

Economics

Timezone 1

To protect the integrity of the examinations, increasing use is being made of time zone variants of examination papers. By using variants of the same examination paper candidates in one part of the world will not always be taking the same examination paper as candidates in other parts of the world. A rigorous process is applied to ensure that the papers are comparable in terms of difficulty and syllabus coverage, and measures are taken to guarantee that the same grading standards are applied to candidates' scripts for the different versions of the examination papers. For the May 2019 examination session, the IB has produced time zone variants of Economics HL and SL Paper 1.

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Grade boundaries

Higher level overall

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 13	14 - 26	27 - 36	37 - 47	48 - 59	60 - 70	71 - 100

Standard level overall

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 12	13 - 24	25 - 39	40 - 51	52 - 62	63 - 74	75 - 100

Higher level / standard level internal assessment

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 6	7 - 12	13 - 20	21 - 25	26 - 31	32 - 36	37 - 45

Higher level paper one

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 6	7 - 12	13 - 17	18 - 22	23 - 27	28 - 32	33 - 50

Standard level paper one

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 5	6 - 10	11 - 18	19 - 24	25 - 29	30 - 35	36 - 50

Higher level paper two

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 6	7 - 12	13 - 15	16 - 19	20 - 24	25 - 28	29 - 40

Standard level paper two

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 5	6 - 11	12 - 16	17 - 21	22 - 25	26 - 30	31 - 40

Higher level paper three

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 5	6 - 10	11 - 15	16 - 22	23 - 28	29 - 35	36 - 50

Higher level/Standard level internal assessment

The range and suitability of the work submitted

Most centres are now quite comfortable with the online assessment of the internal assessment (IA). It was very pleasing to see that the majority of centres did upload both the commentaries and the articles, as in the last few exam sessions 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 without a penalty for the student, as examiners have been instructed not to search for missing articles but mark to each commentary based on what has been provided (using just the title of the article to give them a hint as to the content). 1 mark is deducted from Criterion F and then the other criteria are unlikely to be awarded top marks because they have no knowledge of the relevance of the commentary to the article.

The order of the three commentaries was sometimes uploaded in a different order to the 3/CSE form and the order in which marks awarded by the teachers were given. This makes it difficult for the moderator to match the marks given by the teacher to each commentary. It would be a good idea for students to label each commentary with a number that matches the 3/CSE to help solve this problem.

Some centres still included individual and summary cover sheets, which is not necessary. The 3/CSE form has replaced these and sometimes it was incorrectly filled in. Some centres also exposed the name of the student and the centre name and number, which should not happen. The full URL of the chosen articles should be stated on the 3/CSE form also and some centres did not do this.

Quite a few teachers did not give any reasons/comments as to why they awarded marks. Sometimes the comments were very short and did not assist the moderator in any way as to why marks had been given, but also some wrote excessively long comments, which are unnecessary. There were noticeable signs that many centres do now apply the assessment criteria appropriately, but there are still quite a few centres where this is not the case and the marks awarded by the teacher were too harsh or, more generally, too generous. The majority of 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, such as articles being older than one year when the commentary was written and a student using the same source more than once.

The majority of candidates assessed had completed 3 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. Candidates in some centres had 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 is not appropriate or the intention of the assessment. The IA is not a research assignment. Articles chosen should have enough content for a student to be able to write a commentary that addresses all the assessment criteria, especially an analysis and evaluation. 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. Also the maximum word count is 750 words, although there is no minimum word count and some teachers are penalizing their students if the word count is less than 650 words, which is not appropriate. If a commentary is longer than 750 words the moderator will stop reading at 750 words so the student could lose marks from their analysis and evaluation.

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.

In a few cases articles uploaded were incomplete and this situation means that a mark is lost from Criterion F. 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 whole article should be provided in the examining language.

A few centres had students only write commentaries based on articles about their own countries and this is not recommended as this is the International Baccalaureate so at least one article, if not all three selected, should be about different countries.

Candidate performance against each criterion

Criterion A

Most candidates included at least one relevant diagram, although these were quite often not well explained. Too often diagrams had been copied from textbooks or websites and labelling of axes etc was generic. A few candidates had even pasted a photograph of a diagram taken from a textbook. Even though most were referenced it was rare 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 for this criterion if they only provide one. 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 or had a legend and extra words above, those allowed have to be included in the word count. Some students referred to colours on the graphs but were seen as only black and white. Some students had used data tables and graphs taken from the article or other articles and they had been internally marked as diagrams; these are not recognized as diagrams by the assessment criteria so 0 marks were awarded if these were the only diagrams included.

Criterion B

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 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 and are 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 at least 1 mark.

Criterion C

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 applying 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 in this criterion.

Criterion D

Analyses were usually attempted and a range of marks was awarded but too often the analyses were 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. Quite a large number of students just wrote about the theory, often giving advantages and disadvantages or alternatives to policies, seeing these as evaluation, that were irrelevant to the article. Many commentaries did have 'appropriate' analyses but were unable to achieve full marks, as they were not 'effective'.

Criterion E

It was very pleasing to see that most students did attempt to evaluate, although quite frequently 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 should only be used as a support, not as the basis of the evaluation and it should not actually be necessary to have any extra support. Some articles selected had already been analysed and evaluated, so the students do not actually synthesize their own analysis and thus they cannot 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

The majority of candidates did meet the rubric requirements, but some did exceed 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 for this criterion. 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 or content with no relevant economic theories or concepts, and again 1 mark can be lost for this.

Recommendations and guidance for the teaching of future candidates

Students should take at least 6-12 months to complete the portfolio of 3 commentaries. The IA 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. It is also recommended that students are encouraged 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 are to guide students but not to 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 submission and the second submission must be final.

It is recommended that students download and save articles directly with the source visible as honesty is sometimes compromised if sources are just named. Also, the details of the sources in each file should match 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, apply 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. These comments should not be addressed to the student or just comments about the student's ability but purely as to why marks have been given for each commentary.

It was obvious sometimes that the teacher had not checked the article and commentary submitted 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 submitted commentary.

