Economics Assessment in the International Baccalaureate® (IB) Diploma Programme (DP)

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Introduction

The International Baccalaureate® (IB) offers four programmes of international education for 3-19 year olds. The programmes encourage both personal and academic achievement, challenging students to excel in their studies and in their personal development. In order to teach IB programmes, schools must be authorized. Every school authorized to offer IB programmes is known as an IB World School.

The IB Diploma Programme (DP) is taught to students aged 16-19. Research suggests that there are many benefits to choosing the DP. The programme aims to develop students who have excellent breadth and depth of knowledge – students who flourish physically, intellectually, emotionally and ethically. The DP was established in 1968 to provide students with a balanced education, to facilitate geographic and cultural mobility and to promote international understanding. As of 12 November 2014, there are 2,627 schools offering the DP, in 140 different countries worldwide.

The IB is more than its educational programmes and certificates. At our heart we are motivated by a mission to create a better world through education. We value our hard earned reputation for quality, for high standards and for pedagogical leadership. We achieve our goals by working with partners and by actively involving our stakeholders, particularly teachers. We promote intercultural understanding and respect, not as an alternative to a sense of cultural and national identity, but as an essential part of life in the 21st century.

All of this is captured in our mission statement:

The International Baccalaureate® aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

The DP Curriculum

The DP curriculum consists of six subject groups and the DP core, comprising theory of knowledge (TOK), creativity, action, service (CAS) and the extended essay. Through the DP core, students reflect on the nature of knowledge, complete independent research and undertake a project that often involves community service.

Students are required to choose one subject from each of the six academic areas, including one from 'Individuals and Societies'. They can choose a second subject from each academic area except the arts. Economics is one of the subjects that can be chosen from the 'Individuals and Societies' group.

Please refer to figure 1.1 and 1.2 for a breakdown of the number of IB schools by geographical region and the percentage of IB candidates by gender.

IB DP Assessment and Examinations

The IB assesses student work as direct evidence of achievement against the stated goals of the DP courses. DP assessment procedures measure the extent to which students have mastered advanced academic skills in fulfilling these goals, for example:

- analysing and presenting information
- evaluating and constructing arguments
- solving problems creatively.

Basic skills are also assessed, including:

- retaining knowledge
- understanding key concepts
- applying standard methods.

In addition to academic skills, DP assessment encourages an international outlook and intercultural skills, wherever appropriate. Student results are determined by performance against set standards, not by each student's position in the overall rank order.

IB DP Economics

The study of IB economics is essentially about dealing with scarcity, resource allocation and the methods and processes by which choices are made in the satisfaction of human wants. As a dynamic social science, economics uses scientific methodologies that include quantitative and qualitative elements.

The course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. These economic theories are not to be studied in a vacuum—rather, they are to be applied to real world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability.

The ethical dimensions involved in the application of economic theories and policies permeate throughout the economics course as students are required to consider and reflect on human end-goals and values.

The economics course encourages students to develop international perspectives, fosters a concern for global issues, and raises students' awareness of their own responsibilities at a local, national and international level. The course also seeks to develop values and attitudes that will enable students to achieve a degree of personal commitment in trying to resolve these issues, appreciating our shared responsibility as citizens of an increasingly interdependent world.

At both standard level and higher level, candidates are required to study four topics: microeconomics, macroeconomics, international economics and development economics with some sub-topics within these reserved solely for higher level. These sections are assessed by two examinations at standard level and three examinations at higher level. Paper 1 is an extended response paper with questions split into two sections: microeconomics and macroeconomics. Paper 2 is a data response paper with questions split into two sections: international economics and development economics. Paper 3 (higher level only) is a quantitative extension examination.

In addition to the examinations, candidates must submit an internal assessment. Both standard level and higher level economics students must produce a portfolio of three commentaries based on articles from published news media. This assessment enables students to demonstrate the application of their skills and knowledge and understanding of economic theory to real world situations.

How DP Assessment is Scored

In the DP, students receive grades ranging from 7 to 1, with 7 being highest. Students receive a grade for each DP course attempted.

A student's final Diploma result score is made up of the combined scores for each subject. The diploma is awarded to students who gain at least 24 points, subject to certain minimum levels of performance including successful completion of the three essential elements of the DP core.

HL and SL courses differ in scope but are assessed against the same grade descriptors, with HL candidates expected to demonstrate the various elements of the grade descriptors across a greater body of knowledge, understanding and skills.

For the IB DP, there are two examination sessions each year. These are in May and November. For the May session, results are issued on 5 July. For the November session, results are issued on 5 January, in the year following the exam.

Please refer to figures 2.1 and 2.2 to view Economics results for the November 2013 and May 2014 examination sessions in comparison to other subjects from the same group (Individuals and Societies).

IB DP Economics time zone 1: IB Latin America & IB North America

Areas of the programme in which candidates appear to be well prepared

Candidates are very familiar with monopoly and perfect competition and are able to effectively use diagrams and real world examples to strengthen their responses.

