

Economics guide

First assessment 2022



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Economics guide

First assessment 2022

Diploma Programme Economics guide

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IB 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.



IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

As IB learners we strive to be:

INQUIRERS

We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.

KNOWLEDGEABLE

We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.

THINKERS

We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.

COMMUNICATORS

We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.

PRINCIPLED

We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.

OPEN-MINDED

We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.

CARING

We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.

RISK-TAKERS

We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.

BALANCED

We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.

REFLECTIVE

We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

The IB learner profile represents 10 attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities.

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Purpose of this document

This publication is intended to guide the planning, teaching and assessment of the subject in schools. Subject teachers are the primary audience, although it is expected that teachers will use the guide to inform students and parents about the subject.

This guide can be found on the subject page of the programme resource centre at resources.ibo.org, a password-protected IB website designed to support IB teachers. It can also be purchased from the IB store at store.ibo.org.

Additional resources

Additional publications such as specimen papers and markschemes, teacher support materials, subject reports and grade descriptors can also be found on the programme resource centre. Past examination papers as well as markschemes can be purchased from the IB store.

Teachers are encouraged to check the programme resource centre for additional resources created or used by other teachers. Teachers can provide details of useful resources, for example: websites, books, videos, journals or teaching ideas.

Acknowledgment

The IB wishes to thank the educators and associated schools for generously contributing time and resources to the production of this guide.

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The Diploma Programme

The Diploma Programme is a rigorous pre-university course of study designed for students in the 16 to 19 age range. It is a broad-based two-year course that aims to encourage students to be knowledgeable and inquiring, but also caring and compassionate. There is a strong emphasis on encouraging students to develop intercultural understanding, open-mindedness, and the attitudes necessary for them to respect and evaluate a range of points of view.

The Diploma Programme model

The course is presented as six academic areas enclosing a central core (see figure 1). It encourages the concurrent study of a broad range of academic areas. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Figure 1

The Diploma Programme model



Choosing the right combination

Students are required to choose one subject from each of the six academic areas, although they can, instead of an arts subject, choose two subjects from another area. Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL.

At both levels, many skills are developed, especially those of critical thinking and analysis. At the end of the course, students' abilities are measured by means of external assessment. Many subjects contain some element of coursework assessed by teachers.

The core of the Diploma Programme model

All Diploma Programme students participate in the three course elements that make up the core of the model.

Theory of knowledge (TOK) is a course that is fundamentally about critical thinking and inquiry into the process of knowing rather than about learning a specific body of knowledge. The TOK course examines the nature of knowledge and how we know what we claim to know. It does this by encouraging students to analyse knowledge claims and explore questions about the construction of knowledge. The task of TOK is to emphasize connections between areas of shared knowledge and link them to personal knowledge in such a way that an individual becomes more aware of his or her own perspectives and how they might differ from others.

Creativity, activity, service (CAS) is at the heart of the Diploma Programme. The emphasis in CAS is on helping students to develop their own identities, in accordance with the ethical principles embodied in the IB mission statement and the IB learner profile. It involves students in a range of activities alongside their academic studies throughout the Diploma Programme. The three strands of CAS are creativity (arts, and other experiences that involve creative thinking), activity (physical exertion contributing to a healthy lifestyle) and service (an unpaid and voluntary exchange that has a learning benefit for the student). Possibly, more than any other component in the Diploma Programme, CAS contributes to the IB's mission to create a better and more peaceful world through intercultural understanding and respect.

The extended essay, including the world studies extended essay, offers the opportunity for IB students to investigate a topic of special interest, in the form of a 4,000-word piece of independent research. The area of research undertaken is chosen from one of the students' six Diploma Programme subjects, or in the case of the interdisciplinary world studies essay, two subjects, and acquaints them with the independent research and writing skills expected at university. This leads to a major piece of formally presented, structured writing, in which ideas and findings are communicated in a reasoned and coherent manner, appropriate to the subject or subjects chosen. It is intended to promote high-level research and writing skills, intellectual discovery and creativity. An authentic learning experience, it provides students with an opportunity to engage in personal research on a topic of choice, under the guidance of a supervisor.

Approaches to teaching and approaches to learning

Approaches to teaching and learning across the Diploma Programme refers to deliberate strategies, skills and attitudes which permeate the teaching and learning environment. These approaches and tools, intrinsically linked with the learner profile attributes, enhance student learning and assist student preparation for the Diploma Programme assessment and beyond. The aims of approaches to teaching and learning in the Diploma Programme are to:

- empower teachers as teachers of learners as well as teachers of content
- empower teachers to create clearer strategies for facilitating learning experiences in which students are more meaningfully engaged in structured inquiry and greater critical and creative thinking

- promote both the aims of individual subjects (making them more than course aspirations) and linking previously isolated knowledge (concurrency of learning)
- encourage students to develop an explicit variety of skills that will equip them to continue to be actively engaged in learning after they leave school, and to help them not only obtain university admission through better grades but also prepare for success during tertiary education and beyond
- enhance further the coherence and relevance of the students' Diploma Programme experience
- allow schools to identify the distinctive nature of an IB Diploma Programme education, with its blend of idealism and practicality.

The five approaches to learning (developing thinking skills, social skills, communication skills, self-management skills and research skills) along with the six approaches to teaching (teaching that is inquiry-based, conceptually focused, contextualized, collaborative, differentiated and informed by assessment) encompass the key values and principles that underpin IB pedagogy.

The IB mission statement and the IB learner profile

The Diploma Programme aims to develop in students the knowledge, skills and attitudes they will need to fulfil the aims of the IB, as expressed in the organization's mission statement and the learner profile. Teaching and learning in the Diploma Programme represent the reality in daily practice of the organization's educational philosophy.

Academic honesty

Academic honesty in the Diploma Programme is a set of values and behaviours informed by the attributes of the learner profile. In teaching, learning and assessment, academic honesty serves to promote personal integrity, engender respect for the integrity of others and their work, and ensure that all students have an equal opportunity to demonstrate the knowledge and skills they acquire during their studies.

All coursework—including work submitted for assessment—is to be authentic, based on the student's individual and original ideas with the ideas and work of others fully acknowledged. Assessment tasks that require teachers to provide guidance to students or that require students to work collaboratively must be completed in full compliance with the detailed guidelines provided by the IB for the relevant subjects.

For further information on academic honesty in the IB and the Diploma Programme, please consult the IB publications *Academic honesty in the IB educational context*, *Effective citing and referencing*, *Diploma Programme: From principles into practice* and *General regulations: Diploma Programme*. Specific information regarding academic honesty as it pertains to external and internal assessment components of this Diploma Programme subject can be found in this guide.

Acknowledging the ideas or work of another person

Coordinators and teachers are reminded that candidates must acknowledge all sources used in work submitted for assessment. The following is intended as a clarification of this requirement.

Diploma Programme candidates submit work for assessment in a variety of media that may include audio-visual material, text, graphs, images and/or data published in print or electronic sources. If a candidate uses the work or ideas of another person, the candidate must acknowledge the source using a standard style of referencing in a consistent manner. A candidate's failure to acknowledge a source will be investigated by the IB as a potential breach of regulations that may result in a penalty imposed by the IB final award committee.

