

May 2016 subject reports

Economics TZ1

(IB Latin America and IB North America)

Overall grade boundaries

Higher level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 12	13 - 24	25 - 37	38 - 49	50 - 60	61 - 72	73 - 100

Standard level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 12	13 - 25	26 - 39	40 - 51	52 - 61	62 - 72	73 - 100

Time zone variants of examination papers

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 2016 examination session the IB has produced time zone variants of the Economics papers. Grade boundaries for the different time zoned papers are set separately, and careful judgments are made that are based on criteria for performance level to account for differences in the papers.

Higher level and standard level internal assessment

Component grade boundaries

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

This was the fourth May session for this syllabus and most centres have continued to improve in terms of working with the assessment criteria. There were a few exceptions. Overall the standard was good, and almost all candidates that completed three commentaries achieved a satisfactory level. Some schools produced excellent work. A few schools prepared their candidates poorly, and some were either unaware of the assessment criteria or were hugely generous in the marks awarded to their candidates.

Some portfolios did not include a summary portfolio coversheet. A template version of a summary portfolio coversheet and commentary coversheet are available in the Teacher Support Material (TSM). The 3/CS form does not give all the required information on sources, syllabus sections and word counts. A few centres did not accurately complete the 3/CS form. Centres should check the addition on the reverse side of the 3/CS form, and make sure the forms are signed by the candidate and the teacher.

Teachers should be aware that from May 2017 onwards, the summary portfolio coversheet and the commentary coversheet have been replaced with one single form (3/CSE) and there will no longer be any requirement to complete a 3/CS form. The new requirements for forms and coversheets, including links to the relevant forms, can be accessed in the 'Assessment' section of the online curriculum centre (OCC).

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. Some schools 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 a summary portfolio sheet with details of the sources, syllabus sections, the date commentaries were written and word counts. It is advisable to give the full URL (web address) of the articles. 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, clear translation: google translate is not always adequate. Completing the front-page section "Titles and dates of work" of the 3/CS form does not replace a summary portfolio coversheet (or from May 2017 onwards, a 3/CSE form).

It is recommended that teachers include a comment on the portfolio, explaining the marks they have awarded. Teachers should make sure to consult the most recent information from the IB for guidance on how IA portfolios should be organized and presented as we move to electronic submission of

Economics IA. A few teachers marked on the scripts with red pen, which can create confusion during moderation.

The range and suitability of the work submitted

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, as it will affect the moderating factor for the school.

Candidate performance against each criterion

Criterion A: Diagrams

Most candidates included relevant diagrams but these were not always explained well. Too many simply copied generic graphs from textbooks or internet sources without making them specific to the commentary. It is preferable that candidates create their own graphs, either by hand or using computer skills. If candidates have copied graphs they must give the source. Please note that the criterion descriptor assesses whether the candidate “is able to construct and use diagrams” so copy/paste diagrams will not achieve maximum marks.

Candidates should avoid very lengthy descriptions of graphs, especially where these are generic graphs that have been copied.

Some candidates made reference to colours on their graphs but then sent portfolios printed in black and white.

Criterion B: Terminology

Terminology needs to be used appropriately, but this does not mean every term must be defined. Terms like “price elasticity of demand” could be briefly explained with a comment such as “which measures how responsive the quantity demanded is to a change in price”. If precise definitions are copied they must be in quotation marks and a source be given. They must not be in footnotes or they will be ignored. This criterion implies that the candidate displays understanding of the terms used. A number of candidates used an inappropriate dictionary definition for economic terms like deficit or depreciation. Most candidates achieved high marks in this criterion.

Criterion C: Application

This criterion tests whether the candidate has recognized the appropriate economic issues from the chosen article. It is important to make links to the article, and not simply present some economic theory that is faintly relevant. Some candidates made very little reference to the articles, and a few did not understand the articles. A common fault was to choose articles that were far too complex or dealt with issues not in the IB syllabus. Most candidates recognized the appropriate economic issues and achieved high marks.

Criterion D: Analysis

This criterion deals with explaining and developing economic theories linked to the article. It is important that the commentary makes repeated references to the article and integrates the theory and practice. An example might be discussing whether taxing alcohol is a better solution to market failure than regulating sales or prohibition.

A common fault was to simply summarize some economic theory without clearly linking it to the article. The descriptors for level 2 and 3 distinguish between “appropriate” and “effective” analysis: many commentaries were considered “appropriate” as the analysis was not developed enough.

Criterion E: Evaluation

A key issue in this criterion was whether the candidate “synthesizes his or her analysis”. If candidates have simply paraphrased an article that has already done the analysis and evaluation of an issue it is not possible to access the top levels on this criterion: the evaluation is not of the candidate’s own analysis. Many simply explained an article, generally agreeing with the author. Too many candidates gave opinions that were not backed up by appropriate economic reasoning. “I think” does not necessarily imply evaluation. It is not possible to reach the top level unless the candidate considers counter-arguments, and discusses benefits and disadvantages of a policy.

Criterion F: Rubric requirements

It is important to carefully follow the rubric requirements. Some candidates lost a mark under criterion F because they did not provide a summary portfolio coversheet with details of the sources, syllabus sections, the date commentaries were written and word counts. The descriptor about “different and appropriate sources” was designed to avoid candidates choosing excerpts from books, tutorial guides, government reports or personal blogs. A number of online media now include opinion columns that are technically “blogs” but these are acceptable if they are in a recognized news media source.

Recommendations for the teaching of future candidates

- The internal assessment (IA) should be an integral part of the IB course, not simply a set of assignments at the end of the course. The IA can be valuable to understanding the different parts of the syllabus and is especially important in providing examples that can be used in the externally assessed components. It is recommended that candidates read through their IA as part of their revision for examinations.
- It is recommended that the IA be spread across the teaching of the syllabus, with one or two of the commentaries completed in the first year of the IB course. This reduces stress on candidates in their second year and reduces the risk of incomplete portfolios being presented. Teachers should provide guidance in the selection of suitable articles but the candidate must make the choice. Some schools used a very limited selection of sources and topics for their IA, which gave the impression that teachers had selected the articles. Teachers are reminded that they are allowed to give feedback on a first draft of the commentary but the second draft is considered final.
- A few schools, or candidates, did not appear to have produced a first and subsequent final draft of the commentaries.
- It is important to stress the potential consequences of academic misconduct. Teachers should take care to verify the honesty of work presented, ensuring that the language and

analysis presented is really that of the candidate.