Price elasticity of demand is a very popular topic and candidates are able to address questions effectively in this area.

Candidates are able to successfully use diagrams to show the effect of an imposition of indirect tax. Some candidates are able to impressively make reference to the tax regimes of particular countries.

Stronger candidates are able to develop their discussion of labour market reforms to the impact of economic growth, using AD/AS analysis to illustrate this.

Candidates are able to effectively discuss the positive externalities of consumption and market failure policies and to use theory and diagrams to explain how education and healthcare benefit the citizens of a country. Candidates are also able to evaluate policies to increase the consumption of healthcare, such as subsidies, state provision and advertising.

Candidates feel comfortable considering the theory behind demand- and supply-side policies in terms of encouraging economic growth. The highest achieving candidates are able to evaluate how demand-side fiscal and monetary policy can deliver growth in the short term but how demand-side policies are less effective at promoting growth when the economy is operating at, or near, full employment. They are also able to discuss the fact that supply-side policies can be used when the economy is at full employment but the time they take to work makes them less effective when dealing with a current growth problem.

Candidates appear to be well prepared to answer questions on income distribution and understand the types of policies that governments can use to redistribute income. Most also appreciate that there is no simple solution to this problem.

Areas of the programme that appear to be difficult for candidates

Few candidates are aware of any examples of government policies to reduce monopoly power. Candidates tend to refer generally to anti-monopoly laws, rather than explaining a real case of anti-monopoly legislation.

Candidates tend to avoid answering questions on allocation of resources and when they do attempt it, they tend to struggle to evaluate the effects of progressive taxes and transfer payments on efficiency in allocation of resources.

The majority of candidates are only able to use generic examples when discussing market-oriented versus interventionist supply-side policies, such as referring to privatization, rather than discussing a particular industry privatised in a particular country.

Many candidates answer questions on income elasticity of demand without a clear understanding of what it actually is. Candidates are rarely able to examine the implication of income elasticity of demand for producers and the economy as a whole.

Whilst discussing economic growth, candidates struggle to think beyond changes to interest and tax rates and the discussion of economic growth as a long-term change is rarely seen. Candidates also seem unable to identify the benefits of economic growth, lacking a longer-term perspective.

Candidates find the Keynesian/classical debate difficult to explain clearly and tend to confuse price elasticity of supply with price elasticity of demand and vice versa.

IB DP Economics time zone 2: IB Africa, Europe & Middle East & IB Asia-Pacific

Areas of the programme in which candidates appear to be well prepared

Candidates are able to effectively discuss and compare monopoly and perfect competition and to demonstrate an in-depth knowledge of relevant theory.

Candidates are able to provide imaginative examples of diminishing returns at work. They are also able to offer well-labelled diagrams for diminishing returns and also decreasing returns to scale.

Candidates are able to develop sophisticated responses to questions relating to monetary policy and deflationary gaps. Many are able to explain how the gap might be closed by reducing interest rates and to explain the subsequent effects on aggregate demand. Most candidates are able to confidently explain why the neoclassical model is self-correcting.

Candidates are becoming confident in weaving between supply-side and demand-side policies and are able to identify the limitations of both.

Candidates are able to effectively answer questions on price controls, using appropriate diagrams to strengthen their responses, and this is a relatively popular topic. However, very few are able to provide specific real world examples of price controls.

Candidates are able to confidently address the costs of unemployment in their answers, particularly the social costs.

Market-based supply-side policies, such as labour market reforms leading to economic growth, are popular and questions on this area of the syllabus tend to be well answered. Most candidates are able to provide appropriate diagrams to strengthen their responses.

Areas of the programme that appear to be difficult for candidates

Candidates tend to confuse cross price elasticity with price elasticity of demand. The responses to questions on this topic tend to be rather simplistic and lack evaluation.

Candidates often struggle to identify the importance of income elasticity of demand for producers. Many are unable to use the concept of normal and inferior goods and services to explain how firms might have to alter output or change what they supply as incomes change.

Candidates are not familiar with common access resources. Many candidates are not able to explain how a price mechanism can allocate resources, or how its absence would cause goods to be overused.

Candidates struggle to explain how hidden unemployment makes it difficult to measure unemployment.

Standard level candidates in particular tend to confuse stakeholders with shareholders.

Candidates struggle to explain the income, output and expenditure methods used to measure real GDP and when they do attempt to do so, there are often inaccuracies.

Trends

Higher level and standard level paper 1

Candidates in both time zones have always been confident when answering questions on monopoly and perfect competition and they appear to be improving year-on-year in this area of the syllabus. In the past, candidates have made mistakes in diagrams (for example profit maximization shown at less than P=MC) but these mistakes are becoming less common. This is also one of the few areas of the syllabus in which candidates are comfortable with providing real world examples to strengthen their responses.

Candidates are becoming more confident when answering questions on market failure and are able to demonstrate their understanding in this area effectively even when there are no specific questions on this topic in an examination paper.