Referencing of the article itself should be on the 3/CSE and it is very helpful, as mentioned above, if the article is directly taken from the website, not a copy and pasted one or a Microsoft word document. Candidates MUST include the full article with the commentary even if only a section of the article is being used for the commentary. Diagrams need to be presented appropriately, carefully labelled as to the content of the article and to 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 there should only be one written feedback given on the first writing 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. Also, some teachers gave 1 mark only for Criterion B if definitions were not given for terms used. Teachers must ensure that they fully understand the marking criteria and also that the students themselves are aware of these and understand them. It can be quite obvious sometimes that either or both the student and teacher are not aware of how the assessment criteria are applied.

Higher level paper one

General comments

The examination was well received by the great majority of the centres that completed the feedback forms. The general opinion was that the questions were well presented, the economics syllabus was well covered, and the difficulty of the questions was similar to the difficulty in previous exam sessions.

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

- The law of diminishing returns and the relationship between diminishing returns and the short-run cost curves.
- The difference between the slope of a straight-line demand curve and the coefficient of the price elasticity of demand.
- The differences between the Keynesian and the monetarist/new classical model and the major assumptions underlying each of the two models.
- The conceptual difference between equity and equality.
- The concept of efficiency.

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

- The monopoly market structure and profit-maximization.
- Elasticity and its applications. The relationship between price elasticity of demand and total revenue.
- The AD/AS diagram for both the Keynesian and the monetarist/new classical models.

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

Section A

Most of the candidates answered Question 2 in this section. The first parts of both questions in section A were somewhat technical in nature and could be very well answered by well-prepared candidates with the help of hypothetical/numerical examples. Some candidates relished the opportunity to show their technical prowess and the understanding of the subtle mathematical details behind the theory. However, these candidates were considerably fewer than the candidates who struggled to explain precisely the relevant economic theory.

Question 1

(a) Many candidates were able to either explain the law of diminishing returns or draw correctly the short-run cost curves for a firm. Only a few were able to produce a complete answer by explaining the crucial link between diminishing marginal product and increasing marginal cost. The best candidates were able to support their answers with a numerical and/or hypothetical example of diminishing marginal product (increasing marginal cost). Some candidates confused diminishing marginal returns with diminishing marginal utility. Other candidates got off-track by confusing diminishing marginal returns with diseconomies of scale.

(b) The great majority of candidates were able to draw a monopoly diagram and correctly determine the profit-maximizing level of output. Considerably fewer candidates were also able to show (correctly!) on the diagram the levels of output associated with allocative and productive efficiency. Some candidates were able to identify either the positive or the negative features of monopoly but did not explore the both sides of the issues as the question implies.

Question 2

(a) There were many candidates who were able to explain price elasticity of demand in principle but were not able to apply the economic theory to answer this particular question. A common mistake was to correctly explain why different products have different price elasticities of demand and/or to show the different elasticities on two separate diagrams. However, in this question part it is stated explicitly that elasticity “along... a straight-line demand curve” should be explored. Some candidates needlessly drew a supply curve on the diagram for this question and incorrectly assumed that at the intersection of the supply and demand curves the price elasticity of demand is necessarily equal to one. Some candidates were able to provide excellent numerical examples and/or technical (mathematical) explanations to demonstrate how the coefficient of the price elasticity of demand should vary along a straight-line demand curve but did not link the mathematical calculations to relevant economic theory.

(b) The majority of the candidates seemed well prepared to answer this question. Still, there were some cases where the candidates were not careful enough and drew a market supply curve in addition to the market demand curve (implying a competitive market) while (correctly) explaining that a given (single) firm should set a price for its product at the point where price elasticity of demand is equal to one in order to maximize its total revenue. Given the specific demands of the question, such use of diagrams was not usually considered a significant error. However, such candidates could not get credit for clear understanding and application of relevant economic theory.

Section B

In this section Question 3 was slightly more popular. Both questions contained ample opportunity for the candidates to make connections between the subject of economics and the theory of knowledge (TOK). The relationship between each subject and theory of knowledge is of crucial importance to the Diploma Programme, but surprisingly few candidates grasped the opportunity to make such connections.

Question 3

(a) The majority of candidates were able to define deflationary gap and explain how a decrease in aggregate demand would lead to equilibrium at a level of real output below the full employment level of output. The candidates which provided better answers were able to link their answer to the components of aggregate demand but often could not give plausible reasons why any of the components would decrease. In the best answers the candidates were able to give such reasons due to their knowledge of historical episodes where aggregate demand has decreased because of specific events in the economy. Unfortunately, some candidates focused on explaining deflation and their explanations, even though they were correct, were considered only marginally relevant given the specific demands of the question.

(b) This question part provided candidates with excellent opportunity to explore the assumptions and the world views behind the two major macroeconomic models – the Keynesian and the monetarist/new classical models. While the great majority of candidates were able to draw diagrams to illustrate both models, many candidates struggled to explain the diagrams in detail and apply them to answer the question. Even in cases where the diagrams were dynamic in nature, and seemed promising at first sight, the explanations were either vague or superficial. Some candidates tried to combine both paradigms in a

single diagram but the result was either an incomplete answer or a complete but rather complex diagram that was confusing for both candidate and examiner. Combining the two models in a single diagram to answer this question is, generally, not a good idea because of the subtle differences between the meaning of “full employment” in the monetarist/new classical and the traditional Keynesian world view.

Question 4

(a) Surprisingly, many candidates focused completely on government spending and its effect on gross domestic product (and the economy at large) while ignoring the “equity” component of the question. Since there are different possible valid interpretations of the meaning of equity, a very specific and particular definition of the term was not expected. However, candidates were expected to provide some working definition at the beginning of their answers and to use this definition consistently to answer the question. With that being said, there were some interpretations of the meaning of equity which were considered unacceptable in the context of the IB economics syllabus. For example, some candidates made references to equity in the sense of “owner’s equity” in a business and this particular interpretation of the meaning of equity led those candidates astray. Quite a few candidates considered “government spending to promote equity” in the economy to be the same as “government subsidies to help small firms (without economies of scale) compete with larger firms (with considerable economies of scale)”, and this approach was also deemed unacceptable.