The IB does not prescribe which style(s) of referencing or in-text citation should be used by candidates; this is left to the discretion of appropriate faculty/staff in the candidate's school. The wide range of subjects, three response languages and the diversity of referencing styles make it impractical and restrictive to insist on particular styles. In practice, certain styles may prove most commonly used, but schools are free to

choose a style that is appropriate for the subject concerned and the language in which candidates' work is written. Regardless of the reference style adopted by the school for a given subject, it is expected that the minimum information given includes: name of author, date of publication, title of source, and page numbers and URL as applicable.

Candidates are expected to use a standard style and use it consistently so that credit is given to all sources used, including sources that have been paraphrased or summarized. When writing text candidates must clearly distinguish between their words and those of others by the use of quotation marks (or other method, such as indentation) followed by an appropriate citation that denotes an entry in the bibliography. If an electronic source is cited, the date of access must be indicated. Candidates are not expected to show faultless expertise in referencing but are expected to demonstrate that all sources have been acknowledged. Candidates must be advised that audio-visual material, text, graphs, images and/or data published in print or in electronic sources that is not their own must also attribute the source. Again, an appropriate style of referencing/citation must be used.

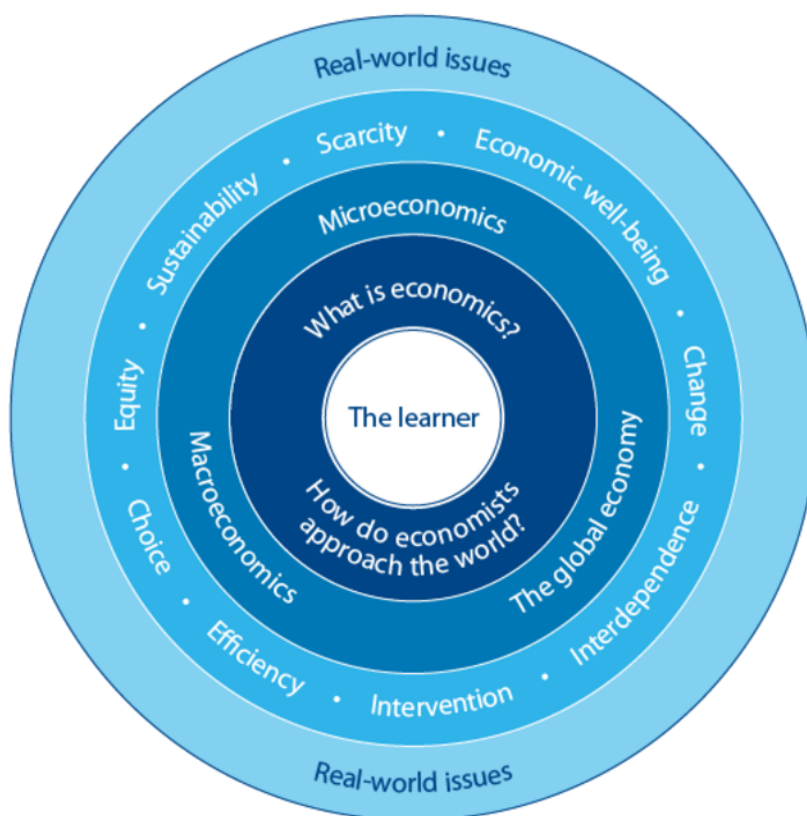
Learning diversity and learning support requirements

Schools must ensure that equal access arrangements and reasonable adjustments are provided to candidates with learning support requirements that are in line with the IB documents *Access and inclusion policy* and *Learning diversity and inclusion in IB programmes*.

The documents *Meeting student learning diversity in the classroom* and *The IB guide to inclusive education: a resource for whole school development* are available to support schools in the ongoing process of increasing access and engagement by removing barriers to learning.

Nature of the subject

Figure 2
Overview of the curriculum model



Economics is an exciting, dynamic subject that allows students to develop an understanding of the complexities and **interdependence** of economic activities in a rapidly changing world.

At the heart of economic theory is the problem of **scarcity**. While the world's population has unlimited needs and wants, there are limited resources to satisfy these needs and wants. As a result of this scarcity, **choices** have to be made. The economics course, at both SL and HL, uses economic theories to examine the ways in which these choices are made:

- at the level of producers and consumers in individual markets (microeconomics)
- at the level of the government and the national economy (macroeconomics)
- at an international level where countries are becoming increasingly interdependent through international trade and the movement of labour and capital (the global economy).

The choices made by economic agents (consumers, producers and governments) generate positive and negative outcomes and these outcomes affect the relative **well-being** of individuals and societies. As a social science, economics examines these choices through the use of models and theories. The Diploma Programme (DP) economics course allows students to explore these models and theories, and apply them,

using empirical data, through the examination of the following six real-world issues which are posed as economic questions:

- How do consumers and producers make choices in trying to meet their economic objectives?
- When are markets unable to satisfy important economic objectives—and does government intervention help?
- Why does economic activity vary over time and why does this matter?
- How do governments manage their economy and how effective are their policies?
- Who are the winners and losers of the integration of the world's economies?
- Why is economic development uneven?

Economic theory suggests that the material well-being of societies is related to the quantity of goods and services that are available to that society. As a result, economic growth and increased **efficiency** have become prominent goals. However, there are two important global economic issues related to these goals and the choices made by economic agents. These are the ways in which economic activity impacts the environment, and the challenges facing the world in terms of fair access to resources, goods and services. When exploring these significant global issues, **sustainability** and **equity** become key concepts for DP economics students to understand.

In all areas of economic activity, the economic agents can be divided up into the private sector (consumers and producers) and the public sector (governments). To different extents and with different outcomes, the public sector in any economy assumes some responsibility for monitoring and regulating the behaviour of the private sector. This government **intervention** is a significant concept that appears throughout the course and students are expected to critically evaluate the balance between the market forces of the private sector and intervention by governments.

Given the rapidly changing world, economic activity and its outcomes are constantly in flux. Therefore, students are encouraged, throughout the course, to research current real-world issues. Through their own inquiry, it is expected that students will be able to appreciate both the values and limitations of economic models in explaining real-world economic behaviour and outcomes.

By focusing on the six real-world issues through the nine key concepts (scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence and intervention), students of the economics course will develop the knowledge, skills, values and attitudes that will encourage them to act responsibly as global citizens.

Distinction between SL and HL

The HL course in economics differs from the SL course in economics in terms of the:

- recommended hours devoted to teaching (240 hours for HL compared to 150 hours for SL)
- extra depth and breadth required (extension material for HL only)
- nature of the examination questions. Both SL and HL students develop quantitative skills, but HL students will need to further develop these as appropriate, in analysing and evaluating economic relationships in order to provide informed policy advice. These skills are specifically assessed in HL paper 3.