Lower achieving candidates appear to be avoiding answering questions on theory of the firm.

Diagrams seem to be deteriorating and many candidates label macroeconomics diagrams as though they were microeconomics.

Higher level and standard level paper 2

Candidates in both time zones tend to have more in depth knowledge of international economics compared to development economics. Higher level paper 2 and standard level paper 2 are split into two sections: international economics and development economics. Candidates consistently perform better in the international economics section. Most responses to questions on development economics tend to be superficial, with candidates making sweeping naive statements. For example, very few candidates have good knowledge of micro-credit or development aid and as a result they tend to paraphrase the text given in the examination paper.

There is a tendency for candidates to re-state parts of the text provided in the examination paper, without using their own knowledge to provide the necessary analysis to answer the questions sufficiently. For example, in May 2013 the following question was asked: “Using information from the text/data and your knowledge of economics, discuss the likely impact of an appreciating currency on the performance of the Philippine economy”. Many candidates argued that a strong currency would cause a fall in exports and an increase in imports (this information was provided in the examination paper) but few explained why this was the case.

Questions on tariffs are always very popular and candidates are confident and competent in answering questions on this topic. It is evident that candidates are well-practiced at drawing and labelling tariff diagrams.

Very few candidates are able to define a free trade area, not recognizing that such a trade deal involves liberalized trade on certain products.

A worrying number of candidates do not seem to be aware of the term “price mechanism”.

Higher level paper 3

Candidates are becoming more comfortable with the quantitative examination paper. This is perhaps partly due to the fact that teachers are more comfortable with the expectations of the assessment. Candidates are well-prepared to manipulate and plot numerical data such as calculations of equilibrium price and quantity, the unemployment rate, the multiplier, GDP, GDP per capita and “green GDP”. However, a large proportion of candidates continue to provide numerical answers which are not exact and often the inclusion of the correct units of measurement proves problematical. Candidates also appear to struggle when attempting to calculate the effects of a change in the equations for demand and supply. Analysis of the multiplier process continues to be challenging. Additionally, candidates have difficulty explaining the mathematical basis for economic relationships.

Internal Assessment

Candidates continue to simply summarize economic theory without clearly linking the theory to their chosen article. Many candidates also simply paraphrase an article that has already provided the analysis of an issue, generally agreeing with the author. Too many candidates provide opinions that are not backed up by appropriate economic reasoning. On the other hand, candidates in the past had tended to simply copy generic graphs from textbooks or internet sources without making them specific to the commentary but this is becoming less of an issue year-on-year as candidates become aware of the expectations of this assessment.

The Future of IB Economics Curriculum and Assessment

The landscape of education has changed dramatically over the past 50 to 60 years. Information and communication technology is transforming the way that knowledge is generated, disseminated and communicated in the classroom and this momentum will only grow exponentially. More and more children and adults will have access to education, which is becoming infinitely more global.

Along with these marvellous opportunities come some challenges. For example, many educators continue to bear increasing pressure to "teach to the test", emphasizing memorization of facts as opposed to problem solving. The senior examining team for IB Economics have observed that students appear to be memorizing essays to respond to the questions in higher level paper 1 and standard level paper 1 in particular. In many cases, this results in candidates not responding to the question asked. For example, in May 2014 TZ1 higher level paper 1, the following question was asked "Discuss the consequences of providing a subsidy on the production of rice for producers, consumers and the government". However, the word "subsidy" seemed to trigger some pre-prepared responses and some candidates wrote about what happens at the point of imposition of the subsidy, including detailed analyses of changes to consumer and producer surplus. Others wrote about the pros and cons of a subsidy. Another result of candidates memorizing facts is the majority of candidates are often unable to apply a real world example to strengthen their answer. Without a real world example, candidates are unable to access levels 3 and 4 in the assessment criteria. Therefore, they are self-penalizing by omitting a real world example. Please see figure 3 for an illustration of the assessment criteria used in paper 1.

The IB, true to its mission, is taking a counter approach; our focus remains on helping IB students gain lasting knowledge through innovative assessment methods, which have a positive effect on teaching. This is particularly evident in the new eAssessments that were piloted in 2013 in our Middle Years Programme (MYP) and are due to be launched in 2016. Similarly, there are numerous cases in which Economics is renewing itself to address the world's problems. In DP Economics, we are focussing on helping IB students gain lasting and valuable knowledge. Therefore, the curriculum review team is developing less predictable, more authentic assessments for the new curriculum.

The questions we have to ask now are: What learning must be designed for the students who are born today? What other skills will they need to learn? How will their learning need to evolve in response to a world in which there is an information explosion? What personal attributes are needed in students to set them up to successfully navigate this new world?

In the DP, we have recently introduced approaches to learning (ATL), which focus on the skills of learning to learn. Such skills are fundamental to a world where the information explosion requires us to constantly relearn. Employers and universities increasingly value skills that support continual independent learning; they recognize that academic knowledge alone is not enough. As a result of the ATL project, DP teachers will have more dedicated resources and support to engender these skills in their students. ATL terminology across the programmes will focus on five sets of skills: research skills, social skills, communication skills, thinking skills and self-management skills.