- It is also necessary to remind teachers against providing too much assistance to candidates. It is part of the candidates' task to find and analyse the articles: this should not be done by the teacher. A number of schools presented samples where many candidates had used the same articles.
- A small number of candidates did not fulfil the criteria by producing three commentaries that were on almost identical topics: this should be strongly discouraged by centres as it could be considered intellectual dishonesty. While very short commentaries do not get punished under Criterion F they are unlikely to score well on other criteria.

There were some cases where the candidate had completely misunderstood the article used: for example an article on production quotas for fishing was read as an article on import quotas; in another case the article was about the price of gas for consumers and the word "tariff" was used to describe the price but the candidate confused this with import tariffs. In such cases it is important that the teacher inform the candidate and suggest they choose another article. If candidates do not do this they risk having the graphs, analysis and evaluation being considered inappropriate or not relevant. This could affect the moderation of the school, not just the individual candidate.

Higher level paper one

Component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 6	7 - 13	14 - 19	20 - 24	25 - 29	30 - 34	35 - 50

General comments

The choices of questions made by candidates were relatively uneven this examination session. In section B, Question 3 was very popular and few candidates attempted question 4. It is not possible to infer whether this was a positive outcome or whether candidates avoided question 4. In section A, question 1 was more popular than question 2. The examination paper was perceived to be quite challenging in that specific areas of knowledge were needed on incidence, alternative objectives of the firm and Keynesian theory. Very few candidates misunderstood the examination rubric instructions.

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

Incidence (question 1(a)) seemed unfamiliar to many candidates, who surmised that it meant differing outcomes on quantity demanded and supplied depending on elasticities.

Alternative goals for firms (question 2(a)) were sometimes identified as different efficiencies (allocative and productive). A surprising number of candidates were unable to write about revenue maximization or identify it diagrammatically.

The overwhelming choice of question 3 over question 4 implies that the subject matter of question 4 (Keynesian equilibrium, investment and growth) may have been perceived as difficult.

Real-world application and examples were lacking as they have been in previous years. Whether the absence implies difficulty is unclear, but candidates and teachers should be reminded that the top achievement levels specify the presence of real-world examples.

Labelling of diagrams remains an issue, especially the confusion of microeconomic and macroeconomic diagrams. The label Q often appears on the X axis of AD/AS diagrams for example. LRAS appears on Keynesian AD/AS diagrams.

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

From the revealed preference of question choice, candidates seemed well prepared for question 3 on taxation and fiscal policy in the macroeconomy. In question 1 there was fair understanding of indirect taxes and a willingness to take a stakeholder approach to part (b).

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

Question 1

- (a) Some responses contained laborious explanations of elasticities, reproducing class notes without focusing on the question. The concept of incidence seems to be unknown to some candidates, but those who understood it were able to support it with an appropriate diagram. Generic examples were offered in many responses.
- (b) Some candidates seemed unsure of how to respond to the command term “discuss”. Some took the approach of a market failure (negative externality of consumption), others took a stakeholder approach and a few took both. There was no consensus on whether demand for unhealthy food was price elastic or inelastic but either case could be argued convincingly. Disappointingly few examples were provided.

Question 2

- (a) A minority of candidates were able to offer several valid alternatives to profit maximization, though many were aware of revenue maximization. The motivations of firms following alternative goals were not well explained. Many confused alternatives with different efficiencies. Examples were rare but welcome when offered. Diagrams were generally acceptable.
- (b) The command term “examine” was interpreted in different ways. Some took it as an invitation to describe different types of barriers to entry, others produced lengthy comparisons with perfect competition to highlight the contrast with freedom of entry and exit, while others tended to ignore the short run/long run part of the question. Examples, when offered, tended to be generic.

Question 3

- (a) This was perhaps the most accessible question and most responses were accompanied by an appropriate diagram. Taxation was interpreted fairly narrowly as direct taxes. Real-world examples were rare or vague.
- (b) The command term “evaluate” was treated with familiarity. Only the higher achieving responses dealt with time lags and crowding out. There was some wish to consider alternatives which proved useful where examples were offered.

Question 4

- (a) Few candidates tackled this question and even fewer were able to offer a convincing explanation for why an economy may be in equilibrium at any level of output. Examples were rare except among those who could apply Keynesian economics in historical context. There was some mislabelling of diagrams.
- (b) This was not answered well unless candidates could produce accurate definitions and some knowledge of types of investment. Evaluation implied some trade off with other growth policies and examples were necessary to do this convincingly.

Recommendations and guidance for the teaching of future candidates

- While there has been progress and improvement in the quality of responses since the current syllabus was introduced in 2013, for which teachers deserve credit, a greater focus on

command terms would be helpful, especially for part (b) responses. Definitions of the command terms can be found in the final pages of the subject guide.

- It is important to establish good definitions at the outset of a response. Only when the concepts mentioned in the question have been defined is it appropriate to introduce alternatives. This ensures focus on the question.
- Examples remain elusive. Examiners would much prefer real-world to generic examples and teachers should highlight this in their teaching. Promotion of economic awareness and real-world examples is advised throughout the course but especially at revision time.
- Schools should be reminded that scripts are scanned in black and white, so coloured lines and shaded areas are not visible to examiners.
- It should be clear to all by now that part (a) questions depend heavily on explanation and part (b) on evaluation. Too many part (b) responses incorporate too much explanatory material. Also, evaluative material should be kept for part (b).
- Responding to part (b) first is generally not a helpful approach because the two parts are linked and should incorporate progression. For example it is acceptable to refer in part (b) to a diagram and explanation drawn for part (a). Doing this the other way round is difficult.