Economics and the core

Economics and theory of knowledge

As with other disciplines within individuals and societies, there is a variety of ways to gain knowledge in economics. For example, data and evidence collection, experimentation, observation, inductive and deductive reasoning, can all be used to help explain patterns of behaviour and lead to knowledge claims. Students in individual and societies subjects are required to evaluate the resulting knowledge claims by exploring questions concerning their validity, reliability, credibility and certainty, as well as individual and cultural perspectives on them. For example, at the core of economic theories are important assumptions

such as the *ceteris paribus* (all other things being equal) assumption. Students must be aware of these assumptions and be able to critically assess how these might limit reliability in the application of economic theory.

Through inquiry, students in the economics course will be challenged to:

- obtain evidence related to economic theories in different contexts
- explain how the evidence that they have collected is supported by economic theory
- understand the limitations of economic theory in explaining real-world behaviour.

The relationship between each subject and TOK is of crucial importance and fundamental to the DP. Having followed a course of study in individuals and societies, students should be able to reflect critically on the various ways of knowing and the methods used in human sciences, and in doing so, become the “inquiring, knowledgeable and caring young people” of the IB mission statement.

During the economics course, a number of questions will arise that highlight the relationships between TOK and economics. Some of the knowledge questions that might be considered include the following:

- Are there fundamental differences between economics and other disciplines or areas of knowledge? If so, are these differences more than just methodological differences?
- How have technological advances affected the nature and practices of economics?
- Do emotion and intuition have a role in economics?
- What factors affect the reliability and validity of economic models?
- What is the difference between deductive and inductive reasoning? Is economics based on deductive or inductive reasoning or both?
- Does the inability of economics to perform controlled experiments mean that economics cannot be scientific in its approach to understanding the world?
- What are the implications of accepting that knowledge in economics changes over time?

Economics and the extended essay

An extended essay (EE) in economics provides students with an opportunity to undertake in-depth research in an area related to the subject. Throughout the process, students will develop their research skills by selecting and using relevant sources. Students should select and apply relevant economic theories to develop an argument in response to a clearly defined research question based on an economics topic. The essay topic may relate to an area of the DP economics course, but this is not a requirement and other areas of the wider subject may be explored.

Students should take a recent economic issue, policy or event, and then gather data and apply economic theories, models and tools to evaluate it. The economic issue, policy or event must have taken place up to five years prior to the beginning of the research process.

Appropriate resources for an EE in economics could include both primary and secondary data, obtained from economics textbooks, general economics books, newspapers and magazines, government publications, databanks, interviews, or surveys.

An EE in economics is not an extension of the internal assessment task for the subject. Students must ensure that they understand the clear distinction between the internal assessment and the EE.

Indication of the possible range of topics, research questions and approaches that can be considered can be found in the *Extended essay guide* in the section “Economics: Subject-specific guidance”.

Economics and creativity, activity, service

The economics course highlights many economic issues that have local, national and global manifestations. Students develop awareness of these issues, and by investigating their own examples of such issues as part of the course, they deepen their understanding. Through CAS, students can further extend their awareness and take valuable steps in working towards alleviating economic problems through their own actions and through motivating others to take action.

Economics students might choose to engage with CAS in the following ways.

- Plan, participate and implement an activity to help raise awareness in the community about any number of the Sustainable Development Goals (SDGs) including: poverty, reduced inequalities, decent work and economic growth, innovation and infrastructure, responsible consumption and production.
- Establish a group within the school to promote one of the official “global days”, for example:
 - International Women’s Day to highlight and promote the importance of gender equity in employment (8 March)
 - World No Tobacco Day to highlight and raise awareness of the social costs of smoking (31 May)
 - Earth Day to highlight and promote the role of responsible consumption in achieving sustainability (22 April).
- Establish a Fairtrade club to raise awareness of the importance of responsible consumption.

Economics and the IB learner profile

The economics course is closely aligned with the IB mission which “aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.” (IB mission statement). This mission is further delineated through the attributes of the IB learner profile, and the economics curriculum offers students opportunities to demonstrate and develop these attributes through the implicit and explicit content of the course.

IB learners are:	Economics students will:
Inquirers	undertake independent and collaborative investigations into real-world economic issues, such as: disparities in economic development; concentration of economic power; inequity in the distribution of income; winners and losers in the global economy.
Knowledgeable	utilize economic concepts, theories and models with confidence to gain a more sophisticated understanding of current economic issues, data and events.
Thinkers	synthesize and evaluate economic information and data to draw conclusions and develop balanced, well-supported arguments.
Communicators	compose clear and concise analytical commentaries utilizing the language and tools of economics.
Principled	act with integrity, critically evaluating economic data and evidence understanding that the possession of knowledge carries with it an ethical responsibility.
Open-minded	understand that different economic schools of thought identify different causes and therefore offer different solutions to economic problems which establishes economics as a highly contentious and dynamic discipline.
Caring	appreciate that economics is a social science that has a human impact, influencing the well-being of individuals and societies.
Risk-takers	utilize economic knowledge and understanding to develop and present creative policy recommendations for real-world economic issues.
Balanced	consider multiple perspectives when developing a position on an economic issue and support any judgments made with effective and balanced reasoning.
Reflective	compare the role of positive versus normative economics in the development of economic theory, considering the ability of economists to achieve objectivity within the context of the value-laden social sciences.

Economics and international-mindedness

The economics course promotes international-mindedness through a curriculum that allows for the exploration of economics within a decidedly global context. Throughout the course, teachers have the freedom to choose a range of both local and global examples, case studies and inquiries that are most relevant to their student populations in order to animate the main content. This flexibility ensures that the course remains relevant and responsive to the rapidly changing global environment.

While economics has its foundations in theory, the course places emphasis on the application of economic theory to real-world issues. By examining economic issues and policy interventions at local, national and global levels, students are empowered to use their knowledge and understanding of economics to seek solutions to issues that matter to them. Economics provides students with the analytical tools necessary to develop a deep understanding of major global challenges dealing with issues of equity, sustainability, the concentration of economic power and increasing interdependence.

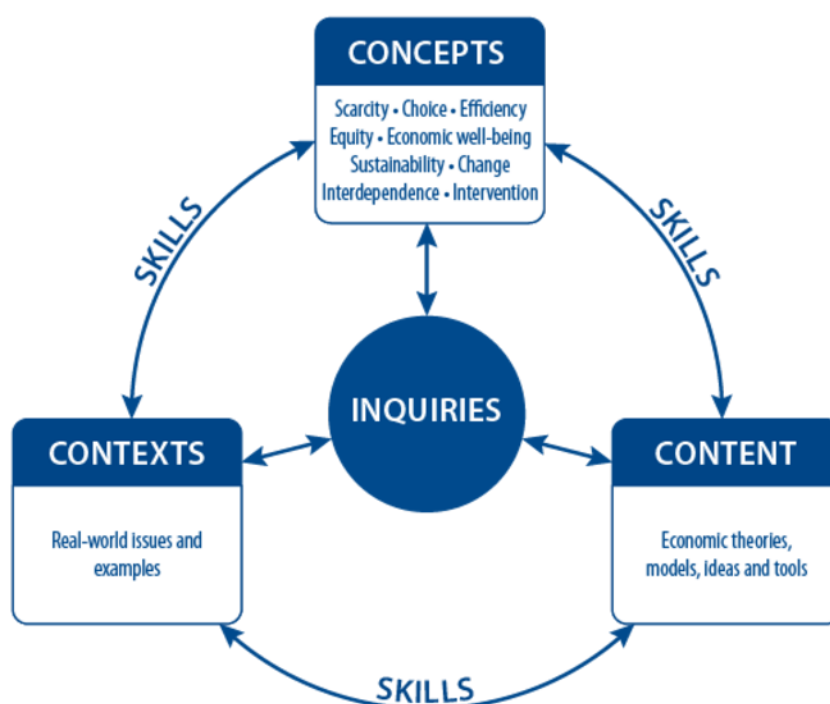
The internationally minded economics student engages actively with the content and has a highly developed agency when exploring the economic issues facing individuals and societies. In this context, agency refers to the ability of individuals to act independently and make their own economic choices. This includes having control over their actions and consequences.