Given the two-way relationship between the real world and economics, it is no wonder that the economic models and theories we teach in pre-university and first-year university economics in much of the world resonate with real world events and behaviours. Indeed, it is perhaps the most common praise that students and teachers of a course like DP economics give of it: economics helps us understand what is going on in the society around us.

However, in light of the recent progress and ancient wisdom of related fields of knowledge and the great weight economics exerts in our power structures, an argument can be made that economists have not engaged *enough* in a genuine dialogue between the real world and their discipline. The economics we teach in much of the world has developed on a more or less consistent trajectory since the 19th century, with an increasingly strong consensus around what is known as the neoclassical synthesis over the past 40 years. This has given economics stability, which again gives comfort to us as its teachers. Nevertheless, it has brought about a situation where economics, firstly, has distanced itself from a rich understanding of human motivation, behaviour and community in favour of an approximation of behaviour based on a set of simplified and sometimes incorrect assumptions and methodologies more concerned with internal consistency than real world accordance. Secondly, given the significant influence of economic models and theories on policies and actions at all levels in our society, this narrow approximation has reinforced real world behaviours and events that are not always conducive to human and planetary well-being, considered in a global and long term sense. Examples of the perils of our time, for which economics arguably needs to take some responsibility, include the gross inequities in opportunity within and between societies, the risky way in which we are testing the carrying capacity of our planet and the systemic failures we are experiencing in many labour markets and in the global financial market.

The challenge to the discipline of economics is to re-establish a holistic, rich and empirically sound relationship with the real world.

History and moral and political philosophy have offered evidence and ideas on the economy since ancient times. There has always been an argument to employ what these disciplines teach us about human well-being to the service of economics; given the nature and scale of our problems, now that argument is pressing. Alternative, emerging views in economics also emerge from the new knowledge of human beings that has become available in various branches of psychology, human biology, neuroscience, complexity science and, of course, development of a more empirical economics itself.

Rather than university departments, the forerunners in renewing our ways of thinking about economics are think-tanks[1], social movements and progressive, more interactive and more democratic media. Research at universities follows, though so far only with a minority of economists.[2] Interestingly and importantly for our review, there is also a growing voice for change in university and pre-university teaching of economics. The Post-Crash Economics Society at the University of Manchester has gained much media attention and similar student-led societies have been established at other UK universities.[3] The Institute for New Economic Thinking has set up a curriculum project called CORE, whose beta curriculum written by economists at leading universities in different parts of the world is now available.[4] The World Economics Association journals have recently featured many articles on renewing economics education.[5] The New South Wales Stage 6 economics curriculum in Australia has a clear orientation towards real world economics. The aim of the course is "to develop students' knowledge, understanding, skills, values and attitudes for effective economic thinking that contributes to social responsible, competent economic decision-making in a changing economy."[6] The Bundesland Berlin's economics curriculum in Germany embraces pluralistic economics most fully of all syllabuses compared.

[1] Some examples of think-tanks are the New Economics Foundation and the Ellen MacArthur Foundation, of social movements TED(x) and HUBs, and of progressive media *The Guardian*, *The New Yorker*, *Le Monde Diplomatique*, Project Syndicate and various blogs by economists and social commentators.
[2] To illustrate the slow movement beyond the neoclassical synthesis, of the 12 economists that were positive enough to big picture thinking to give the curriculum manager an interview at MIT, Harvard and Oxford as part of the curriculum review, only four could be classified to be working with alternative, emerging views.
[3] Please see http://www.post-crasheconomics.com/.
[4] For the CORE beta curriculum, please see http://core-econ.org/.
[5] The three journals of WEA, *Economic Thought, World Economic Review* and *Real-World Economics Review*, can be accessed via http://www.worldeconomicsassociation.org/journals.
[6] For the full New South Wales curriculum, please see http://www.boardofstudies.nsw.edu.au/syllabus_hsc/pdf_doc/economics-st6-syl-from2011.pdf.

Curriculum Review

Curriculum review involves participation from teachers, examiners/moderators, consultants and IB staff. The education committee of the Board of Governors manages the overall academic policy across the four programmes. Each programme has a programme committee, which is responsible for supervising the quality and development of the programme. A published review cycle and timetable aims to ensure that the curriculum is relevant and up to date without the need for unexpected change. Schools worldwide are encouraged to contribute by completing questionnaires and surveys, testing new materials, supplying experienced teachers to attend curriculum review meetings, and commenting on draft guides. The IB also produces teacher support materials such as sample examination papers, lessons, projects and samples of assessed student work. The process of curriculum review is ongoing.