Standard level paper one

Component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 7	8 - 14	15 - 20	21 - 25	26 - 30	31 - 35	36 - 50

General comments

Overall the quality of responses was higher than has been seen in the past couple of examination sessions which was encouraging. Many candidates seemed to be well prepared in the actual structuring of the essay, recognising the importance of having definitions in the introduction, the development of coherent analysis with diagrams and examples and, where necessary, focused evaluation. However, it is crucial that candidates provide evidence of understanding and to do this they must support statements with an explanation and not just rely on a series of technically correct points. In many situations candidates can follow a formulaic structure with accurate points but examiners are not confident that the candidate actually has a strong grasp of the underlying theory.

It appeared that having specific references in the questions to examples such as cars, housing or even a deep recession was not that helpful to many candidates. It actually appeared to make it more difficult to deconstruct the question and get to the essence of what the question was asking when the intention was to provide the candidates with a focus to build the theory around. It should not really matter what example is given in the question as candidates should be able to apply their economics to any scenario but this did not appear to be what happened in practice.

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

Although many candidates appreciate the need for definitions all too often these definitions were vague or imprecise. For example, with price elasticity of demand many candidates are able to provide the formula but are not able to effectively define the term. They would refer to price having an effect on demand or simply state the law of demand rather than explicitly stating that it is a measure of responsiveness. This was typical with most definitions and suggests that candidates are not encouraged to learn textbook definitions but to rely on more general explanations which are simply not accurate enough.

Another issue that prevents even the strongest candidates from advancing to the higher levels of the assessment criteria is their inability to provide effective examples. The majority of candidates were unable to integrate historical cases of the application and effects of specific macroeconomic policies or realistic real-world microeconomic examples that clearly support the theoretical explanations.

The drawing and labelling of diagrams was also an issue for many candidates. Diagrams were carelessly drawn, often without using a ruler, and were often incomplete or poorly labelled. For example a supply and demand diagram showing a shift in demand is incomplete if the equilibrium price and quantity are not identified. A macroeconomic AD/AS diagram is poorly labelled if P and Q are used for the axis. In addition, if a diagram is drawn, it must be explained clearly in the text. Too many candidates either ignore the diagram or make a simple statement like 'as is shown in the diagram' without explaining what is shown.

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

Candidates were well prepared in terms of the microeconomic theory. Many were able to explain clearly movements along and shifts in the demand curve as well as price elasticity of demand and maximum price controls. As mentioned earlier responses also tended to be well structured with definitions in an introduction, a body that develops a response to the question with diagrams and, if necessary, an attempt at evaluation. However, care does need to be taken that responses do not become too mechanical as it sometimes did appear that candidates had simply memorized a response to a similar question but were unable to 'think on their feet' and relate it specifically to the question asked.

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

Question 1

(a) This was a relatively straightforward question for those candidates who understood this basic piece of demand theory. Many candidates were capable of distinguishing between a movement along the demand curve when price increases and a shift in the demand curve when income increases and draw the appropriate diagrams. Higher achieving responses were able to explain the law of demand in relation to price and appreciated that an increase in income could lead to either an increase or a decrease in demand. While it was not necessary to refer specifically to normal and inferior goods it was necessary to explain that demand could shift to the right or the left to access level 4. This turned out to be a good discriminator for this question as a number of candidates were unable to make this connection. Lower achieving candidates were unable to develop their explanations of the theory or became sidetracked into analysis of price elasticity of demand and income elasticity of demand which were largely irrelevant

(b) Candidates often find questions that require an evaluation of elasticity difficult and it was no exception this year. Many candidates were able to demonstrate knowledge of price elasticity of demand and could provide some sound reasoning about the price elasticity of demand of different types of cars but this was only enough to reach the middle of level 2. Candidates needed to link price elasticity of demand to total revenue to demonstrate an appreciation of the 'significance' of price elasticity of demand and move towards the top of level 2. As mentioned earlier meaningful evaluation was then weak or non-existent which was surprising given that this type of question has been asked on a number of occasions and it is clearly stated in the subject guide. Candidates could have tackled the evaluation in a number of ways by discussing the extent to which luxury or less expensive cars can be easily categorized in this way to questioning the accuracy of the price elasticity of demand data and whether firms are solely driven by revenue maximization.

Question 2

(a) This question was answered well by the majority of candidates and even those who relied on common sense rather than a sound understanding of the theory were able to access the higher levels. As the question almost demanded that the candidates provided an example this was generally not an issue although some of the supply factors used were more contrived than the demand factors.

(b) In general candidates were able to explain maximum prices accurately although some candidates spent far too long developing the theory and often drifted into an explanation of minimum prices as well. This question also lent itself more to discussion and as a result many candidates were able to access levels 3 and 4. However, it was important that candidates presented both sides of the argument. Some took the view that they needed to support the question and focused only on the reasons why maximum prices can cause problems in the housing market. Without some appreciation that there is a justification for imposing a maximum price in this market and that those people who manage to obtain housing for a lower rent do benefit, it was unlikely that the candidate could reach level 4.

Question 3

(a) This was another opportunity for candidates with a sound understanding of the theory to perform well. Many understood that an increase in interest rates would lead to a decrease in aggregate demand and could illustrate this shift in aggregate demand on a diagram. For these candidates the key question was whether they could clearly explain the individual effects on consumption and investment and then whether they knew any historical examples of where interest rates had been increased. Other candidates spent too long explaining how interest rates are set by money demand and money supply and failed to really focus on the specific question asked.

(b) Many candidates demonstrated sound knowledge of monetary policy and explained how a decrease in interest rates would lead to a rise in consumption and investment, which would then increase aggregate demand. Typically evaluation focused on confidence during a recession and whether consumers and firms would respond to lower interest rates, especially when they are already very low. Higher achieving responses were able to link this to the current economic climate in many countries and were able to access level 4 as a result. Lower achieving responses tended to ignore the fact that the economy is in a 'deep recession' which needed to be referred to in order to access the higher levels. These candidates tended to evaluate by mentioning that expansionary monetary policy is less effective when the economy is operating at classical full employment but this was not considered to be very effective evaluation.