Approaches to teaching and learning in economics

The economics course is underpinned by a number of pedagogical principles. In particular, the teaching of economics is conceptually focused and grounded in real-world issues. The relationship between concepts, content and contexts can be illustrated in the following graphic.

Figure 3

The relationship between inquiries, concepts, content and contexts in economics



As figure 3 indicates, the three components of inquiries are of equal relevance and teachers may choose any one as a starting point for their teaching. **Concepts** are anchored in the **content** of economics—its theories, models, ideas and tools—and are given **context** through the study of real-world issues and examples. Together these components help students to acquire a holistic and integrated understanding of economics as a discipline.

The economics course is focused on inquiry-based teaching and learning, in which students are given the opportunity to explore economic theories or global issues using real-world examples. The teaching of the economics content should, therefore, be supported by focusing on real-world issues and applying real-world examples. In some of the assessments, using real-world examples will be the basis of the response and an argument must be formed around them. This argument should then demonstrate the student's understanding of economics through the lens of a real example rather than the response being purely theoretical. In doing this the students will be able to go beyond merely "stating" an example in a theoretical response. Students need to unpack their examples to clearly demonstrate/analyse/justify/evaluate why they are relevant examples for particular economic issues.

While inquiry permeates the whole course, the [assessment objective 3 \(AO3\)](#) topics that require more depth are considered areas that lend themselves particularly well to this approach. However, it is important

that teachers know that inquiry as a teaching and learning strategy is not only applicable for AO3 topics. Teachers need to see the value of this approach in terms of allowing students to develop and demonstrate higher-order thinking skills. It is important to highlight that inquiry needs to be taking place to ensure students are actively involved in researching economic issues. These inquiries may take the form of suggested statements that are provided in the microeconomics, macroeconomics and the global economy units in the guide and further explored through examples in the *Economics teacher support material (TSM)*. This inquiry approach will aid students in developing critical thinking and problem-solving skills, an appreciation of different viewpoints, collaboration and reflective discussion.

Economic skills are important to the study of DP economics and reflect the subject's distinctive approach. Teaching and learning these skills enriches the students' understanding of economics and enables them to apply these to various economic theories, models, ideas and tools. It is essential that the skills should be covered throughout the course and that they are introduced and integrated where appropriate in relation to the concepts, content and context at both SL and HL. Students are expected to demonstrate competence in the use of economic skills in the external assessment and internal assessment. These skills are covered generally in the "Approaches to teaching and learning" section in the TSM while the more subject-specific skills are addressed in assessment objectives.

The nine key concepts that underpin the economics course (scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence and intervention) are integrated into the conceptual understandings of all the units to ensure that a conceptual thread is woven throughout the course.

Conceptually focused teaching helps learners to:

- organize new information by categorizing groups of theories, ideas, tools, or facts according to patterns of similarity or difference
- deepen their understanding of today's complex and dynamic economic environment
- approach concepts and content in different ways through multiple perspectives
- make connections with other subjects to enhance interdisciplinary learning.

Conceptual understanding therefore enhances the student's overall understanding of the course, making the subject more meaningful. This understanding assists students in showing clear evidence of synthesis and evaluation in their responses to questions asked in the external assessment (even though the questions may not be explicitly concept based). In the internal assessment, however, students must use the concepts as a lens through which to analyse their commentaries.

The definition, relative importance and relationship of each of the nine key concepts to the subject of economics may be the subject of debate. Teachers should explore how in different contexts these concepts may be understood and applied differently. The table in Figure 4 provides brief understandings of how the key concepts may be initially understood in relation to the course.

Figure 4

The relationships between the key concepts and the course

Key concept	Understanding in relation to the course
Scarcity	The central concept in economics, scarcity refers to the limited availability of economic resources relative to society's unlimited demand for goods and services. Thus, economics is the study of how to make the best possible use of scarce or limited resources to satisfy unlimited human needs and wants.
Choice	Since resources are scarce, economics is a study of choices. It is clear that not all needs and wants can be satisfied; this necessitates choice and gives rise to the idea of opportunity cost. Economic decision-makers continually make choices between competing alternatives, and economics studies the consequences of these choices, both present and future.
Efficiency	Efficiency is a quantifiable concept, determined by the ratio of useful output to total input. Allocative efficiency refers to making the best possible use of scarce

Key concept	Understanding in relation to the course
	resources to produce the combinations of goods and services that are optimum for society, thus minimizing resource waste.
Equity	In contrast to equality, which describes situations where economic outcomes are similar for different people or different social groups, equity refers to the concept or idea of fairness. Fairness is a normative concept, as it means different things to different people. In economics, inequity is often interpreted to refer to inequality, which may apply to the distribution of income, wealth or human opportunity. Irrespective of economic system, inequity or inequality remain significant issues both within and between societies. The degree to which markets versus governments should, or are able to, create greater equity or equality in an economy is an area of much debate.
Economic well-being	<p>Economic well-being is a multidimensional concept relating to the level of prosperity and quality of living standards enjoyed by members of an economy. It includes:</p> <ul style="list-style-type: none"> • present and future financial security • the ability to meet basic needs • the ability to make economic choices permitting achievement of personal satisfaction • the ability to maintain adequate income levels over the long term. <p>There are broad disparities in economic well-being both within and across nations.</p>
Sustainability	Sustainability in economics refers to the ability of the present generation to meet its needs without compromising the ability of future generations to meet their own needs. It refers to limiting the degree to which the current generation's economic activities create harmful environmental outcomes involving resource depletion or degradation that will negatively affect future generations. Sustainability is proving increasingly important in all economic analysis as planetary boundaries are pushed to the limit.
Change	An understanding of the concept of change is essential in economics. The economic world is in a continual state of flux and economists must be aware of this and adapt their thinking accordingly. The concept of change is important both in economic theory and the empirical world that economics studies. In economic theory, economics focuses not on the level of the variables it investigates, but on their change from one situation to another. Empirically, the world that is studied by economists is always subject to continuous and profound change at institutional, structural, technological, economic and social levels.
Interdependence	Individuals, communities and nations are not self-sufficient. Consumers, companies, households, workers, and governments, all economic actors, interact with each other within and, increasingly, across nations in order to achieve economic goals. The greater the level of interaction, the greater will be the degree of interdependence. In a highly interdependent economic world, decisions by certain economic actors are likely to generate many, and often unintended, economic consequences for other actors. A consideration of possible economic consequences of interdependence is essential when conducting economic analysis.
Intervention	Intervention in economics usually refers to government involvement in the workings of markets. While markets are considered the most efficient mechanism to organize economic activity, it is recognized that they may fail to

Key concept	Understanding in relation to the course
	achieve certain societal goals, such as equity, economic well-being, or sustainability. Failure to achieve such goals may be considered sufficient reason for government intervention. In the real world, there is often disagreement among economists and policymakers on the need for, and extent of, government intervention. There is a considerable debate about the merits of intervention versus the free market.