Participants involved in the DP economics review have endorsed several arguments to support evolving our course in a more holistic, rich and empirical direction:

- We teach and learn in theory of knowledge that if a knowledge paradigm is justifiably challenged, alternatives to it need to be actively sought and evaluated. The neoclassical synthesis is challenged by real world events and behaviours.
- The IB mission is about enabling students to build a better world. With such problems as we presently face in the economy, we are likely to help students contribute to a better world by allowing them to examine a greater variety of ways of understanding and solving these problems.
- A modern understanding of relevant learning, as well as the wider evolution of the DP with the 2015 introduction of Approaches to Teaching and Learning, supports a focus on conceptual, contextual and inquiry-based teaching and learning. Helping students develop a ‘big picture’, diversity-embracing understanding of economics, anchoring their learning in real world issues and policy problems, and endorsing inquiry more explicitly all accord with this pedagogy and the developments we see in other DP subjects going through curriculum review.
- We know from our classroom experience that students are most motivated in economics when they see the relevance of the subject to what goes on around them. To test the early development ideas, a small-scale trial was conducted by six teachers into an inquiry based approach to macroeconomics. Students taking part in the trial endorsed virtually uniformly that they felt doing economics through inquiry was more interesting than their more theoretical learning experiences.

With these starting points, the following directions are proposed for the next iteration of the DP economics course.

Draft Aims

- Develop a critical understanding of a range of economics theories, models and tools in the area of microeconomics, macroeconomics and the global economy.
- Apply economics theories, models and tools and analyse economic data to understand the significant economic real world issues, problems and solutions facing individuals and societies.
- Appreciate the 'big picture' of economics:
  - Evaluate the methodologies, contextual nature and limits of economics.
  - Develop a conceptual understanding of the human sphere through the lens of economics.

Draft Assessment Objectives

Assessment objective 1: demonstrate knowledge and understanding of specified content

- Know and understand theories, models and tools of economics.

Assessment objective 2: demonstrate application and analysis of knowledge and understanding

Assessment objective 3: select, use and apply a variety of appropriate skills and techniques

- Employ theories, models and tools of economics (including diagrams) to explain economic real world issues, problems and solutions.
- Choose relevant variables for economic analysis.
- Make relevant assumptions and explain their implications.
- Make hypotheses.
- Research economic data.
- Identify and interpret trends, patterns and relationships in data, with the help of arithmetic calculations and simple statistical techniques where needed, to explain economic real world issues, problems and solutions.

- Cooperate on and share economic analyses orally.
- Produce well-structured written material, using appropriate economic terminology, within specified time limits.

Assessment objective 4: demonstrate synthesis and evaluation

- Evaluate the validity and value of economic data employed in a specific context.
- Evaluate the methodologies, contextual nature and limits of economics in a specific context and more generally.
- Appreciate multiple perspectives on economic issues, problems and solutions.
- Formulate, sustain and synthesize an argument.

Overview of Proposed Curriculum Model

Early iteration of the proposed curriculum model

IB Diploma Programme courses come in two variants. The Standard Level (SL) courses are recommended for 150 hours of teaching and the Higher Level (HL) courses are recommended for 240 hours of teaching. Both are designed to be studied over the two years of the Diploma Programme. Curriculum review teams design two curriculum and assessment pieces: a SL+HL core course studied by students at both levels (and often in the same classroom) and a HL extension. The core course ideally captures the essence of a subject to be enjoyed by both levels of students, while the HL extension is an opportunity to do qualitatively different, in-depth work. However, we cannot make the assumption that all HL students would be the more able or even the most motivated students of economics, as IB DP students' choices form a holistic package. They choose three subjects at HL and three subjects at SL, in addition to completing the three Diploma core elements of an extended essay, a course in theory of knowledge and a programme of creativity, action and service.[7]

'Big picture' of economics

At the start of the course, students are introduced to the role of economics in helping us understand some of the most significant issues we face as individuals and societies. This includes understanding the rough subject matter of economics, the main methodologies of economics and the significance of the characteristically economics way of approaching the human world. Students also have an opportunity to conduct their first inquiries by exploring the interests and behaviours of various economic actors. Throughout the course, students return to six key concepts of economics that transcend individual topics and bind together the

[7] In the US, it is quite common to choose IB DP courses as stand-alone courses instead of studying for the full IB Diploma, much as is done with Advanced Placement courses.

insights of the discipline, and hence provide structure and connectivity in students' learning of economics. Similarly, students return to some critical debates of economics to assess their economics learning from a 'meta-perspective'. They discuss the value and validity of economics methodologies, the contextual nature of economics data, theories, models and tools, and the limits of the discipline.

SL+HL core

The draft SL+HL core course starts with an introduction to the context and concepts of economics. The guiding question of the introductory unit is suggested to be: How does economics help us understand some of the most significant issues we face as individuals and societies? From the beginning, the dual respect for both contributing to the paradigm shift ongoing in economics and economics education and safeguarding continuity in the subject is evident. The prescribed content of the introductory unit focuses on the central 'what' of economics: the economic problem, economic actors and their relationships, different kinds of economic systems, and enablers of and constraints to being able to meet individuals' and societies' material needs and wants. Additionally, students are introduced to the 'how' of economics through examination of the following contextual questions that they will return in slightly different variations throughout the course:

- What is the scope of economics?
- Why do we study the economy?
- Where and how are the findings of economics used?
- What assumptions do economists make?
- What methodologies do economists apply?
- In what ways is economics like a science? How does economics fit within the social sciences? Is economics in some sense an art?
- How has economics as a discipline evolved over time?