(b) This was a rather broad question and allowed for various valid approaches. There are different possible valid interpretations of the meaning of equity and efficiency in the context of the IB economics syllabus. There are also many government policies and all of them may be reasonably considered to affect equity and/or efficiency in one way or another. Therefore, neither particular definitions of the relevant economic terms nor a particular example of government policy (or set of policies) were required for top marks. However, it was expected that candidates should provide acceptable working definitions of equity and efficiency in the beginning of their responses, then use these definitions to link equity and efficiency to particular government policies and to evaluate these policies. Candidates who ignored efficiency and equity (or only mentioned them in a vague manner) and proceeded to evaluate government policies in general got little credit for their responses to this question item. The best candidates were able to give acceptable definitions of efficiency and equity at the beginning, to use these definitions consistently throughout the response, to identify appropriate government policies to promote equity, and to evaluate both the positive and negative effects of those policies on efficiency.

Recommendations and guidance for the teaching of future candidates

Teachers should be aware that any part of the syllabus can be (and eventually will be) examined and should ensure that all learning outcomes from the IB economics syllabus are covered thoroughly in class.

When teaching price elasticity of demand, teachers should emphasize that the slope of a straight-line demand curve is not the same as the elasticity coefficient. Students should be aware that demand can be price inelastic at some points even on a rather flat demand curve. Similarly, demand can be price elastic at some points even on a rather steep demand curve.

Teachers are advised to help each candidate to prepare his or her own glossary of key economic terms and appropriate examples. Precise definitions of all key economic terms in the IB economics syllabus can be found in many IB economics resources. Good microeconomic examples can be found by candidates while they search for suitable articles to prepare their internal assessment portfolios. Good macroeconomic examples can be found in the natural experiments provided by history and can be integrated by teachers in their teaching of the IB economics syllabus.

Understanding of the specific demands of the questions is crucial. Teachers must emphasize to the students the importance of careful reading of the exam questions and clear understanding of the specific demands of each question. Teachers might allocate some class time for discussion and analysis of paper 1 questions from past examinations.

Standard level paper one

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

In general terms, there were two areas in which candidates struggled. Firstly, many students were unable to provide realistic and well-developed examples. Secondly, many candidates struggled to provide detailed and well-supported evaluation in their responses.

In addition, there were a number of specific areas of the programme which caused difficulties:

The concepts of consumer surplus and producer surplus were often not understood at all. Many candidates confused consumer surplus with excess demand and producer surplus with excess supply. Some could diagram the concepts but were unable to explain the terms with any degree of accuracy.

The concepts of marginal private benefit and marginal private cost were also largely misunderstood. The term marginal, meaning additional, was not often present in the definition of either of the terms. $MPB=MPC$ representing optimal allocation of resources was also not well understood, with many candidates gaining little credit for their explanations.

The term 'direct provision' was one with which candidates often struggled, with many failing to give a precise definition of the term or the link with merit goods. It was often confused with a subsidy. Many candidates were unable to explain how fiscal policy reduces unemployment. They could diagram the shift of the AD curve, but did not explain the link to increasing the demand for labour and the reduction in unemployment.

Productivity is a key economic indicator, but a majority of the candidates attempting the question on this were unable to define productivity with any degree of accuracy. Most gave a general discussion of productivity without being able to explain what it is and how it helps achieve economic growth. While the concept of economic growth was widely understood, many candidates struggled to explain whether achieving economic growth is always at the expense of other macro objectives. Many just explained the other macro objectives without relating them to the achievement of economic growth.

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

The better candidates appeared to have a clear understanding of the dynamics of aggregate supply and demand analysis and clearly understood the necessity of defining key terms, providing developed examples and integrating evaluation and analysis into the response.

Most candidates showed understanding of price ceilings and were able to draw an appropriate diagram.

There were some accomplished explanations of why an increase in a country's exchange rate is likely to cause a decrease in AD.

Fiscal policy seems to have also been well-understood, with many candidates being able to explain how expansionary fiscal policy increases aggregate demand. The concept of economic growth was widely understood as most candidates were able to explain what it is and to diagram it.

There was some very good use of diagrams.

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

Question 1

(a) This question was not answered well by most candidates who attempted it. Many confused consumer surplus with excess demand and producer surplus with excess supply. It was difficult for many candidates to give an accurate definition or explanation of the terms. Those that did understand the concepts provided precise definitions and were able to diagram the concepts well. However, candidates often struggled to give examples to illustrate the concepts.

(b) Many candidates struggled to accurately define MPB and MPC, with the word “additional” often being absent. Few were able to analyse why this equation might represent optimal allocation and it was not uncommon for candidates to ignore the explanation and proceed straight to the evaluation by asserting that $MSC=MSB$ is optimal. The diagrams to show externalities were often very good, with some good examples of the existence of externalities being given.

Question 2

(a) It was encouraging to see how many candidates were able to discuss price ceilings and provide a diagram to illustrate the concept. Usually one reason (for example, to help those earning low incomes) was given but often it was not well-developed. Too many just used the example of “essential foods” or “rented housing” without providing specific and realistic examples. A common mistake was to spend too little time on why price ceilings may be imposed, which was the question, and to spend too much time on the effects of price ceilings, which was not the question. Some confused price ceilings with price floors.

(b) This question proved to be very problematic for several candidates who attempted it without having any clear understanding of the term “direct provision”. Most could not specifically explain what the term means. The term “merit goods” was widely understood, however, and examples of merit goods were readily provided. Several candidates were able to consider alternatives to direct provision, but the term was often confused with subsidies with the subsidy diagram being provided. It was not uncommon for candidates to devote lengthy, but largely irrelevant, discussion to demerit goods.

Question 3

(a) Most candidates seemed to be familiar with AD/AS analysis and could use a diagram with relative ease. Most understood how a rise in the exchange rate caused exports to be more expensive, but few related it to an increase in the demand for imports, both of which would decrease AD. Few candidates were able to provide specific examples of economies that had experienced the situations mentioned in the question.