Question 4

(a) This was not a particularly popular question but for those that understood the Keynesian AD/AS diagram level 3 was usually quite accessible. For others this was quite a challenging question and lower achieving candidates tended to have a poor understanding of equilibrium in a Keynesian context where an economy can be stable at less than full employment. A number of others attempted this question without any clear idea about the Keynesian model and just explained AD/AS in very general terms.

(b) A surprising number of candidates were unable to provide a clear definition of investment and often focused on the return on financial assets rather than the accumulation of capital stock. Others were under the impression that investment is something that only the government undertakes and while this is correct to an extent it meant that their answers were not really broad enough. Higher achieving

responses appreciated the demand and supply implications of increased investment and were able to evaluate very effectively by considering the importance of investment in relation to the other causes of economic growth.

Recommendations and guidance for the teaching of future candidates

- Teachers should focus on examples by bringing real-world examples into the classroom and stressing the importance of integrating examples into answers. The internal assessment portfolio can be used as a valuable tool to stimulate candidates to relate textbook theory and examples to real-world events through reading and discussing numerous articles. It would also be beneficial to focus on examples as part of the final review prior to the examination so that candidates have fresh up-to-date examples in their toolkit.
- Candidates need to be better prepared for part (b) questions that appear to promote a particular point of view. They normally begin with 'discuss/evaluate the view' and candidates need to understand that they should not give their personal opinion and must endeavour to provide a balanced argument that considers both sides. In addition they do not need to reach a conclusion that states categorically that one view is clearly preferable to another.
- Evaluation continues to be the real discriminator between candidates and, as mentioned in previous examiner reports, candidates need to be taught the skills necessary to evaluate effectively and be given plenty of practice. Candidates are often reluctant to explore issues in any great depth and the balance of the answers in part (b) is often skewed towards analysis rather than evaluation. Candidates need to know that effective evaluation cannot be achieved in a couple of sentences with a simple reference to stakeholders or the timeframe involved. Writing well in economics is a skill in itself and requires confident knowledge of the syllabus as well as a willingness to take risks and explore the likely outcomes from a variety of viewpoints.

Higher level paper two

Component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 5	6 - 10	11 - 14	15 - 19	20 - 23	24 - 28	29 - 40

General comments

This subject report, used in conjunction with the markscheme, is designed to help teachers prepare their candidates for future exams by clarifying the expectations of the IB examining team. Since the markscheme outlines the most appropriate responses, this report focuses more on the more common errors made by candidates. General comments about exam-writing techniques are similar, if not exactly the same as in previous reports on economics data-response questions.

The examination seems to have been well-received by those centres that completed the feedback forms. It was considered to be a well-balanced paper, with appropriate syllabus coverage. The texts were considered to be accessible to the majority. There seemed to be very few problems with time management.

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

This will be addressed in the context of individual questions. In general, it would appear that the candidates seemed better prepared for Section A than for Section B.

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

This will be addressed in the context of individual questions.

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

Question 1

This was by far the more popular of the two questions in Section A.

1(a)(i) The markscheme included a vast number of possible points, and most candidates were able to score well on this question.

1(a)(ii) Some candidates imprecisely referred to spending by people in the economy, rather than spending by households (or consumers). Others seemed to equate consumption with aggregate demand.

1(b) This was generally well done, with most recognising the impact of the strong won on net exports. Teachers should note that there were two approaches to this question, both of which were equally valid and acceptable.

1(c) Where candidates did not earn full marks for the explanation, the most common shortcoming was to write that the authorities would increase the supply of the won, without explaining how this would be done – i.e. selling the won and/or buying foreign currencies in the foreign exchange market. There were also the inevitable weaknesses in the accuracy of the y-axis labels.

Some candidates explained a fall in the demand for the won due to central bank intervention. While credit was possible, this approach mainly led to some very confused responses. A general guideline is that any change in the value of a currency may be explained by either an increase in supply (depreciation) or an increase in demand (appreciation).

1(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.

One rather common, but inaccurate approach was to assume that intervention in the foreign exchange market meant that South Korea was moving from a floating exchange rate system to a fixed exchange rate system. This resulted in poor responses with candidates delivering pre-learned essays on the relative advantages and disadvantages of fixed and floating exchange rates.

For those that understood the theory and the question, there was a lot of information in the text to support a discussion. It should be noted that most candidates do not go far enough in providing synthesis of the arguments, but rather uncritically approach these questions by simply listing advantages and disadvantages.

Question 2

2(a)(i) Most candidates were able to perform well on this question, although some neglected to note that MNCs are engaged in some kind of productive activity.

2(a)(ii) Most candidates were able to perform well on this question, with the inevitable confusion between fiscal and monetary policy among lower achieving responses.

2(b) The question did not stipulate a diagram and this may have left some candidates confused. A great many candidates incorrectly drew AD/AS diagrams, and explained a fall in AD due to the fall in export revenues. However, this is not what the question asked. Two different correct approaches were identified in the markscheme, and there were many examples of both of these approaches.

2(c) This was a very straightforward question, and most candidates performed well. Inaccuracies included incorrect labelling (lower achieving responses not distinguishing microeconomic and macroeconomic labels). Teachers should note that here too, there were two approaches to this question, both of which were equally valid and acceptable.

2(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 question addressed a challenging learning outcome, and this was probably the reason that Question 2 was less popular than Question 1. There is quite a bit of information in the text that could be used as the basis of the analysis, and there were some excellent responses where candidates applied and developed appropriate economic theory to answer the question. One common shortcoming was to correctly identify a fall in the currency as a consequence of the current account deficit, but then to write an essay about the problems of a falling currency, rather than stick to the actual response. Another fairly common problem was where candidates explained the ways in which a current account deficit may be reduced, rather than discussing the consequences of the current account deficit.