The *Economics teacher support material* (TSM) provides further guidance on the approaches to teaching and learning in the course.

Engaging with sensitive topics

The study of economics provides students with an opportunity to engage with exciting, stimulating and personally relevant topics and issues. However, it should be noted that often such topics and issues can also be sensitive and personally challenging. Teachers should be aware of this and provide guidance to students on how to approach and engage with such topics and issues in a responsible and inclusive manner, providing due consideration to questions and issues that may arise.

Prior learning

The economics course requires no specific prior learning of economics. No particular background in terms of specific subjects studied for national or international qualifications is expected or required. The specific skills of the economics course are developed within the context of the course itself. However, the ability to understand and explain abstract concepts, and write in a logically structured manner are distinct advantages in economics as is completing the individuals and societies course in the Middle Years Programme (MYP).

Links to the Middle Years Programme

The MYP individuals and societies subject group involves inquiry into historical, contemporary, geographical, political, social, economic, religious, technological and cultural contexts that influence and impact on the lives and environments of people and communities. This subject group therefore provides a very useful foundation for students who go on to study economics in the DP.

The concept-based approach to teaching adopted in the MYP is also relevant to this economics course, with several of the same concepts explored in a more comprehensive, in-depth and critical manner than expected in the MYP. These concepts are woven through the entire economics syllabus and are meant to provide a common framework for exploring micro, macro and global economics.

Inquiry-based learning is central to individuals and societies courses in both the MYP and the DP providing students with opportunities to independently and collaboratively investigate and analyse global issues. As inquiry develops curiosity and promotes critical and creative thinking, it is important to emphasize that pedagogically, the Diploma Programme economics learning environment should emulate, as far as possible, the MYP experience—students should explore economics in action through the investigation of relevant issues, utilizing real-world data and examples.

MYP students in individuals and societies are required to hone their critical thinking and communication skills, two of the MYP's four assessment objectives. This establishes an important foundation for the internal assessment component in Diploma Programme economics. As part of their internal assessment, students are expected to write clear and concise analytical commentaries on current news articles utilizing the language and tools of economics.

Thus, the study of economics naturally extends the skills developed in MYP individuals and societies courses. Furthermore, students' organization, collaboration, and communication strategies that began in MYP will become more sophisticated as they move through the Diploma Programme economics course.

Links to the Career-related Programme

In the IB Career-related Programme (CP), students study at least two DP subjects, a core consisting of four components and a career-related study, which is determined by the local context and aligned with student needs. Courses can be chosen from any group of the DP, and it is possible to study more than one course from the same group (for example, visual arts and film).

Economics develops the student's logical reasoning skills which are highly desired across a range of career-related pursuits. Economics may be an ideal choice for CP students considering careers in management, finance, law, research, government and non-governmental organizations, international relations/development, and so on.

The DP economics course emphasizes the development of: strong written, verbal, and diagrammatic communication skills; critical and complex thinking; and ethical considerations that will assist students in preparing for the future global workplace. This in turn fosters the IB learner profile attributes that are transferable to the entire CP, providing relevance and support for the student's learning.

For CP students, DP courses can be studied at SL or HL. Schools can explore opportunities to integrate CP students with DP students.

Aims

Individuals and societies aims

The aims of all subjects in individuals and societies are to:

- encourage the systematic and critical study of: human experience and behaviour; physical, economic and social environments; the history and development of social and cultural institutions
- develop in the student the capacity to identify, analyse critically and evaluate theories, concepts and arguments about the nature and activities of the individual and society
- enable the student to collect, describe and analyse data used in studies of society, and to test hypotheses and interpret complex data and source material
- promote the appreciation of the way in which learning is relevant to both the culture in which the student lives and the culture of other societies
- develop an awareness in the student that human attitudes and opinions are widely diverse and that a study of society requires an appreciation of such diversity
- enable the student to recognize that the content and methodologies of the individuals and societies group are contestable and that their study requires the tolerance of uncertainty.

Economics aims

The aims of the economics course at SL and HL are to enable students to:

- develop a critical understanding of a range of economic theories, models, ideas and tools in the areas of microeconomics, macroeconomics and the global economy
- apply economic theories, models, ideas and tools and analyse economic data to understand and engage with real-world economic issues and problems facing individuals and societies
- develop a conceptual understanding of individuals' and societies' economic choices, interactions, challenges and consequences of economic decision-making.

Assessment objectives

By the end of the economics course, students are expected to achieve the following assessment objectives (AOs).

1. Knowledge and understanding (AO1)
 - Demonstrate knowledge and understanding of specified content
 - Demonstrate knowledge and understanding of the common SL/HL syllabus
 - Demonstrate knowledge and understanding of current economic issues and data
 - At **HL only**: demonstrate knowledge and understanding of the extension topics
2. Application and analysis (AO2)
 - Apply economic concepts and theories to real-world situations
 - Identify and interpret economic data
 - Analyse how economic information is used effectively in particular contexts
 - In the internal assessment task: explain the link between key economic concepts and economic commentaries
 - At **HL only**: demonstrate application and analysis of the extension topics
3. Synthesis and evaluation (AO3)
 - Examine economic concepts and theories
 - Use economic concepts and examples to construct and present an argument
 - Discuss and evaluate economic information and theories
 - At **HL only**:
 - demonstrate economic synthesis and evaluation of the extension topics
 - select and use economic data using economic theory to make policy recommendations.
4. Use and application of appropriate skills (AO4)
 - Produce well-structured written material, using appropriate economic theory, concepts and terminology
 - Produce and use diagrams to help explain economic theory, concepts and real-world issues
 - Select, interpret and analyse appropriate extracts from the news media
 - Interpret appropriate data sets
 - Use quantitative techniques to identify, explain and analyse economic relationships

Assessment objectives in practice

Assessment objective	Paper 1 – SL and HL		Paper 2 – SL and HL	Paper 3 – HL only	Internal assessment SL and HL
	Part a	Part b			
AO1 —knowledge and understanding	✓	✓	✓	✓	✓
AO2 —application and analysis	✓	✓	✓	✓	✓
AO3 —synthesis and evaluation		✓	✓	✓	✓
AO4 —use and application of appropriate skills	✓	✓	✓	✓	✓

Command terms

Command terms are classified according to the AO levels.

Command terms related to cognitive demand progress from AO1 to AO3, while AO4 command terms are specific to particular skills. Teachers and students must be familiar with the assessment objectives and the command terms in order to understand the depth of treatment required in teaching and in examination questions.

For use of command terms in examination questions, please refer to the “[Assessment](#)” section of this guide.