(b) Most candidates had a fairly good understanding of what fiscal policy is and how expansionary fiscal policy is achieved, but many were unable to explain specifically how it reduces unemployment. Many could diagram how AD shifts rightwards, causing economic growth, but were not able to explain how this growth leads to a decline in unemployment. Many could evaluate fiscal policy in general, but not specifically as it relates to a reduction in unemployment. Often there was no comparison between fiscal policy and other policies to determine which was the best policy to reduce unemployment. In a minority of cases, there was confusion between fiscal policy and monetary policy.

Question 4

(a) A majority of candidates did not understand the term ‘productivity’. Some were able to explain how it is achieved through technological advances, but few were able to accurately define the term. Some were

able to diagram the LRAS curve or PPC curve shifting outwards but could not accurately explain why they were shifting outwards. Examples of improved productivity in relation to a particular economy were almost never given. There was also much confusion between the terms 'production' and 'productivity'.

(b) This question was not answered well by most of the candidates who attempted it. The concept of economic growth seems to have been reasonably well understood, but few were able to relate economic growth to the other macroeconomic objectives. Often the question was answered as if it were, "What are the causes of economic growth," but not directly answering the question posed. Some could analyse the statement and explain why the achievement of economic growth does conflict with other objectives, but most could not evaluate why economic growth can be achieved without conflicting with the other objectives.

Recommendations and guidance for the teaching of future candidates

- Candidates need to begin their responses with precise definitions that demonstrate their knowledge of key economic terminology.
- Candidates should be encouraged to use more diagrams in their work. All pieces of extended writing should include at least one diagram. Diagrams are not always incorporated into the text of the answer or applied correctly. It would also be useful if candidates were encouraged to fully label the diagrams that are provided. Axes should be accurately labelled as well as the curves.
- Candidates should be encouraged to illustrate their answers with 'real world' examples, to show that they really can apply their economic theory. They will not be able to reach L4 without a developed example.
- In general, in part (b) questions, when writing essays, students should get into the habit of providing relevant definitions initially, drawing a relevant diagram, incorporating the diagram into the text, giving appropriate explanation and providing effective evaluation. All explanation or all evaluation in part (b) cannot be awarded beyond Level 2. Both are required to move beyond Level 2.
- Teachers should encourage candidates to write their essay questions in two distinct parts, labelling each as (a) and (b). There were many candidates that wrote the two parts as one answer.

Higher level paper two

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

- Definitions: Many candidates lost marks for vague or incorrect definitions, particularly dumping, investment and productivity.
- A significant number of part (b) and (c) questions were unfocused and too long, particularly Q1(b).
- Part (d) questions: Part (d) questions proved problematic for many candidates. Many answers lacked evaluation. The command term 'evaluate' was not fully understood with the result that relatively few answers reached L3.
- Development questions were often treated in a simplistic and descriptive manner.

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

- The majority of candidates showed understanding of economic theory.
- Many candidates produced clear, accurate diagrams with the exceptions outlined elsewhere.
- Stronger candidates gave focused responses to parts (a), (b) and (c) which allowed them time to provide detailed responses to part (d) questions.

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

Question 1

(a)(i) Many candidates had no problem in defining 'dumping' accurately in terms of exporting goods at below cost of production. However, a significant number produced imprecise or inaccurate definitions *eg*: "a price below the market equilibrium"; "a price below the world price" or "exporting at a low price".

(ii) The key point in defining variable costs is that they are costs that vary with output. Simply giving examples of variable costs or stating that "they are costs that are not fixed" is not acceptable as an accurate definition.

(b) Diagram: Most candidates were familiar with the tariff diagram, producing well constructed and accurate diagrams. Labelling of diagrams, however, still produces many problems. It should be emphasized to candidates that inaccurate labelling results in a loss of marks. The most common inaccuracy was the labelling of 'world supply' as 'world price'. Other unacceptable labelling included 'quantity demanded on the horizontal axis' and 'price level' on the vertical axis. Explanation: Many candidates disregarded the wording of the question *ie* the effect of the tariff on the consumer and used the question as a vehicle to explain all features of the diagram, explaining the effects on the Canadian producers, the US producers and the government, *etc*. While including other stakeholders will not lose marks, it will cost the candidate a considerable amount of time that could have been more usefully used on other questions.

(c) Generally, this was well answered. Candidates identified that the imposition of the tariff increased costs of production to house builders and that this was a condition of supply, causing the supply curve to

decrease. The best answers explained the impact on the market in a simple and concise interpretation of the diagram.

A major error by a small minority of candidates was to state that the imposition of a tariff would decrease demand. By decreasing the demand curve any explanation is likely to be inaccurate.

(d) This question offered candidates the opportunity to develop points made in parts (c) and (d) as well as examining the impact on other stakeholders.

Use of text: The best candidates used the text appropriately in support of economic analysis. Less successful candidates relied heavily on quotes from the text with little in the way of development or value added.

Analysis: While most candidates identified the relevant stakeholders, too often they produced a generic list of the effects of tariffs on stakeholders. Many candidates took a descriptive approach, adding little value to the content of the text. Where there was analysis sometimes, it often lacked depth, relying on statements without explanation/reasoning. Such an approach is unlikely to achieve more than L1. There were, however, some outstanding answers, highlighting clear understanding coupled with a sophisticated approach.

Evaluation: There was limited effective evaluation in many of the answers. Many candidates appeared to think that evaluation involves summarising the points made in the body of the answer. On occasions when evaluating many candidates did make realistic judgements eg "30 new jobs will significantly reduce Canada's unemployment rate". There were, however, examples of outstanding evaluative comment.

Question 2

(a)(i) Most candidates defined the term accurately.

(ii) Generally accurately defined.

(b) There some excellent answers to this question with good, clear and accurately labelled diagrams coupled with a concise explanation. Most candidates explained the depreciation in terms of increased supply of rupees. A minority explained it in terms of decreased demand for rupees. Both were acceptable.

Weaknesses: incorrect labelling; failure to explain how the central bank might increase the supply of rupees (decrease demand); and a confusion between internal and external money supply.