Question 3

3(a)(i) This was generally very well done.

3(a)(ii) Despite the fact that this has been a question on many examination papers, many candidates continue to struggle to come up with a clear definition/explanation of infrastructure. Many still just give a list of examples.

3(b) The vast majority of candidates were able to score well on this question, recognizing that the violence in Timor-Leste had worsened the quality and quantity of factors of production, thereby causing a fall in production possibilities/inward shift in PPC. Some candidates showed and incorrectly explained a change in actual output, despite the leading information in the question itself. There were many examples of inaccuracies in the labelling, with weaker candidates using price level and real GDP instead of two competing types of output.

3(c) Responses to this question were very variable. A worrying number of candidates had no idea of the difference between GDP and GNI and so performed very poorly. Some candidates were able to define both terms and yet were unable to explain the difference between them. Higher achieving responses defined the two terms and then explained that the lower GNI per capita meant that net income from abroad must be negative. Some answered more fully stating that foreign owners of productive resources in Timor-Leste are earning more income than owners from Timor-Leste are earning in foreign countries.

3(d) "Compare and contrast" requires candidates to give an account of similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.

Candidates seemed to like the 'compare and contrast' command term and many wrote at length. Higher achieving responses defined the HDI and then explained the concept of economic development. They then identified the similarities and differences between the HDI data for the two countries and then evaluated them in terms of their relevance for the countries to achieve, or be blocked from, economic development. They were able to bring in good evaluative points along with the compare and contrast approach.

Lower achieving responses were often purely descriptive and/or restating information from the extract and data. Very few considered how "relevant" the data was for economic development. A number of candidates struggled to explain the components of HDI, with a disappointingly large number of candidates explaining that the HDI involves a huge range of indicators.

Question 4

4(a)(i) Lower achieving responses defined aid, but did not recognise that 'official' means the disbursement of aid from a government or a multilateral government body.

4(a)(ii) Most candidates were aware that it is a form of economic integration and that member countries agree to trade freely amongst themselves. Fewer were able to add that the members also adopt common external barriers/trade policies towards non-members.

4(b) The majority of candidates seem comfortable with this model. Labelling was noticeably better than in the past. Inevitably, some candidates misinterpreted the Gini coefficient, associating higher values with greater income equality, or misinterpreted the positioning of the Lorenz curve, associating curves closer to the diagonal with greater inequality.

4(c) The question specifically asked for reference to the data, and this seemed to point the candidates in the right direction. Most were able to point out that despite Nigeria's notably higher GNI per capita, its development indicators were notably lower than those of less wealthy Rwanda, thus illustrating the conclusion that higher national income may not lead to higher economic development.

4(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 question comes straight from the learning outcomes, so it is an area that the candidates should be prepared for. The syllabus is very clear on possible approaches. While there were certainly some excellent and perceptive responses that used the text meaningfully, there were a great many rambling responses that failed to present appropriate economic theory.

A very clear shortcoming among many responses was an inability to link the theory presented with economic development. There was a tendency for some candidates to treat this as a macroeconomics essay question, and examine the pros and cons of interventionist and market-oriented supply-side policies, without making appropriate/sufficient links to development.

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.

- 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 words 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, candidates should be encouraged to write **no more than** two sentences, for defining, listing, stating, or describing. Some candidates write far too much and then experience timing problems later in the paper.

- 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 (q_1 to q_2) or (AD_1 to AD_2) in their written work.
- If at all possible, diagrams should not be placed at the end of the exam. 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 in their responses. Therefore there should not be references to different coloured lines in the diagram, as these will not show up when the papers are scanned. 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 be able to distinguish between macroeconomic and microeconomic labelling. Failure to label diagrams correctly prevents candidates 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 part (d) questions, they must make reference to the text. Encourage candidates to use quotation marks, or make references to the relevant paragraphs or texts.
- Part (d) questions 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.
- 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 in order 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 the texts in their part (d) answers. Candidates should be encouraged to think critically about the information in the text

Standard level paper two

Component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 4	5 - 8	9 - 14	15 - 19	20 - 23	24 - 28	29 - 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 IB examining team. Since the markscheme outlines the most appropriate responses, this report focuses more 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 on economics data-response questions.

The examination seems to have been well-received by those centres that completed the feedback forms. It was considered to be a well-balanced paper, with appropriate syllabus coverage. The texts were considered to be accessible to the majority. There seemed to be very few problems with time management.

The performance of candidates seemed to be better in the international economics section than in the development economics section. This may imply that centres should spend more time covering development topics than they are doing at the moment.

Question 1 seemed to be far more popular than question 2, presumably because it related to tariffs, a popular topic with candidates and teachers.

Question 3 seemed to be more popular than Question 4, although it was not necessarily better answered.

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

This will be addressed in the context of individual questions.

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

This will be addressed in the context of individual questions.

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

Question 1

1(a)(i) The majority of candidates were able to explain that dumping is the selling of goods in another country at a price below the cost of production (or below the price charged in the home market). Lower achieving responses simply wrote that it was selling goods cheaply in a market, often forgetting to mention that it was a foreign market.

1(a)(ii) This was not well answered. Many candidates seemed to have no knowledge of the WTO, other than what was in the text of the question, and so wrote about the WTO rulings in paragraph 6. Higher achieving responses listed two functions of the WTO and, in doing so, explained that it operated for member countries.

1(b) This question was generally well answered, with the majority of candidates drawing a diagram that would enable them to identify the loss in revenue suffered by foreign steel exporters when a tariff was imposed. Some lower achieving responses failed to identify the lost revenue, ignoring the question, and wrote about changes in quantity supplied by the different producers. Others identified the wrong revenue, because they included the tax revenue of the government in the revenue of the foreign steel exporters.

