top band must illustrate that the candidate can clearly use/apply that theory. Candidates need to show an examiner that they have studied an economics course, not simply that they can use some economic words that appear in a question or in the text. One of the best ways to develop economic theory is to use and illustrate an economic model. Wherever possible, diagrams should be used in part (d) responses. If candidates have drawn a diagram in part (b) or (c) that is relevant, candidates may refer back to the diagram.
- Candidates must be aware of the different command terms that may be employed in part (d) questions and the evaluation/synthesis skills that are being tested. The synthesis/evaluation command terms are 'compare', 'compare and contrast', 'discuss', 'evaluate', 'examine', 'justify', and 'to what extent...' Each of the command terms has an explanation of the depth required in the response given by the IB in the syllabus guide and candidates and teachers need to be aware of these.
- Theory provided in part (d) questions must be directly linked to the text provided to avoid delivering a pre-learned mini-essay. Candidates should be encouraged to fully 'engage' with the text, in order to be able to apply the theory.
- Examiners are concerned at the extent to which candidates are uncritically paraphrasing/repeating the texts in their part (d) answers. Candidates should be encouraged to think critically about the information in the text.

## Higher level paper three

### Component grade boundaries

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 6	7 - 12	13 - 18	19 - 25	26 - 31	32 - 38	39 - 50

### General comments

The November 2017 paper was slightly easier than that of November 2016. Candidates demonstrated ability to perform quantitative techniques, although their success in this regard

varied with the complexity of the required calculations. The majority of candidates were able to demonstrate understanding of economic theory relating to the quantitative techniques, although there remains a tendency to state rather than explain and to answer without the expected degree of precision.

Quantitative analysis relating to Section 1.5, The Theory of the Firm, remains a weakness for many candidates, while the manipulation of demand and supply functions and analysis of the consequences of government intervention were strengths. While candidates were able to recognize relationships between variables, such as price and quantity supplied, few were able to explain the causal relationship.

Understanding of macroeconomic theory was generally sound, with a high degree of accuracy achieved in quantitative techniques. Stronger candidates achieved high marks, whereas others demonstrated a tendency to make unsupported statements, related to issues such as the relationship between GDP growth and exports, and the process by which an economy may move to long run equilibrium following a change in aggregate demand.

Quantitative techniques in international economics remain a challenge for many candidates. Basic calculations were done well, although calculation of consumer surplus remains a weakness.

It remains the case that candidates are penalized for incorrect rounding and omission of appropriate units. The trend in recent sessions has been one of fewer penalties for such errors, but this session has seen an increase.

## The areas of the programme and examination which appeared difficult for the candidates

### Section One - microeconomics

- Explanation of the conditions under which a perfectly competitive firm would shut down
- Marginal analysis – recognition that if  $MR > MC$ , the firm should increase output.
- Explanation of the reasons for causal relationships, such as the Law of Supply
- The distinction between tax revenue and producer revenue when analysing the effect of PED on tax revenue following the imposition of an indirect tax

### Section Two - macroeconomics

- The relationship between GDP growth and exports
- The long-run equilibrium position (assuming a monetarist/new classical model) following a change in aggregate demand
- The distinction between different types of supply-side policies.

**Section Three – international economics**

- The relationship between GDP growth and exports
- Distinction between the effects of different forms of trade protection.
- Calculation of consumer surplus, and changes in consumer surplus, from a trade diagram
- Calculation of export revenues of foreign producers following the imposition of a quota

## The areas of the programme and examination in which candidates appeared well prepared

### Section One - microeconomics

- Manipulation of demand and supply functions
- Plotting demand and supply curves
- Recognition and application of the profit maximisation condition for a perfectly competitive firm

### Section Two - macroeconomics

- Calculation of average tax rates
- The relationship between indirect taxation and equity
- Measures which could be taken to reduce inequality

### Section Three - international economics

- Calculation of import volume/value under free trade
- Calculation of exchange rates
- The relationship between imports, exports and the balance of trade
- The effects of a currency depreciation
- The benefits to domestic producers of trade protection

## The strengths and weaknesses of the candidates in the treatment of individual questions

### Question One

(a)

- (i) Generally well-answered, with weaker candidates referring to low barriers to entry rather than no barriers, or providing a vague answer such as “it is price competitive”. Some candidates referred to outcomes, such as short or long run profitability.
  - (ii) The majority of candidates were able to recognize that the Law of Supply results in a positive coefficient of price in the supply function, but few outlined a possible reason for producer decisions in this regard.
- (b) Few candidates were unable to perform this calculation, although many provided incorrect units or omitted them altogether.