(c) In many cases a current account deficit was only partially explained. Candidates often defined the current account in terms of the balance of trade only. Also, the current account was explained in volume terms rather than value.

Budget deficit was generally well understood and defined accurately.

(d) This question posed problems with many candidates focusing on how to reduce a current account deficit rather than on its consequences. Those that did attempt to discuss the effects did so superficially. Other candidates attempted to interpret the question in terms of exchange rates. While there was some relevance, such an approach was too narrowly based. The few candidates that did attempt to examine the effects often produced unbalanced answers with very few identifying any positive effects for Pakistan.

Question 3

(a)(i) Most students were able to define this term accurately.

(ii) Most students received 1 mark but a significant number failed to identify two points from the list in the markscheme to obtain 2 marks.

(b) There were some excellent answers where candidates identified two reasons from the text and explained them effectively. Other candidates, however, scored badly as their answers addressed the reasons why China (the country) invests in Bolivia rather than the MNCs. In other instances students copied sections of the text but with no added value.

(c) Overall it was evident that there was a good understanding of the concept of externalities but this was often spoiled by careless inaccuracies / omissions. Too often, on otherwise excellent answers, negative externalities or welfare loss was not identified on the diagram as required. Also the welfare loss was frequently inaccurately placed on the diagram. Most candidates used the negative externalities of production approach while a minority analysed in terms of negative externalities of consumption. Both were acceptable as long as the explanation matched the diagram. This was not always the case and on occasions there was a dis-connect between the diagram and explanation.

(d) Many candidates did not answer the question with few making a clear distinction between growth and development. The focus of a large number of answers was on how growth could be achieved, not the impact of the involvement of China on growth and development in Bolivia. The focus of many candidates was on growth, often ignoring development or simply stating "...leads to growth and therefore development". There were too many assertions/statements without reasoning or justification. This resulted in unbalanced and/or superficial answers, which resulted in a L1 or low L2 mark.

Question 4

(a)(i) This was surprisingly badly answered, often phrased in uneconomic terms *eg* "spending money in order to get a profit".

(ii) Again, surprisingly, weak definitions of this important economic term. The best that many candidates could come up with is that involves an increase in efficiency.

(b) This question was well answered overall. Diagrams were generally accurate although a minority of students lost a mark by omitting 'real' when labelling GDP on the horizontal axis. Another limitation on some answers was a failure to explain why AD increased *eg* explaining the effect of falling interest rates on consumption and/or investment and therefore AD. A small minority failed link the above analysis to economic growth.

(c) Many students lost 1 mark when defining economic growth re: Real GDP by not including 'real'. Also, many students relied on definitions of the terms without making a distinction between the concepts.

(d) Many candidates did not answer this question directly. Some answers were largely generic in nature with minimal reference to the text. Much emphasis was placed on what may cause economic growth and many directed the question to the role of government in generating growth. This was not the question. The extent to which growth will or will not generate development was barely addressed in some cases. The result was that many of the answers were unbalanced at best or irrelevant at worst.

Recommendations and guidance for the teaching of future candidates

- Ensure students can accurately and concisely define key economic terms.
- Ensure students label diagrams accurately.

- Encourage students to study the requirements of the question so as to identify what is required (to avoid long irrelevant answers as in Q1(b)). In short, produce concise, focused answers to part (b) and (c) questions.
- Practice answering part (d) questions so that students get to know how to use the text effectively when analysing and evaluating.
- Avoid pre-learned generic answers and focus only on the question presented.
- On a practical note ensure students write in black pen so as to avoid scanning problems (when a student uses coloured pens, examiners often cannot view the response or part of the response).
- When students use a laptop to write up answers it is best to integrate diagrams with the answers rather than attach them at the end of the response.

Standard level paper two

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 teacher feedback forms. It was considered to have appropriate syllabus coverage. The texts were considered to be accessible to the majority. There seemed to be few problems with time management.

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

Candidates continue to fare slightly better in Section A (International Economics) than in Section B (Development Economics). Some candidates had difficulties linking their answers in question 3(d) to the concept of economic development and, as per past exam sessions, many answers discussed economic growth when the focus was on economic development. Establishing the contribution of growth to development would have helped but that was often missing. Interestingly, the main issue with question 4(d) was a tendency to discuss the factors which could contribute to economic development rather than economic growth.

Almost all candidates know to keep the definitions brief, but some still over-elaborated on their answers to part (b) and (c) questions. Future candidates should be reminded to focus on the question asked and not provide other irrelevant information. This was particularly true for the tariff diagram. Almost all candidates now use the text in section (d), but not always effectively. They tend to repeat sections of the text with no further explanation or analysis or evaluation. A minority of candidates were also careless in the labelling of the diagrams, leading to the loss of marks.

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

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

There did not seem to be any noticeable preference this year for either question in section A but possibly a slight preference for Q4 in section B. The majority of answers reflected a sound understanding of the concepts tested. The candidates were quite comfortable with concepts from Units 1-3 in particular. Moreover, the diagrams drawn in part (b) and (c) questions were properly referenced and explained, especially for those which showed a degree of similarity to past IB papers. In a sense, one could say that students who prepared for the exam by going through the past papers could easily predict the requirements of many question parts.

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

Answers to most of the question parts within question 1 reflected sound economic analysis and application, especially for (d) where most candidate displayed a good understanding of the general theory on protectionism.

(a)(i) Unfortunately, most candidates did not reach L2. Those who were awarded L1 often referred simply to demand exceeding supply. An explanation that quantity demanded was greater than quantity supplied would have added precision to the definition.

(a)(ii) Most candidates exhibited knowledge of one factor which could contribute to structural unemployment. Some confused this type of unemployment with cyclical or frictional employment.

(b) Surprisingly, many candidates struggled with this question. A lot of diagrams illustrated a change in equilibrium, with supply or demand shifting, rather than a disequilibrium. Many candidates also failed to make use of the text. Some centres expressed concerns that use of data was required in a question part other than (d). However, the purpose of (b) and (c) remains application of simple concepts to the text/data provided.

(c) This was generally a well answered question. A few candidates addressed the welfare effects and/or impact on tax revenue, which was not required by the question. A common problem was a missing label for the world supply curves (e.g. S_w , $S_w + \text{tariff}$).