The command terms within each assessment objective are listed in alphabetical order in the following table. Definitions of the command terms are listed in the “[Glossary of command terms](#)” in the appendix to this guide.

Assessment objective	Key command term	Depth
AO1 —knowledge and understanding	Define Describe List Outline State	These terms require students to learn and comprehend the meaning of information.
AO2 —application and analysis	Analyse Apply Comment Distinguish Explain Suggest	These terms require students to use their knowledge and skills to break down ideas into simpler parts and to see how the parts relate.
AO3 —synthesis and evaluation	Compare Compare and contrast	These terms require students to rearrange component ideas into a

Assessment objective	Key command term	Depth
	Contrast Discuss Evaluate Examine Justify Recommend To what extent	new whole and make judgments based on evidence or a set of criteria.
AO4 —use and application of appropriate skills	Calculate Construct Derive Determine Draw Identify Label Measure Plot Show Show that Sketch Solve	These terms require students to demonstrate the selection and use of subject-specific skills and techniques.

Syllabus outline

Syllabus component	Teaching hours	
	SL	HL
Unit 1: Introduction to economics 1.1 What is economics? 1.2 How do economists approach the world?	10	10
Unit 2: Microeconomics 2.1 Demand (includes HL only sub-topics) 2.2 Supply (includes HL only sub-topics) 2.3 Competitive market equilibrium 2.4 Critique of the maximizing behaviour of consumers and producers 2.5 Elasticity of demand (includes HL only sub-topics) 2.6 Elasticity of supply (includes HL only sub-topics) 2.7 Role of government in microeconomics (includes HL only calculation) 2.8 Market failure—externalities and common pool or common access resources (includes HL only calculation) 2.9 Market failure—public goods 2.10 Market failure—asymmetric information (HL only) 2.11 Market failure—market power (HL only) 2.12 The market's inability to achieve equity (HL only)	35	70
Unit 3: Macroeconomics 3.1 Measuring economic activity and illustrating its variations 3.2 Variations in economic activity—aggregate demand and aggregate supply 3.3 Macroeconomic objectives (includes HL only calculation) 3.4 Economics of inequality and poverty (includes HL only calculation) 3.5 Demand management (demand side policies)—monetary policy (includes HL only sub-topics) 3.6 Demand management—fiscal policy (includes HL only sub-topics) 3.7 Supply-side policies	40	75
Unit 4: The global economy 4.1 Benefits of international trade (includes HL only subtopics and calculation) 4.2 Types of trade protection (includes HL only calculations) 4.3 Arguments for and against trade control/protection 4.4 Economic integration 4.5 Exchange rates (includes HL only sub-topic) 4.6 Balance of payments (includes HL only sub-topics) 4.7 Sustainable development (includes HL only sub-topic)	45	65

Syllabus component	Teaching hours	
	SL	HL
4.8 Measuring development		
4.9 Barriers to economic growth and/or economic development		
4.10 Economic growth and/or economic development strategies		
Internal assessment Portfolio of three commentaries	20	20
Total teaching hours	150	240

The recommended teaching time is 240 hours to complete HL courses and 150 hours to complete SL courses as stated in the publication *General regulations: Diploma Programme*.

Unit 1: Introduction to economics

Recommended teaching time: 10 hours

Conceptual understandings

- Economics is a social science characterized by **interdependence**, which focuses on how people interact with each other to improve their **economic well-being**, influenced and enabled by their values and their natural surroundings.
- The economic world is dynamic in nature and constantly subject to **change**.
- Economic theories are based on logic and empirical data, using models to represent and analyse this complex reality. Individual and collective motivations and behaviours are complex and diverse, and their understanding entails the interaction of a variety of disciplines such as philosophy, politics, history, and psychology.
- Economic decision-making impacts the relative **economic well-being** of individuals and societies.
- The central problems of economics are **scarcity** and **choice**. This forces societies to face trade-offs, opportunity costs and the challenge of **sustainability**.
- Debates exist in economics regarding the potential conflicts between economic growth and **equity** and between free markets and government **intervention**.
- Endless economic growth, based on the consumption of finite resources, cannot continue indefinitely. New economic models and social movements have challenged mainstream opinion about the purpose of growth and how the economy could be redesigned to support long-term prosperity.

Key concepts: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, intervention.

Note: All content is SL and HL unless otherwise stated. HL only topics, diagrams and calculations are in **bold**.

1.1 What is economics?	Depth of teaching	Diagrams
Economics as a social science <ul style="list-style-type: none"> • The social nature of economics • The basis of the study of economics: microeconomics and macroeconomics • Introduction to the nine central concepts: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, intervention 	AO2	
The problem of choice <ul style="list-style-type: none"> • Factors of production—land, labour, capital and entrepreneurship • Scarcity <ul style="list-style-type: none"> Unlimited human needs and wants to be met by limited resources Scarcity and sustainability 	AO2	

1.1 What is economics?	Depth of teaching	Diagrams
<ul style="list-style-type: none"> Opportunity cost <ul style="list-style-type: none"> The cost of choice Free goods The basic economic questions <ul style="list-style-type: none"> What/how much to produce, how to produce and for whom to produce? Means of answering the economic questions <ul style="list-style-type: none"> Market versus government intervention Economic systems: free market economy, planned economy and mixed economy 		
<p>The production possibilities curve model (PPC)</p> <ul style="list-style-type: none"> Assumptions of the model Increasing versus constant opportunity cost Features of the model: opportunity cost, scarcity, choice, unemployment of resources, efficiency, actual growth and growth in production possibilities 	AO2, AO4	<p>Diagram: PPC illustrating choice and opportunity cost, unemployment of resources, actual growth and growth in production possibilities</p> <p>Diagram: PPC showing increasing versus constant opportunity cost</p>
<p>Modelling the economy</p> <ul style="list-style-type: none"> The circular flow of income model Interdependence between economic decision-makers interacting and making choices in an economy: households, firms, the government, the banks and financial sector, and the foreign sector (foreign firms and households) Leakages and injections 	AO2, AO4	Diagram: circular flow of income model, with leakages and injections
1.2 How do economists approach the world?	Depth of teaching	Diagrams
<p>Economic methodology</p> <ul style="list-style-type: none"> The role of positive economics <ul style="list-style-type: none"> The use of logic The use of hypotheses, models, theories The <i>ceteris paribus</i> assumption Empirical evidence Refutation The role of normative economics <ul style="list-style-type: none"> Value judgments in policy making The meaning of equity and equality 	AO2	
<p>Economic thought</p> <ul style="list-style-type: none"> Origin of economic ideas in a historical context <ul style="list-style-type: none"> 18th century: Adam Smith and <i>laissez faire</i> 	AO2	

1.2 How do economists approach the world?	Depth of teaching	Diagrams
<p>19th century: classical microeconomics (utility); the concept of the margin; Classical macroeconomics (Say's law); Marxist critique of classical economic thought</p> <p>20th century: Keynesian revolution; rise of macroeconomic policy; monetarist/new classical counter revolution</p> <p>21st century: increasing dialogue with other disciplines such as psychology and the growing role of behavioural economics; increasing awareness of the interdependencies that exist between the economy, society and environment and the need to appreciate the compelling reasons for moving toward a circular economy</p>		

Theory of knowledge questions

- How realistic are economic models? How can we know what to include or exclude in a model?
- What assumptions do economists make when they apply economic theories to the real world?
- Many economists argue that economics as a social science is in its infancy, and that with time, as empirical testing methods and the quality of data improve, it will become more reliable in making accurate predictions. Do you agree with this statement?
- To what extent does the distinction between positive and normative statements exist in other academic disciplines?
- To what extent have individuals shifted the paradigms of economics?