Finally, students encounter for the first time the central economics concepts that run throughout the course: choice, efficiency, intervention, interdependence, equity and sustainability.

After the introduction, the draft SL+HL core course is divided into three units: microeconomics, macroeconomics and the global economy. For each unit, work starts with what has been initially labelled as the 'toolkit': the established (and emerging) theories, models and tools of economics that are required to be able to conduct meaningful inquiries later on in the unit. For microeconomics, for instance, the toolkit includes basics of exchange and how exchange happens in a market through a demand/supply analysis. For macroeconomics, the toolkit consists of looking at countries' economic objectives and how

the national economy can be analysed in an aggregate demand/aggregate supply framework.

With the toolkit in place, students are then introduced to two overarching real world issues in each unit, defined so generally as to be relevant everywhere in the world in the time period 2018-2025. The draft issues are:

- Microeconomics:
  - Do consumers and firms behave in the market as predicted by standard microeconomic theory?
  - When and why do markets fail – and does government intervention help?
- Macroeconomics:
  - How and why do countries struggle to meet their economic objectives?
  - How do governments manage the macroeconomy – and how effective are their policies?
- The global economy:
  - What are the opportunities and risks of continued integration of the world economy?
  - What is 'development'– and which pathways lead to development?

For each issue, a set of essential understandings and further established and emerging theories, models and tools are prescribed. Beyond these, teachers and students stand free to choose which specific inquiries are conducted, and which other methods of teaching and learning are required, to examine the real world issues in a contextually relevant way. For example, studies of consumer behaviour in different parts of the world are likely to produce different outcomes, or studies of government policies are likely to vary from one time period to another, depending on political power dynamics. Much teacher support by way of professional development in appropriate social constructivist pedagogies, examples of suitable inquiries and sample unit planners and learning materials are required to achieve a transition towards such more student-centred IB DP economics classrooms.

HL extension

The curriculum review team's work on the HL extension is still in its very early stages, as the team has so far focused on defining the curriculum model for the SL+HL core. The draft intention is to build an HL extension around how economics helps us understand the environmental and ethical 'mega-21 issues' of our time: resource sustainability, local and global environmental problems and management of the effects of climate change on one hand and poverty, inequality and well-being on the other hand. Some further theories, models and tools are suggested to be prescribed, and the review team sees particular potential for including newer approaches to economics in the HL extension, as much recent work is available on these topic areas. Additionally, a proposal is being considered that HL

students would read one economics book on a self-selected aspect of each mega-issue, chosen from a biannually updatable reading list. With increasing access to e-books, this would allow them to pursue their individual interests to some degree – an important aspiration for the HL extension.

Overview of Proposed Assessment Model

Early iteration of the proposed assessment model

The current assessment model of IB DP economics is considered valid and reliable, and particularly two assessment components – an internally assessed portfolio of three commentaries based on news articles and an externally assessed data response paper – are additionally very popular with teachers and students. Hence, less change is proposed to the assessment model than the curriculum model. However, given the centrality of assessment to teacher focus and student interest, it is evident that an aspiration towards a greater real world issues orientation needs to be reflected also in assessment.

The SL+HL core is proposed to be assessed through three components, as today. An essay paper would allow students to demonstrate a holistic understanding of how economic theories, models and tools help them understand real world issues. Formulated as a three-part structured essay, students would be asked to explain, analyse and evaluate a topic anchored in one or more of the six real world issues, with the support of examples and evidence from their inquiries. A data response paper would allow students to demonstrate an understanding of an integrated real world issue or problem and its possible solutions, working with qualitative and quantitative data through a set of structured short-response questions and a mini-essay. The internally assessed portfolio of three commentaries based on news articles is considered fit for purpose for the next iteration of the IB DP course, and is proposed to be kept as is.

The HL extension is proposed to be assessed via a separate examination paper for HL students. The format of this paper is not yet determined, but it would allow students to demonstrate their understanding of the mega-issues.

Conclusion

This paper has suggested that the relationship between the dominant narrative of economics, on which the current IB DP economics course is based, and the real world is a troubled one. If this is the case, it seems we should move towards evaluating how well economic theories, models and tools help us understand the significant real world issues of our time. Consequently, the curriculum review team proposes a curriculum and assessment model which has elements of traditional introductory economics but aims to move the subject in a more real world issues oriented direction through emphasis on student inquiry, the contextual nature of economic analysis, a big picture, more interdisciplinary approach to the subject, and inclusion of emerging views. Additionally, we are aiming to conquer the issues we are experiencing in our current assessments that appear to be affecting the performance of candidates, such as minimizing the chances to reproduce textbook answers and encouraging the use of real world examples in responses. An early iteration of the proposed new curriculum and assessment model has been described in the paper, and feedback from economics colleagues involved in pre-university and first university economics education is keenly welcomed.