(c)

- (i) Generally well-answered.
  - (ii) Generally well-answered. Most candidates who could not plot the curves correctly nevertheless managed to produce an intersection consistent with the answer to part (b).
- (d) The majority of candidates recognized that as demand becomes more price elastic, the tax revenue arising from the imposition of an indirect tax will become smaller. However, there was evidence of much imprecision in responses. Explanation of elasticity often failed to refer to proportionate changes, while many candidates discussed differences in producer revenue with different degrees of elasticity, without referring to tax revenue. There was also a significant tendency to focus on price-inelastic demand only, whereas comparison with price-elastic demand could make the comparison clearer. Furthermore, many candidates referred to tax revenue increasing or decreasing, suggesting a change in the rate of taxation, while the question referred to the imposition of a tax. Others focused on the incidence of the tax rather than the tax revenue. Finally, a small proportion of candidates neglected to provide and incorporate an example.
- (e)
- (i) The majority of candidates were able to recognize the correct type of tax, although a significant minority could not do so.
  - (ii) Stronger candidates were able to recognize that the change in coefficient would result in a steeper supply curve, but few were able to show that the change in slope represented a greater amount of tax as price increased.
- (f)
- (i) The majority of candidates were able to draw the new supply curve \$3 above the original, although some made the careless error of drawing it \$6 above.
  - (ii) There were many instances of OFR (Own Figure Rule) here. Candidates who had drawn one of the curves inaccurately, or who had been unable to draw the “supply plus tax” curve accurately, were still able to achieve marks for calculations under the OFR provision. While many candidates were able to perform the calculations, some did not understand the difference between consumer expenditure (total revenue) and producer revenue. There were many instances of incorrect units used in responses to this question. Candidates who calculated their third answer by subtracting tax revenue (or producer revenue) were fully rewarded.
- (g)
- (i) The majority of students were able to sketch an MC curve which cut the \$20 price line from below. However, some sketched such that \$20 was the minimum MC, not realizing that in this case producing at  $q^*$  would not maximise profit/minimize loss.
  - (ii) The majority of candidates were able to sketch ATC above \$20, with an approximately accurate intersection with the MC curve.

- (h) A significant proportion of candidates provided a response that the firm should reduce output “in order to reduce MC”, demonstrating an inadequate grasp of marginal analysis.
- (i) Responses to this question were generally disappointing. Well-prepared candidates were able to show, with reference to an accurate diagram, that, if  $P < AVC$ , losses would be reduced by shutting down. Some also explained why it would be worth producing in the short term if price were below ATC but above AVC. However, many candidates argued that the firm should shut down whenever  $P < ATC$ , and did not refer to AVC. Many incorrect AFC curves were sketched, while explanations that “the firm will not be able to cover all its fixed and variable costs” were common.

### Question Two

- (a) Generally well-answered, although omission of \$ or million was common.
- (b)
- (i) Generally well-answered
- (ii) Although stronger candidates were able to calculate the consumer surplus accurately, many calculated the consumer surplus “without trade” rather than “free trade”. Some candidates calculated the area of a rectangle and did not divide by 2, while others attempted to provide a “per unit” answer
- (c)
- (i) Although the majority of candidates recognized the difference between quotas and tariffs, and most identified that tariffs result in revenue for the government, responses were generally imprecise. The possibility of “quota revenue/rent” or the reason why a quota may not earn revenue for the government, was explained by a minority of candidates.
- (ii) The majority of candidates were well-prepared to draw a quota diagram, although some were careless in applying the information that the quota would be set at “50% of initial import volume”
- (iii) Most candidates earned the mark here, some with OFR applied.
- (d) This straightforward question was well-answered, with the majority of candidates able to use the data effectively. However, a significant number of responses gave 70m kg as the final level of domestic output, rather than 45m kg, and so could not earn full marks.
- (e)
- (i) The calculation was generally well-answered. Some candidates presented the solution as  $\text{€}89 = \text{FD}.35$ , rather than  $\text{€}1 = \text{FD}0.39$ . Many candidates forfeited one mark as they neglected to round to 2 decimal places, per instructions.



- (ii) Responses were generally disappointing. Many candidates calculated the final consumer surplus incorrectly, failed to convert to FD or neglected to show the change as negative. Those candidates who had calculated the initial consumer surplus incorrectly, or who had drawn an incorrect diagram, were able to benefit from the Own Figure Rule.
- (iii) Candidates were generally able to recognize that the initial export revenue of foreign farmers was equal to the initial import spending calculated in part (a), and earned a mark for this. However, while many candidates performed the calculation correctly, a significant number failed to incorporate the price increase when calculating final export revenue
- (f) It was pleasing to see that the majority of candidates recognized that a depreciation of the FD would occur in this case, and most of these were able to explain clearly one advantage and one disadvantage. Weaker candidates tended to state rather than explain. For example, several responses stated that “exports would become cheaper” without explaining the benefit of this for the Fairsea economy.