Unit 2: Microeconomics

Recommended time for teaching and inquiry: SL—35 hours, HL—70 hours

Real-world issue 1

How do consumers and producers make choices in trying to meet their economic objectives?

Conceptual understandings

- Interaction between consumers and producers in a market is the main mechanism through which resources are directed to meet the needs and wants in an economy.
- Consumer and producer **choices** are the outcome of complex decision-making.
- Welfare is maximized if allocative **efficiency** is achieved.
- Constant **change** produces dynamic markets.

Key concepts: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, intervention.

Note: All content is SL and HL unless otherwise stated. HL only topics, diagrams and calculations are in **bold**.

2.1 Demand	Depth of teaching	Diagrams and calculations
The law of demand—relationship between price and quantity demanded <ul style="list-style-type: none"> • Assumptions underlying the law of demand (HL only) <ul style="list-style-type: none"> The income and substitution effects The law of diminishing marginal utility 	AO2	
Demand curve	AO4	Diagram: downward-sloping demand curve
Relationship between an individual consumer's demand and market demand	AO2	
Non-price determinants of demand <ul style="list-style-type: none"> • Income • Tastes and preferences • Future price expectations • Price of related goods (in the cases of substitutes and complements) • Number of consumers 	AO2	

2.1 Demand	Depth of teaching	Diagrams and calculations
Movements along the demand curve and shifts of the demand curve	AO2, AO4	Diagram: movements along the demand curve and shifts of the demand curve

2.2 Supply	Depth of teaching	Diagrams and calculations
<p>The law of supply—relationship between price and quantity supplied</p> <ul style="list-style-type: none"> Assumptions underlying the law of supply (HL only) <ul style="list-style-type: none"> The law of diminishing marginal returns Increasing marginal costs 	AO2	
Supply curve	AO4	Diagram: upward-sloping supply curve
Relationship between an individual producer's supply and market supply	AO2	
<p>Non-price determinants of supply</p> <ul style="list-style-type: none"> Changes in costs of factors of production (FOPs) Prices of related goods (in the cases of joint and competitive supply) Indirect taxes and subsidies Future price expectations Changes in technology Number of firms 	AO2	
Movements along and shifts of the supply curve	AO2, AO4	Diagram: movements along and shifts of the supply curve

2.3 Competitive market equilibrium	Depth of teaching	Diagrams and calculations
Demand and supply curves forming a market equilibrium	AO4	Diagram: market equilibrium
Shifting the demand and supply curves to produce a new market equilibrium, with reference to excess demand (shortage) and excess supply (surplus)	AO2, AO4	Diagram: showing changes in equilibrium/role of price mechanism
<p>Functions of the price mechanism</p> <ul style="list-style-type: none"> Resource allocation <ul style="list-style-type: none"> Signalling Incentive Rationing 	AO2	
Consumer and producer surplus	AO2, AO4	Diagram: showing consumer surplus and producer surplus (social/community surplus) —maximized at competitive market equilibrium
Social/community surplus	AO2, AO4	
<p>Allocative efficiency at the competitive market equilibrium:</p> <ul style="list-style-type: none"> social/community surplus maximized at equilibrium 	AO2, AO4	

2.3 Competitive market equilibrium	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> marginal benefit (MB) equals marginal cost (MC) 		Calculation (HL only): consumer surplus and producer surplus from a diagram
2.4 Critique of the maximizing behaviour of consumers and producers	Depth of teaching	Diagrams and calculations
Rational consumer choice (HL only) <ul style="list-style-type: none"> Assumptions—consumer rationality, utility maximization and perfect information Behavioural economics—limitations of the assumptions of rational consumer choice <ul style="list-style-type: none"> Biases—rule of thumb, anchoring and framing, availability Bounded rationality Bounded self-control Bounded selfishness Imperfect information 	A03	
Behavioural economics in action (HL only) <ul style="list-style-type: none"> Choice architecture—default, restricted, and mandated choices Nudge theory 	A03	
Business objectives (HL only) <ul style="list-style-type: none"> Profit maximization Alternative business objectives <ul style="list-style-type: none"> Corporate social responsibility Market share Satisficing Growth 	A03	
2.5 Elasticities of demand	Depth of teaching	Diagrams and calculations
Concept of elasticity	A01, A04	Diagram: relatively elastic and inelastic demand
Price elasticity of demand (PED) <ul style="list-style-type: none"> $PED = \frac{\text{percentage change in quantity demanded}}{\text{percentage change in price}}$ Degrees of PED—theoretical range of values for PED Changing PED along a straight line downward sloping demand curve (HL only) Determinants of PED—number and closeness of substitutes, degree of necessity, proportion of income spent on the good, time Relationship between PED and total revenue 	A02, A04	Diagram: constant PED—perfectly elastic, perfectly inelastic and unitary PED along a demand curve Diagram (HL only): PED along the straight line demand curve Diagram: showing changes in revenue as a result of price changes when demand is

2.5 Elasticities of demand	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> Importance of PED for firms and government decision-making 	AO3	price elastic and price inelastic
<ul style="list-style-type: none"> Reasons why the PED for primary commodities is generally lower than the PED for manufactured products (HL only) 	AO2	Calculation: PED, change in price, quantity demanded or total revenue from data provided
<p>Income elasticity of demand (YED)</p> <ul style="list-style-type: none"> $YED = \frac{\text{percentage change in quantity demanded}}{\text{percentage change in income}}$ Income elastic demand (services and luxury goods) and income inelastic demand (necessities) Significance of sign <ul style="list-style-type: none"> Positive YED (normal goods) and negative YED (inferior goods) Less than one (necessities) and greater than one (services and luxury goods) 	AO2, AO4	<p>Diagram: showing income elastic, income inelastic and inferior goods on an Engel curve</p> <p>Calculation: YED, change in income, quantity demanded from data provided</p>
<ul style="list-style-type: none"> Importance of YED (HL only): for firms in explaining changes in the sectoral structure of the economy. 	AO3	

2.6 Elasticity of supply	Depth of teaching	Diagrams and calculations
<p>Price elasticity of supply (PES)</p> <ul style="list-style-type: none"> $PES = \frac{\text{percentage change in quantity supplied}}{\text{percentage change in price}}$ Degrees of PES—theoretical range of values for PES Determinants of PES—time, mobility of factors of production, unused capacity, ability to store, rate at which costs increase 	AO2, AO4	<p>Diagram: relatively elastic and inelastic supply</p> <p>Diagram: constant PES — perfectly elastic, perfectly inelastic and unitary PES along a supply curve</p> <p>Calculation: PES, change in price or quantity supplied from data provided</p>
<ul style="list-style-type: none"> Reasons why the PES for primary commodities is generally lower than the PES for manufactured products (HL only) 	AO2	

Inquiry—possible areas to explore (not an exhaustive list)

- An investigation into the problems associated with volatile prices of commodity-dependent countries.
- An investigation into how choice architecture influences decision-making in different contexts (for example, its role in a supermarket, or how it may influence the rate of organ donation in different countries).
- A critical investigation into the CSR practices of different companies.
- An investigation into the extent to which firms actually use knowledge of elasticity to inform pricing decisions.