(d) "Discuss" requires candidates to offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

As for many past questions on tariffs, answers were often generic, going through the tariff diagrams and the 'standard' impacts on domestic production, imports, the price, etc. In such cases, the tariff diagram was over-elaborated on and lacked application to the text. It was not uncommon for answers to cite the infant industry argument, which was clearly not relevant in this case. Such answers reflect economic analysis but limited application to the text and would generally remain in level 2. Another common problem which kept answers in level 2 was that many candidates simply repeated the text or only slightly expanded upon what was presented.

A level 3 answer is one where the candidate applies economic analysis to the text. In this case, some good responses considered (with or without reference to an international trade diagram) that the tariff would increase the price of tinsplate steel and commented that this could contribute to cost-push inflation but since only 2% of all American steel was tinsplate, the impact would not be significant.

Question 2

Question 2 was generally well answered and probably had the most accurate definitions and diagrams of all the questions attempted for this paper.

(a)(i) Many candidates gave a good L2 definition. Those who were awarded L1 often had not specified that the increase in exchange rate was the result of changes in market forces (or that it was occurring under a

floating exchange rate system). This omission meant that the simple mention of an ‘increase in the value of a currency’ could refer to both an appreciation and a revaluation. In general, if a definition can apply to two concepts then it is a vague definition. This was also an issue in the last examination session.

(a)(ii) Most candidates gave a level 2 definition. Some candidates stated that monetary policy was the responsibility of the government rather than the central bank.

(b) Most candidates could draw and explain the diagram. As usual, some candidates used microeconomic labels for the axes but there seemed to be fewer of such cases. A more common problem was that candidates did not identify import expenditure as a component of AD.

(c) This question was not attempted as well. Labelling of axes remains a problem for exchange rate diagrams. Most candidates could shift the demand and/or supply curve appropriately but did not manage to provide a valid explanation. Many used the term “investment” loosely rather than refer to savings or speculative funds.

(d) “Discuss” requires candidates to offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

This was a generally well answered question. Most candidates correctly identified the impact on the various economic variables – although some candidates clearly struggled to explain the impact on the current account. Lower achieving responses were often those which discussed the direction of the economic factors identified without providing a balanced view of the impact of the appreciation of the rupee. For example, a rather obvious impact on output and employment is that firms that use imported factors of production could benefit from a stronger rupee but that argument was seldom presented.

Section B

Question 3

Question 3 was slightly less popular than the other Unit 4 question. Some candidates had clear difficulties understanding the concepts of tied aid and concessional long-term loans.

(a)(i) Few candidates provided two meaningful points to reach level 2. Many defined this concept as tied aid.

(a)(ii) On the other hand, most candidates could define this term accurately. Some, however, failed to make the connection to the adjustment for inflation and simply defined GDP.

(b) Most candidates were able to identify two disadvantages of tied aid for Bhutan, but a significant number merely described the disadvantages of receiving any form of aid and/or loans - indebtedness and dependency were two common disadvantages identified but those are not specific to TIED aid.

(c) The majority of candidates scored 2 marks for the explanation. Similar questions appeared in past papers and often, candidates could not link the increase in potential output to changes in quantity and/or quality of resources. This was less of a problem in this exam session. PPC curves were often drawn/shifted correctly, the appropriate labelling of axes was the only recurrent problem – we had a lot of “Real GDP”, “Price Level” and “number of university graduates” as labels.

(d) “Evaluate” requires candidates to 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 establish a clear link between specific policies and economic development – for example, explaining how the promotion of jobs in agriculture could lead to more citizens of Bhutan earning an income or leaving the informal sector. In particular, to achieve a level 3 mark, candidates should critically evaluate the contribution of the policy to economic development. In this case, one could point out that overreliance on the agricultural sector is a common problem of economically less developed countries. A rare few recognised that many of the policies were growth oriented.

It was encouraging that most answers reflected a good understanding of economic development. However, many struggled to add value to what was already in the text and connect the policies to development.

Question 4

Question 4 responses reflected good answers on (a), (b) and (c) but many misinterpreted (d) and evaluated the factors that contributed to economic development.

(a)(i) The majority of candidates could reach at least L1 by indication a specific monetary level of daily income but many still list the out-of-date figure “US\$1 a day”.

(a)(ii) This is a common and hence well-attempted definition.

(b) Most candidates could identify 2 reasons, but fewer could provide sufficient explanation. As it is often the case for questions without a diagram, candidates were unsure of the extent to which they needed to elaborate on the two reasons and often over-elaborated.

(c) There were lots of variations of the poverty cycle and most were appropriate. Often, candidates struggled to explain how FDI would break the cycle and instead explained their poverty cycle which was not required by the question.

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

The candidates who had the most difficulties with this question were those who did not read the question carefully enough and wrote on the policies which contributed to economic development in Peru. Many also discussed the policies which the government could adopt to promote growth.

As for other parts (d), some candidates just repeated the text and failed to use economic theory to explain the impact on future levels of economic growth. An AD/AS framework could have helped many achieve higher marks. Some candidates could not achieve L3 due to a lack of evaluation. Those who reached L3 were often those who considered factors that might hinder economic growth in the future such as the price volatility or depletion of minerals and other primary products.

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 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 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 answers – for example, an exchange rate “appreciates” rather than “increase”.

- In part (a) questions, students should be encouraged to write no more than two sentences. Diagrams are not required for definition questions.
- Most part (b) and (c) questions require the use of 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 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 movements in variables and shifts of curves and use (dotted) lines to project variables along the axes (e.g., q_1 , q_2 ...) for easy referencing.
- 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 variables/curves.
- 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. IB educators should encourage their students to read questions very carefully, identifying the key words, such as “policies” or “tied aid” or “AD/AS 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 level are those where candidates clearly demonstrated knowledge and application of 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 (e.g. an AD/AS analysis to explain how growth could be enjoyed, an explanation of how a particular policy could achieve development by breaking the poverty cycle...). If candidates have drawn a diagram in part (b) or (c) that is relevant, they may refer back to that diagram in (d).
- 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 - that is often the case for questions involving tariff diagrams. Candidates should be encouraged to fully ‘engage’ with the text, in order to be able to **apply** the theory.
- Some candidates continue to uncritically paraphrase the texts in their part (d) answers. Encourage your students to think critically about the information in the text.
- A good way for to end a (d) answer is to provide a brief summative evaluation. This should not merely repeat earlier sections, but should consider, for example, whether a tariff is, overall, advisable or the short run and long run impacts of a set of policies.