1(c) This question discriminated very well. Candidates either got it completely right or completely wrong. Higher achieving responses recognised that the question referred to the gas energy market and that steel was necessary in production in that industry. They explained that the tariff would increase the cost of steel, increasing the costs of energy producing firms, shifting the supply curve in the gas energy market to the right, and causing an increase in price and a reduction the quantity demanded and supplied. Lower achieving responses failed to realise that the question was about a different market and wrote about the steel market again.

1(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.

Higher achieving responses explained what a stakeholder was, and identified the stakeholders involved in the decision to raise tariffs on steel. They then explained the impacts, good and bad, upon the different stakeholders, evaluating the possible outcomes of those impacts and reaching a balanced conclusion. Lower achieving responses simply answered by going through the conventional theoretical arguments for and against tariffs (including the infant industry argument...) without using the text sufficiently and without evaluation. A number of candidates misunderstood the term "stakeholders" and seemed to think it referred to "stockholders".

Question 2

2(a)(i) This was reasonably well answered, with the majority of candidates explaining that a monetary union is where countries share a common currency and a common central bank. Others mentioned the fact that it is in a customs union and has common interest rates (monetary policy). Any two of these statements was sufficient. Lower achieving responses wrote in vague terms about the same "money" and free trade.

2(a)(ii) This was well answered. The majority explained that inflation is a sustained increase in the average (general) price level in an economy. Lower achieving responses omitted 'sustained' and/or 'average/general'.

2(b) This question was not very accurately answered. Higher achieving responses explained that the increase in interest rates in the WAMZ would lead to an increase in demand for the eco, as foreigners will want to save in the WAMZ to take advantage of the higher interest rates. Lower achieving responses often got the diagram right, but had the wrong explanation. They were confused between investment and saving, thinking that the interest increase would lead to more investment in the WAMZ, which it clearly would not.

2(c) This was well answered, with the majority of candidates explaining that government expenditure is a component of aggregate demand (AD) and so a decrease would shift the AD curve to the left, causing a fall in real GDP and the average price level. Lower achieving responses seemed to think that reduced public services would lead to a decrease in aggregate supply, but could not explain their logic/thinking.

2(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.

Higher achieving responses defined a monetary union and then introduced possible positive and negative outcomes that could come about through membership, using examples from the text to support the theory that they used. Positive points included the elimination of exchange rate uncertainty, easier planning for firms, increased foreign investment, economic growth, lower budget deficits, lower inflation, lower public debt, the benefits of having to meet the criteria for membership, building a good economic foundation for the future. Negative points introduced included the problems of integrating the 14 monetary systems, the loss of sovereignty, the loss of control over monetary policy and exchange rate policy, changeover costs, and the problems of supporting other members of the union. They then weighed up the strengths and limitations and produced a balanced judgment/conclusion.

The lower achieving responses tended to ignore the monetary union aspect of the question and chose to write upon the benefits of membership of a customs union instead. This led to theoretical responses, which were off topic.

Question 3

3(a)(i) This was generally well answered, with the majority of candidates explaining that fiscal policy involves changes in government expenditure and/or taxation to achieve macroeconomic objectives. Lower achieving responses only mentioned taxation. Some candidates were confused between fiscal and monetary policy and wrote about interest rates and the money supply.

3(a)(ii) Although it has been tested before, a surprising number of candidates were unable to define infrastructure, preferring instead to simply offer a list of examples. Higher achieving responses offered a combination of any two of the following statements – large scale public systems (services and facilities) of a country / necessary for economic activity / adding to the capital stock of a nation / usually supplied by the government.

3(b) Higher achieving responses recognized that the violence would have reduced the quantity and quality of factors of production, leading to a fall in production possibilities/potential output. They displayed this with a shift inwards of the PPC on the diagram. Lower achieving responses did not shift the PPC, despite being given the extra information provided in brackets of "potential output", and showed a fall in actual output.

3(c) Responses to this question were very variable. A worrying number of candidates had no idea of the difference between GDP and GNI and so performed very poorly. Some candidates were able to define both terms and yet were unable to explain the difference between them. Higher achieving responses defined the two terms and then explained that the lower GNI per capita meant that net income from abroad must be negative. Some answered more fully stating that foreign owners of productive resources in Timor-Leste are earning more income than owners from Timor-Leste are earning in foreign countries.

3(d) "Compare and contrast" requires candidates to give an account of similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.

Candidates seemed to like the 'compare and contrast' command term and many wrote at length. Higher achieving responses defined the HDI and then explained the concept of economic development. They then identified the similarities and differences between the HDI data for the two countries and then evaluated them in terms of their relevance for the countries to achieve, or be blocked from, economic development. They brought in good evaluative points along with the compare and contrast.

Lower achieving responses were often purely descriptive and/or restating information from the extract and data. Very few considered how "relevant" the data was for economic development. A number of candidates struggled to explain the components of HDI.

Question 4

4(a)(i) This question was not well answered. Many candidates seemed to have a very vague knowledge of the Millennium Development Goals, or none at all, other than what was in the text provided in the examination paper, and so wrote vaguely about the targets mentioned in paragraph ⑤. Higher achieving responses accurately listed two of the Millennium Development Goals, but they were few and far between.

4(a)(ii) Surprisingly, many candidates could not accurately define economic growth. Lower achieving responses hinted at the idea of the economy growing and little more. Many candidates failed to explain that it is an increase in 'real' output, not simply an increase in output.

4(b) Most candidates handled this question well, drawing an accurate Lorenz curve diagram with an inward shift of the curve towards the line of equality, and explaining that a fall in the Gini coefficient implies a more equal income distribution. Some candidates had problems with the correct labelling of the diagram. Lower achieving responses simply had no idea what a Lorenz curve was and performed very poorly.

4(c) This was another question where candidates either did or did not know the answer, with few responses in between. Higher achieving responses defined opportunity cost and understood that debt servicing is the repayment of debts/loans (with interest). Thus, they then explained that if governments had to pay back their debts, then the opportunity cost would be their reduced ability to

spend money on areas that might improve economic development, such as education or health care. Some candidates could define opportunity cost, but did not understand the concept of debt servicing. The lowest achieving responses did not know what debt servicing was and could not define opportunity cost.