Appendix

Figure 1.1

Schools authorized to offer the IB Diploma Programme are grouped by geographical region.

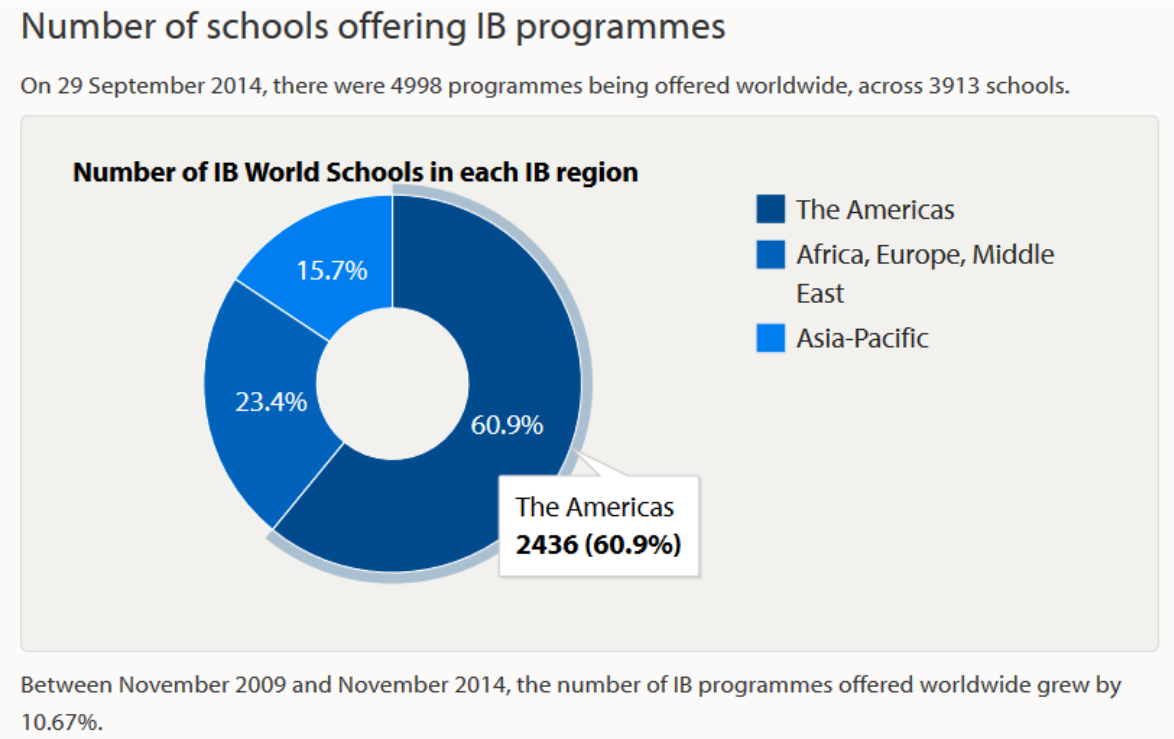

Figure 1.2

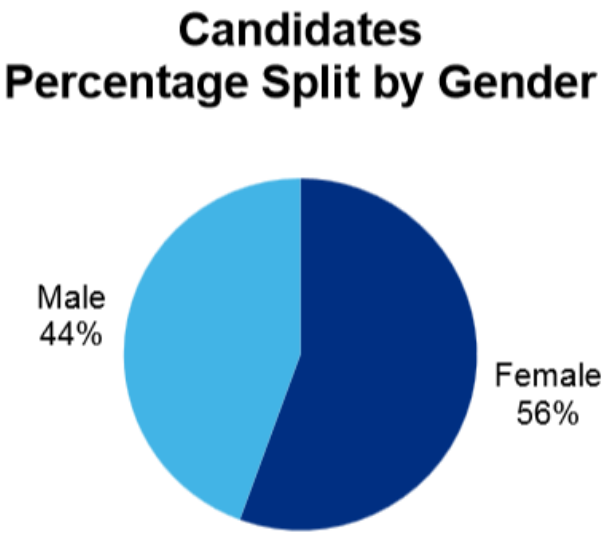

Figure 2.1

November 2013 Results by Subjects (Group 3: Individuals and Societies)