Higher level paper three

General comments

The May 2019 paper was considered to be of a similar degree of difficulty to that of May 2018. Candidates performed well if they could identify appropriate theories and concepts and also explain and apply them accurately with reference to the stimuli provided. Many lower achieving responses were able to state, define and describe but struggled to apply their knowledge and understanding to address questions in a focused manner.

There were several questions which revealed a tendency for students to provide theoretical responses rather than explanations of theoretical concepts. This suggests that many candidates learn concepts without acquiring an understanding of their bases. The paper continues to discriminate effectively between students who have a basic knowledge and understanding of economic theories and those who can use models to undertake economic reasoning.

Despite the comments and guidance provided in several previous examiner reports, a significant number of candidates were penalized for incorrect rounding and omission of appropriate units and negative signs.

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

Section One – microeconomics

Candidates were able to describe basic relationships while struggling to explain and apply. Responses referred to “The Law of Supply” as a reason for the upward-sloping supply curve but could not explain the inherent causal relationships. Similarly, the effect of increasing costs of production on the supply curve was often stated but then explained poorly. Most candidates were able to explain the importance of PED and PES in the determination of tax incidence, and could recognize a perfectly inelastic supply curve, but could not integrate the two ideas. Many candidates assumed that marginal revenue would equate to zero when all available units (tickets) are sold.

Section Two – macroeconomics

Calculation of the unemployment rate continues to be a problem, with many candidates using an incorrect denominator. When explaining difficulties in measuring unemployment, a significant number of candidates relied on the argument that some unemployment is inevitable, or that in a complex economy it is simply too difficult to be accurate. Higher achieving responses were able to explain concepts such as hidden unemployment and underemployment effectively. Few candidates provided an accurate definition of the marginal rate of tax, while a surprising number did not apply the appropriate marginal rates to each income bracket in order to calculate the tax to be paid. Many students could list supply-side policies but struggled to demonstrate an understanding of the different types and of the effects of supply-side policies on the labour market.

Section 3 – international economics

Although many candidates could illustrate and identify comparative advantage, few were able to explain why specialization according to the principle should theoretically occur. Candidates generally struggled to calculate the new consumer surplus following an increase in demand, while application of the concept of social/community surplus proved a difficult challenge for many. Relatively few candidates

appeared to be familiar with the concept of “administrative barriers” to international trade. While candidates could describe reasons why a government might prefer a floating exchange rate, lower achieving responses struggled to explain clearly. A significant number of candidates struggled to calculate the correct new exchange rate following a depreciation of 10% but were generally successful in converting from one currency to another using a given exchange rate.

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

Section One – microeconomics

The majority of candidates could identify the slope of a supply curve, plot a supply curve from a given function, define price elasticity of supply (PES) and identify factors influencing PES. The calculation of average fixed cost from given data was performed successfully by most candidates, while an awareness of a relationship between PED, PES and the incidence of a tax was demonstrated by a significant portion of the cohort.

Section Two - macroeconomics

Candidates were able to explain the impact of monetary policy, calculate the multiplier and the change in government spending required to increase nominal GDP by a given amount. Explanation of difficulties in measuring unemployment was also generally good.

Section Three - international economics

Illustration of comparative advantage was generally good, as was understanding of the possible dangers of over-specialization. Most candidates were able to explain effects of a currency appreciation and some reasons why a floating exchange rate might be preferable. Conversion from one currency to another, with a given or derived exchange rate, was generally good.

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

Question 1

- (a) Most candidates were able to identify the slope. A significant minority identified as $2/9$ or 0.22 , which was rewarded given the generally accepted convention.
- (b) Many students simply stated the Law of Supply, or justified with reference to revenue rather than profit. In perfect competition revenue would increase with an increase in output whether price increased or not, so reference to revenue only was deemed a Level 1 response.
- (c) Generally well-answered, with few errors.
- (d) Few candidates demonstrated an understanding of the underlying concepts relating to supply theory. Although the vast majority stated that “the costs of production” is a determinant of supply, few were able to explain why a new supply function arises with reference to incentives or profitability.
- (e) Although calculation of “300” was performed successfully by many, omission of “000”, “\$” or reference to “a decrease” was extremely common. Several responses calculated the initial PS as 800 or 1350.

- (f) Generally well-answered, although lower achieving responses merely stated or described the formula, while some referred to the responsiveness of producers, without referring to supply or quantity supplied.
- (g) The majority of candidates were able to refer to “ability to store”, “mobility of factors of production” or “the rate at which costs of production increase” as factors other than time which influence PES. Lower achieving responses stated rather than explained, while some made basic errors such as explaining that factor mobility is the ability to physically move machinery. Others confused PES with PED and referred to factors such as the degree of necessity.
- (h) The majority of candidates encountered difficulty with this question. Most stated that supply was perfectly inelastic, while a significant number identified the relevant learning outcome, “Explain, using diagrams, how the incidence of indirect taxes on consumers and firms differs, depending on the price elasticity of demand and on the price elasticity of supply” – but could not apply the theory to the context provided. As $PES = 0$, the producers would bear the whole incidence. Many candidates erroneously referred to a decrease on demand resulting from a higher price.
- (i) The majority of candidates were able to draw a downward-sloping MR curve with double the slope of the demand curve, intersecting the vertical axis at \$300, but a common error was for the curve to intersect the horizontal axis at 40 000 (the number of tickets available) rather than 30 000.
- (j) The majority of candidates recognized that revenue is maximized where $MR = 0$ and therefore earned full marks here, either correctly or with application of the Own Figure Rule (OFR). A significant number, however, provided an answer of \$4 million without any justification.
- (k)(i) Generally well-answered, with a small number of basic errors.
- (k)(ii) Higher achieving responses recognised that $MC = 0$, and so to meet the profit-maximizing condition MR must also be zero (i.e. at the revenue-maximizing level of output). Lower achieving responses appeared to assume that revenue maximization is equivalent to profit maximization and calculated accordingly.