4(d) "Evaluate" requires candidates to make an appraisal by weighing up the strengths and limitations.

Higher achieving responses introduced two trade strategies, such as import substitution, export promotion, trade liberalization, bilateral and regional preferential trade agreements, or diversification. They then explained the strategies, in the context of the text, and their possible relevance/effectiveness for The Gambia. The strengths and limitations of the strategies were evaluated and, sometimes, the comparison was made regarding the appropriateness of the two strategies.

A significant number of candidates ignored the word "trade" in the question and only discussed general growth strategies. Lower achieving responses were not really aware of trade strategies and wrote in very general terms about decreasing imports and increasing exports, often using the examples from the text of tourism and agriculture, and simply suggesting that they should increase the exports of both.

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.

- 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 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 words 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, candidates should be encouraged to write **no more than** two sentences, for defining, listing, stating, or describing. Some candidates write far too much and then experience timing problems later in the paper.
- 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 (q_1 to q_2) or (AD_1 to AD_2) in their written work.
- If at all possible, diagrams should not be placed at the end of the exam. 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 in their responses. Therefore there should not be references to different coloured lines in the diagram, as these

will not show up when the papers are scanned. 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 be able to distinguish between macroeconomic and microeconomic labelling. Failure to label diagrams correctly prevents candidates 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.
- Where a diagram is required, the questions now always stipulate which diagram is to be used. Despite this, candidates often draw different ones. This is yet another reason why it is so important to read the question carefully.
- 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 part (d) questions, they must make reference to the text. Encourage candidates to use quotation marks, or make references to the relevant paragraphs or texts.
- Part (d) questions 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.
- 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 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 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

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 4	5 - 9	10 - 15	16 - 22	23 - 28	29 - 35	36 - 50

General comments

The May 2016 examination paper was perceived to be of a similar level of difficulty to that of May 2015. While candidates were generally able to perform quantitative techniques, their ability to explain the significance of their findings was rather variable. In many cases, candidates were able to define, provide a formula or a condition, but could not apply the concepts or explain their meaning. It may be that some complacency existed, such that candidates think that higher level paper 3 is “easy” if they can perform the calculations, and consequently do not focus on the need for analysis and application.

The paper served to discriminate clearly between those candidates who have a sound understanding of economic models and those who know and understand only elements of the models.

Although there was widespread evidence of a sound grasp of theory and skills, once again it was evident that many candidates were not well prepared for some learning outcomes. For example, questions on the difference between explicit and implicit costs, and the reasons why cartels may be difficult to maintain, were poorly answered, while the terms of trade remains a challenging concept for many.

Candidates continue to lose marks for careless errors such as omitting units, neglecting to round to 2 decimal places and failing to remember that a percentage change must be calculated in relation to the original figure.

Several centres have expressed surprise that question 3, based on macroeconomic principles, required application of microeconomic principles in part (e). However, given the close interrelationships between concepts used in the different sections of the course, this is understandable and likely to occur in future sessions. In fact, in this case part (e) was the foundation for the questions on equity and equality (macroeconomic objectives, section 2.3) in part (f).

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

- An explanation of why price elasticity of demand is not represented by the slope of a linear demand curve proved extremely difficult for the majority
- Candidates were generally unable to clearly outline the difference between explicit and implicit costs
- Although most candidates were able to give the condition for normal profit, few were able to define the term by providing a precise meaning
- Calculation of the incidence of an indirect tax proved difficult. Many candidates neglected the

- requirement to express the answer “per tonne”
- Calculation of a simplified consumer price index proved problematic, despite a similar task being given in a previous examination
- Candidates struggled to explain an **effect** of deflation, instead referring to deflation as a consequence of falling aggregate demand and therefore explaining a consequence of falling aggregate demand
- The requirement to explain the likely impact of faster growth in the economy of a trading partner was a good discriminator between higher and lower achieving responses. Lower achieving responses were unaware of the possible causal relationship between national income and the level of imports
- Despite the concept being examined in a previous session, the terms of trade questions were answered very poorly
- The majority of candidates neglected to mention the significance of the price elasticity of demand for exports and imports when explaining the possible effect of a currency depreciation.

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

- Calculations using equations for linear demand/supply functions
- Calculations of the price elasticity of demand (but with many careless errors)
- Aggregate demand/aggregate supply analysis, including a graph, with regard to effects on unemployment
- The relationship between indirect taxation and equity, with good use of examples
- Explanation of reasons for changes in exchange rates
- Terminology regarding changes in a currency's value.

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

Question 1

(a) (i) Almost all candidates performed the calculation correctly, but the majority forfeited one mark for neglecting to express the answer in millions of kilogrammes.

(ii) Most candidates achieved one mark here, as they had already been penalized in part (i).

(b) (i) There were many careless errors, particularly rounding errors – expressing the answer to more than 2 decimal places, and calculating percentages as a proportion of the final price/quantity rather than the original. A significant number inverted the formula.

(ii) This was answered very poorly. Many candidates simply presented the formulae, while many stated that PED changes along the demand curve, without attempting to explain why or to contrast with the constant slope of a linear demand curve.

(c) (i) Generally well done, although lower achieving candidates were unaware of the essential relationships between output, average cost and total cost, and between total costs, fixed costs and variable costs

(ii) Candidates struggled to outline the difference between explicit and implicit costs with any degree of precision. Implicit costs were often defined as “opportunity costs” but without reference to the fact that they arise from the use of self-owned resources.

(iii) The majority of candidates provided the condition for a firm to be earning normal profits rather than a definition of the term and were not awarded full marks for this. Normal profit is sufficient profit to keep the firm/resources in its present use – hence abnormal profit will attract new firms, while losses will cause firms to exit.

(d) (i) Generally well-answered, although a significant number of candidates omitted a \$ sign.