### Question Three

- (a) Generally well-answered, with some careless use/omission of units. Weaker candidates were unable to identify which data to include, trying to incorporate both income and expenditure in addition to transfer payments.
- (b) Although there were some careless errors, such as adding a negative net factor income, most candidates earned full marks. Those who erred in part (a) were able to benefit from the Own Figure Rule in part (b).
- (c)
  - (i) The majority of candidates are able to use the GDP deflator to calculate real GDP. However, a small minority multiplied nominal GDP by the deflator, while there were many rounding errors.
  - (ii) Responses were generally accurate, although rounding errors were again very much in evidence. A small minority used the 2013 figure as the denominator when calculating the rate of growth.
- (d)
  - (i) The responses to this question were generally disappointing. Stronger candidates were able to show that economic growth, resulting in higher income, would lead to an increase in imports, worsening the balance of trade. Reduced export competitiveness as a result of growth-induced inflation was also well explained. However, many candidates stated that economic growth would lead to more exports, and hence an improved trade balance. This approach was not accepted unless the candidate made clear that this would be the case if under the condition of export-led growth.

- (ii) Most candidates were able to identify one other possible consequence of growth, and earned the mark.
- (e)
- (i) Responses were generally good. Candidates calculated the average tax rates and were able to relate their answers appropriately to equity. Weaker candidates referred to “the amount of tax paid” decreasing, rather than the percentage of income paid, while a significant number could not achieve full marks as there was no reference to equity.
- (ii) Generally well-answered. A minority earned one mark only as a result of providing two different forms of welfare payment.
- (f)
- (i) The majority of candidates were able to shift the AD curve to the right by \$25 million.
- (ii) Although stronger candidates recognized the long run equilibrium output at \$30 million, resulting in a long run APL of 220, the majority did not, indicating a weak grasp of this area of macroeconomic theory.
- (iii) Many responses, from candidates without a grasp of the relevant theory, were inappropriate and invalid. However, explanations provided by stronger candidates were generally sound, although often lacking in precision. It was pleasing to see some candidates refer to an inflationary gap placing upward pressure on wages, thus increasing costs of production and shifting SRAS to the left. It was, however, common for the explanation of the mechanism to be incomplete. It was clear that many candidates could draw the relevant diagram but were not sure why the SRAS curve shifted, or why it would settle at an APL of 220.
- (g) A wide range of supply-side policies was presented, with a significant proportion being policies other than those which are incentive-based. It was common for students to identify an appropriate policy without outlining how it would impact long run aggregate supply.

## Recommendations and guidance for the teaching of future candidates

- Students must be clear about the meaning of different command terms. In particular, they should be taught that it is not sufficient to state a concept, reason or factor when required to outline or to explain.
- Students should be provided with regular opportunities to discuss the significance of concepts, relationships and conditions encountered during the course. They should examine why relationships and conditions hold and how concepts may be applied. When analysing change, it is important to understand why a curve might shift rather than simply knowing that it does. In the study of a Group 3 subject, students should

focus on the reasons for economic decision making by individuals and groups. For HP3 there may be a temptation to focus solely on knowledge, understanding and skills, but this is neither appropriate nor sufficient. Weakness in this regard was particularly evident in question 3, relating to the monetarist/new classical macroeconomic model.

- Teachers are again encouraged to use real data, such as that from the World Bank, to support learning in class.
- Candidates should be reminded to show units and round correctly. It would be helpful if teachers could insist on rounding to 2dp throughout the course, not just in assessment activities. Units are not required for intermediate workings, but must be accurate for final answers.
- Candidates should be reminded to take care when performing calculations. When attempting to determine a change, the initial figure would be subtracted from the final figure. If the answer is negative, then this should be shown clearly by a negative sign or reference to a decrease.
- For questions relating to section 1.5, the Theory of the Firm, it is clear that many candidates are proficient in explaining what happens or what is predicted in a variety of situations without being able to explain the reason. Evidence of this was seen in question one, where the majority of students could explain that minimum AVC is the short term shut down price, but could not explain why. Candidates should be encouraged to think and analyse critically in the study of all topics.
- Candidates should be reminded to read questions carefully, before and after attempting the question. In question 2eii, many candidates neglected to convert US\$ to FD, thus forfeiting a mark.
- Teachers should ensure that candidates practise calculations. Many candidates lost marks because of careless errors, such as calculating the area of a rectangle rather than a triangle for consumer surplus, or using the final figure as denominator when calculating a percentage change.
- Candidates should be reminded that GDP is a measure of output: transfer payments do not correspond to real output, so should not be included in a calculation of GDP.