Question 2

- (a) Generally well-answered. Lower achieving responses drew intersecting PPCs or confused the relative gradients.
- (b) Candidates were invariably aware that each country should specialize in the product for which it has a lower opportunity cost, though quite a few implied or even stated that the “lower” opportunity cost referred to the other good (“for apples than bananas”), rather than the other country. However, they did not identify a positive consequence of such specialization.
- (c) Many candidates were able to explain a danger of over-specialization, while a minority focused on limitations of the model, such as transport costs or focus on a 2-country, 2-product model, which are limitations of the model rather than factors influencing the decision to specialize.
- (d) Most responses provided the correct answer of \$120 000, although some focused on the total demand rather than the demand for imported oranges, so were awarded 1 mark only owing to invalid working.
- (e)(i) Candidates commonly struggled to calculate the new consumer surplus. Some attempted to calculate via manipulation of the functions and were invariably unsuccessful.
- (e)(ii) Higher achieving responses identified that there would be no change in producer surplus, so the change in consumer surplus would be equal to the change in social surplus. Others successfully calculated

the new social surplus. Lower achieving responses struggled to calculate, or even to recognise the term “social surplus”.

(f) The term “administrative barrier” appeared to be unfamiliar to many candidates. “Quotas” was the most common response.

(g) The majority of candidates were able to explain the possible effect on exports, imports and thus the current balance. Lower achieving responses treated the effects on imports/exports as two separate points – but were awarded Level 1. Stronger responses referred to effects on aggregate demand (stated) and therefore on growth/unemployment. It was common for candidates to confuse the balance of trade with the terms of trade and to suggest that an appreciation might cause a depreciation, or even an increased demand for the currency.

(h) Well-answered.

Many candidates were not able to calculate the new exchange rate correctly, but performed the rest of the calculation successfully.

(j) Lower achieving responses simply described how a floating exchange rate works, and implied that this was an advantage, while others stated that it was “easier” or “cheaper” for the government if the exchange rate was allowed to float. Several views were expressed as to the likelihood of currency speculation. In contrast, many responses explained clearly the advantages regarding independence of demand-side policies and the removal of a requirement to hold significant reserves of foreign currency (bearing an opportunity cost) under a fixed exchange rate system.

Question 3

(a) This question proved difficult for candidates. Although many were able to calculate the size of the workforce, a common error was to use an incorrect denominator in the calculation of the unemployment rate.

(b) Lower achieving responses commonly described frictional and seasonal unemployment as a difficulty of calculation or stated that statistics were too complex for an accurate calculation. The majority of candidates identified hidden unemployment and underemployment as difficulties, although explanations were not always clear and accurate enough to achieve Level 2. Some responses neglected to show that part-time working is an issue only if the part-time nature of the employment is involuntary. Overall, a significant proportion of responses demonstrated a clear understanding of the inherent concepts.

(c) Well-answered, with a small number of inaccurate or unlabelled curves.

(d) A significant number of candidates were able to draw the curve representing the minimum wage but then calculated the resulting unemployment incorrectly. A common error was to provide an answer of $40 - 12 = 28$, a consequence of misreading the graph.

(e)(i) Relatively few candidates were able to provide a clear and accurate definition. Responses which stated the idea that “it’s what you pay in the top bracket, or in different brackets” were common, as was the idea that it is the change in the rate of tax if income increases.

(ii) Although there were many accurate responses, a large number of candidates applied a single “rate of income tax” to each salary, resulting in an answer of $\$3800 - \$1500 = \$2300$.

(f) This question was answered very well, reflecting the ability of candidates to explain how expansionary monetary policy works with use of a diagram. A small number of candidates neglected to refer to interest rates or components of aggregate demand.

(g) A range of supply-side policies was suggested, with many being non-interventionist, such as a reduction in corporate taxes or a reduction in the minimum wage. There were also many responses which did not focus on low wage labour, such as “subsidies” or “help for infant industries”. In order to be rewarded for each policy, candidates were required to identify how these policies might influence the labour market. It is clear that many candidates were unable to do so.

(h) As for part (g), a range of policies suggested were not market-based nor would they influence the supply of labour. An increase in the minimum wage, for example, is not market-based.

(i) Generally well-answered by the majority of candidates.

(j) Well-answered, with a number of candidates benefitting from the own-figure rule from part (i).

Recommendations and guidance for the teaching of future candidates

Some of the suggestions below have been offered in previous reports, but it is deemed appropriate to repeat them.

- It remains the case that many candidates “state” factors when required to explain them, while others write very long responses where the command term indicates a brief answer is sufficient. Teachers should show their students past papers and markschemes in order to assist them in understanding how different command terms should be addressed.
- Students often write answers which demonstrate knowledge and understanding of a concept or theory but which do not address the question asked. Although there is a time constraint in the examination, students would benefit from thinking a little more carefully about the requirements of a question before beginning to answer. It is recommended that teachers encourage students to question the rationale for concepts and theories rather than being content to learn them.
- Students should be provided with regular opportunities to discuss the significance of concepts, relationships and conditions encountered during the course. They should examine why economic “laws”, such as the Law of Supply, hold. When analysing change, it is important to understand why a curve might shift rather than simply knowing that it does. For HP3 there may be a temptation to focus solely on knowledge, understanding and skills, but this is neither appropriate nor sufficient.
- When teaching macroeconomic policies, teachers should focus more carefully on the intended transmission mechanism for each policy. This appears to be done well for demand-side policies, but not for supply-side policies.
- Candidates should be reminded to show units and round correctly. It would be helpful if teachers could insist on rounding to 2 decimal places 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 should 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.
- Candidates should be reminded that for HP3 it is likely that HL extension topics will be examined, and that focus on these topics is necessary.