				Percentage of candidates awarded grades							
Group 3	Level	Number of Candidates	Mean Grade	1	2	3	4	5	6	7	Total
BUS.& MAN.	HL	910	4.5	1%	8%	18%	25%	23%	17%	8%	100%
BUS.& MAN.	SL	769	4.7	1%	6%	14%	21%	25%	18%	14%	100%
ECONOMICS	HL	1,430	5.3	0%	2%	10%	16%	21%	29%	22%	100%
ECONOMICS	SL	680	5.1	0%	5%	12%	15%	23%	24%	20%	100%
ENV. AND SOC.	SL	693	4.3	1%	9%	23%	27%	19%	15%	7%	100%
GEOGRAPHY	HL	523	5.1	0%	2%	12%	18%	25%	29%	15%	100%
GEOGRAPHY	SL	234	4.8	0%	6%	15%	21%	22%	20%	16%	100%
HISTORY	HL	2,110	4.7	0%	4%	15%	27%	26%	20%	8%	100%
HISTORY	SL	821	4.4	0%	3%	18%	38%	23%	12%	5%	100%
ITGS	HL	307	4.6	0%	1%	8%	40%	37%	12%	2%	100%
ITGS	SL	119	4.6	3%	2%	12%	24%	38%	19%	3%	100%
PHILOSOPHY	HL	103	5.3	0%	0%	2%	22%	28%	40%	8%	100%
PHILOSOPHY	SL	28	5.0	0%	0%	7%	18%	50%	14%	11%	100%
PSYCHOLOGY	HL	553	5.2	0%	1%	6%	16%	31%	36%	10%	100%
PSYCHOLOGY	SL	152	5.0	0%	3%	13%	16%	32%	22%	14%	100%
SOC.CUL.ANTH.	HL	105	4.4	6%	4%	10%	33%	22%	18%	7%	100%
SOC.CUL.ANTH.	SL	59	4.7	0%	2%	7%	41%	32%	10%	8%	100%
WORLD RELIG.	SL	10	6.2	0%	0%	0%	0%	20%	40%	40%	100%
Group 3 Total		9,606	4.8	0%	4%	14%	24%	25%	22%	12%	100%

Figure 2.2

May 2014 Results by Subjects (Group 3: Individuals and Societies)

				Percentage of candidates awarded grades							
Group 3	Level	Number of Candidates	Mean Grade	1	2	3	4	5	6	7	Total
BUS.& MAN.	HL	6,961	4.7	0%	3%	12%	27%	34%	19%	4%	100%
BUS.& MAN.	SL	5,223	4.8	0%	3%	12%	21%	31%	25%	7%	100%
ECONOMICS	HL	12,046	5.2	0%	2%	8%	17%	29%	31%	13%	100%
ECONOMICS	SL	8,099	4.7	1%	6%	15%	20%	28%	21%	10%	100%
ENV. AND SOC.	SL	9,520	4.2	0%	9%	21%	28%	27%	11%	4%	100%
GEOGRAPHY	HL	4,228	5.2	0%	1%	5%	19%	31%	29%	15%	100%
GEOGRAPHY	SL	3,048	4.7	0%	6%	13%	25%	26%	21%	9%	100%
HISTORY	HL	37,902	4.3	0%	5%	15%	37%	31%	10%	2%	100%
HISTORY	SL	6,774	4.6	0%	3%	11%	30%	38%	15%	2%	100%
ITGS	HL	1,560	4.3	1%	3%	16%	39%	30%	10%	1%	100%
ITGS	SL	1,734	4.3	0%	4%	19%	34%	27%	13%	2%	100%
PHILOSOPHY	HL	1,681	4.8	0%	1%	10%	31%	33%	19%	6%	100%
PHILOSOPHY	SL	2,055	4.7	0%	2%	12%	33%	27%	20%	6%	100%
PSYCHOLOGY	HL	7,711	4.7	0%	5%	12%	24%	36%	20%	4%	100%
PSYCHOLOGY	SL	8,561	4.4	1%	10%	14%	24%	31%	16%	5%	100%
SOC.CUL.ANTH.	HL	363	4.9	1%	4%	9%	22%	32%	22%	10%	100%
SOC.CUL.ANTH.	SL	1,849	4.8	0%	3%	8%	24%	38%	22%	4%	100%
WORLD RELIG.	SL	604	4.7	0%	1%	15%	26%	36%	16%	5%	100%
Group 3 Total		119,919	4.6	0%	5%	13%	29%	31%	17%	5%	100%

Figure 3

Economics higher level paper 1 assessment criteria

Level		Marks
0	The work does not reach a standard described by the descriptors below.	**0**
1	There is little understanding of the specific demands of the question. Relevant economic terms are not defined. There is very little knowledge of relevant economic theory. There are significant errors.	**1–5**
2	There is some understanding of the specific demands of the question. Some relevant economic terms are defined. There is some knowledge of relevant economic theory. There are some errors.	**6–9**
3	There is understanding of the specific demands of the question. Relevant economic terms are defined. Relevant economic theory is explained and applied. Where appropriate, diagrams are included and applied. Where appropriate, examples are used. There is an attempt at synthesis or evaluation. There are few errors.	**10–12**
4	There is clear understanding of the specific demands of the question. Relevant economic terms are clearly defined. Relevant economic theory is clearly explained and applied. Where appropriate, diagrams are included and applied effectively. Where appropriate, examples are used effectively. There is evidence of appropriate synthesis or evaluation. There are no significant errors.	**13–15**

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