(ii) Generally well-answered, with some candidates misreading the question and instead giving the profit-maximizing level of output.

(iii) Well-answered. The average revenue of \$11 (halfway between \$10 and \$12) was correctly determined by candidates, who recognized the significance of the linear demand curve.

(e) Higher achieving candidates were able to outline that a cartel member might be tempted to reduce price or increase output in order to gain market share/profit at the expense of other members. There was some appropriate reference to game theory also, where candidates explained that one firm might act on the assumption that others would not follow.

(f) Few candidates were able to explain two conditions, such as the market share enjoyed by the cartel or cost differences between the firms, clearly. Many candidates focused on the idea that firms might have different objectives, which would presumably be present when the cartel was set up, rather than the idea that objectives may have changed. The idea that cartels are illegal in many countries was offered consistently, and was awarded one mark only as, again, this would also have been the case when the cartel was established. It seems evident that insufficient emphasis had been devoted to this topic.

Question 2

(a) Well-answered.

(b) The majority of candidates were able to calculate accurately, although some mixed the currencies, giving the answer as 0.11 BWP. Others were able to produce an appropriate equation but were unable to solve it correctly.

(c) (i) Well-answered.

(ii) It was pleasing to see many accurate answers to this question. The main weakness was that some arguments were incomplete, referring to financial investment in Botswana but without mentioning of the demand for its currency. Some candidates referred to “foreign direct investment” rather than financial investment.

(iii) Generally well-answered, although a response of “evaluation” was seen in several scripts.

(d) (i) Very low achieving responses to this question. Few candidates referred to the relative percentage changes in income and hence demand. Many candidates merely provided a formula for

income elasticity. It could be inferred that, while candidates have much practice in analysing price elasticity, the same cannot be said for income elasticity.

(ii) Higher achieving candidates were able to recognise the causal relationship between national income of trading partners and the level of exports, and realized the significance of the income elasticity of demand for diamonds. However, many candidates ignored the information given, and argued that growth would lead to investment by citizens of Botswana in the US and EU, hence causing depreciation of the BWP. In this case the likely effect, given the preamble, was clear, and so these responses were not rewarded.

(e) (i) Although many candidates were able to provide an accurate formula, a large proportion was not. Candidates routinely omitted “x 100” or omitted both “index” and “average”. A common error was to substitute “value” for “price” or to omit reference to prices altogether.

(ii) Although higher achieving responses were able to outline the meaning of the terms of trade, it was common to see responses in which the formula had merely been restated, in words. For example “the terms of trade shows the price of exports relative to the price of imports” without referring to an indication of the quantity of imports which can be purchased with a given quantity of exports.

(f) (i) Generally well-answered, although with many rounding errors, such as -18.3%

(ii) The majority of candidates were able to use appropriate terms such as “deterioration” and “improvement” while lower achieving responses tended to use words such as decrease and increase.

(g) The majority of candidates were able to explain that a depreciation would make exports more competitive, and were usually able to relate this to an improving current account balance (although many concluded that a surplus would be the result, rather than the possibility of a smaller deficit). However, it was common for candidates to be awarded 2 marks only as the influence of PED and the Marshall-Lerner condition, the significance of which should be recognised by higher level candidates, was ignored.

Question 3

(a) Many candidates calculated the cost of one “typical basket” only, and so earned 1 mark. Of those who correctly calculated the CPI for Country A, a significant proportion did not provide an answer correct to 2 decimal places.

(b) Many responses included points such as “differences in income” which were deemed too vague, as they did not refer to differences in spending patterns. Answers such as “errors in calculation” or “not all goods are included” were not rewarded. Moreover, several candidates stated that items with volatile prices such as food and fuel were not included (they are), hence the CPI did not reflect the cost of living.

(c) (i) The majority of candidates were able to identify periods of deflation and disinflation correctly, although many failed to respond to the requirement to use data in the table to support the answer.

(ii) It appears that candidates are less able to tackle this type of question when the information is given in a paragraph rather than in a table. There were many errors and a considerable number of rounding errors.

(d) Candidates were generally able to draw an accurate AD/AS diagram showing a decrease in aggregate demand and were able to explain the effect of decreasing aggregate demand on employment. However, few candidates explained how the effect on employment/aggregate demand could be a consequence of deflation.

(e) (i) Well answered. The vast majority of candidates were able to plot and label the new supply curve accurately.

(ii) Generally well-answered.

(iii) Performance on this question part was mixed, with many candidates performing an accurate calculation but a significant proportion failing to use correct units. Moreover, lower achieving candidates were unable to identify the correct area on the graph.

(iv) Few candidates were able to correctly identify the incidence on producers **and** express it as \$ per tonne.

(f) (i) Generally well-answered. Some candidates did not relate the concepts to the distribution of income, while others mixed the terms.

(ii) The majority of candidates were able to recognise that indirect taxes are regressive, and most were able to provide an appropriate numerical example. A minority attempted to use the relative incidence on consumer/producer to justify inequity.

Recommendations and guidance for the teaching of future candidates

Despite previous reference to rounding, using the correct units and writing inside the boxes, many candidates are failing to follow the instructions in this regard. It is essential that teachers read the subject report and act accordingly if they are to prepare candidates effectively for examinations.

- 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
- Candidates should be reminded that answers must be written in the spaces provided, or on additional sheets
- When candidates are taught to perform quantitative techniques such as “calculate”, it is important that the significance of the result is also addressed. A significant number of candidates appear to focus on providing an accurate theoretical or numerical response without sufficient attention to its meaning or significance
- Candidates should be made aware that questions could be based on any part of the higher level syllabus. Many candidates were not fully prepared for the questions on cartels. Paper 3 provides an opportunity to test learning outcomes which may not be suitable for papers 1 or 2
- Teachers should make candidates aware that, although there may be one central theme to each question, this will not necessarily be the case, so that concepts from more than one section of the IB Economics course may be examined in a particular HP3 question
- Candidates should be reminded to refer to a diagram/data directly when asked to do so in the question.