Theory of knowledge questions

- Is the assumption of rational consumer choice realistic?

- Can laws in economics, such as the law of demand and the law of supply, have the same status as laws in the natural sciences?
- Can the use of empirical evidence ever allow us to arrive at the truth about the real world?
- What practical problems does economics try to solve?

Real-world issue 2

When are markets unable to satisfy important economic objectives—and does government intervention help?

Conceptual understandings

- The market mechanism may result in socially undesirable outcomes that do not achieve **efficiency**, environmental **sustainability** and/or **equity**.
- Market failure, resulting in allocative inefficiency and welfare loss.
- Resource overuse, resulting in challenges to environmental **sustainability**.
- Inequity, resulting in inequalities.
- Governments have policy tools which can affect market outcomes, and government **intervention** is effective, to varying degrees, in different real-world markets.

Key concepts: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, intervention.

Note: All content is SL and HL unless otherwise stated. HL only topics, diagrams and calculations are in **bold**.

2.7 Role of government in microeconomics	Depth of teaching	Diagrams and calculations
Reasons for government intervention in markets <ul style="list-style-type: none"> • Influencing market outcomes in order to: <ul style="list-style-type: none"> earn government revenue support firms support households on low incomes influence level of production influence the level of consumption correct market failure promote equity. 	AO2	
Main forms of government intervention in markets <ul style="list-style-type: none"> • Price controls: price ceilings (maximum prices) and price floors (minimum prices) • Indirect taxes and subsidies • Direct provision of services • Command and control regulation and legislation • Consumer nudges (HL only) 	AO2, AO4	Diagram: showing the following measures and the possible effects on markets and stakeholders <ul style="list-style-type: none"> • Price ceiling (maximum price) • Price floor (minimum price) • Indirect tax • Subsidy

2.7 Role of government in microeconomics	Depth of teaching	Diagrams and calculations
		Calculation (HL only): the effects on markets and stakeholders of: <ul style="list-style-type: none"> • price ceilings (maximum prices) and price floors (minimum prices) • indirect taxes and subsidies.
Government intervention in markets—consequences for markets and stakeholders	AO3	

2.8 Market failure—externalities and common pool or common access resources	Depth of teaching	Diagrams and calculations
<p>Socially optimum output: marginal social benefit (MSB) equals marginal social cost (MSC).</p> <p>(MSB = MSC): allocative efficiency; social/community surplus maximized</p> <ul style="list-style-type: none"> • Positive externalities of production and consumption and welfare loss • Merit goods • Negative externalities of production and consumption and welfare loss • Demerit goods • Common pool resources <ul style="list-style-type: none"> Characteristics: Tragedy of commons, rivalrous but non-excludable Unsustainable production creating negative externalities 	AO2, AO4	<p>Diagram: allocative efficiency</p> <p>Diagram: showing market failure due to:</p> <ul style="list-style-type: none"> • negative externalities of production • negative externalities of consumption • positive externalities of production • positive externalities of consumption. <p>Calculation (HL only): welfare loss from a diagram</p>
<p>Government intervention in response to externalities and common pool resources including:</p> <ul style="list-style-type: none"> • Indirect (Pigouvian) taxes • Carbon taxes • Legislation and regulation • Education—awareness creation • Tradable permits • International agreements • Collective self-governance • Subsidies • Government provision 	AO2, AO4	<p>Diagram: showing government responses to externalities</p> <ul style="list-style-type: none"> • Indirect (Pigouvian) taxes • Carbon taxes showing effects on the market of a particular polluting industry • Subsidies • Legislation and regulation • Education
<p>Strengths and limitations of government policies to correct externalities and approaches to managing common pool resources including:</p> <ul style="list-style-type: none"> • challenges involved in measurement of externalities 	AO3	

2.8 Market failure—externalities and common pool or common access resources	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> degree of effectiveness consequences for stakeholders 		
Importance of international cooperation <ul style="list-style-type: none"> Global nature of sustainability issues Challenges faced in international cooperation Monitoring, enforcement 	AO3	

2.9 Market failure—public goods	Depth of teaching	Diagrams and calculations
Public goods <ul style="list-style-type: none"> Non-rivalrous, non-excludable Free rider problem 	AO2	
Government intervention in response to public goods <ul style="list-style-type: none"> Direct provision Contracting out to the private sector 	AO3	

2.10 Market failure—asymmetric information (HL only)	Depth of teaching	Diagrams and calculations
Asymmetric information <ul style="list-style-type: none"> Adverse selection Moral hazard 	AO2	
Responses to asymmetric information <ul style="list-style-type: none"> Government responses: legislation and regulation, provision of information Private responses: signalling and screening 	AO3	

2.11 Market failure—market power (HL only)	Depth of teaching	Diagrams and calculations
Perfect competition—many firms, free entry, homogeneous products	AO2	
Monopoly—single or dominant firm, high barriers to entry, no close substitutes	AO2	
Imperfect competition <ul style="list-style-type: none"> Oligopoly—few large firms, high barriers to entry, interdependence Monopolistic competition—many firms, free entry, product differentiation 	AO2	
Rational producer behaviour—profit maximization (HL only) <ul style="list-style-type: none"> Total revenue - Total costs (TR - TC) Marginal cost = Marginal revenue (MC=MR) Abnormal profit (AR > AC)* 	AO2, AO4	Calculation (HL only): profit, MC, MR, AC, AR from data

2.11 Market failure—market power (HL only)	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> • Normal profit ($AR = AC$)* • Losses ($AR < AC$)* <p>* AR = Average revenue, AC = Average cost</p>		
<p>Degrees of market power</p> <ul style="list-style-type: none"> • Meaning of market power • Perfect competition—no market power—firm as price taker <p>profit maximization:</p> <p>in the short run</p> <p>in the long run</p> <p>Meaning of allocative efficiency, necessary conditions</p> <p>Imperfect competition—varying degrees of market power—firm as price maker</p> 	AO3, AO4	<p>Diagram: perfectly competitive firm as price taker where,</p> <p>*$P = D = AR = MR$</p> <p>Diagram: perfectly competitive firm showing:</p> <ul style="list-style-type: none"> • abnormal profit • normal profit • losses <p>Diagram: equilibrium in perfectly competitive market with reference to allocative efficiency when $P = MC$ or $MB = MC$, maximum social/community surplus.</p> <p>*P = Price, D = Demand</p>
<p>Monopoly</p> <ul style="list-style-type: none"> • Profit maximization • Allocative inefficiency (market failure) • Welfare loss in a monopoly in comparison with perfect competition due to restricted output and higher price • Natural monopoly 	AO3, AO4	<p>Diagram: market power where $AR > MC$</p> <p>Diagram: monopolist showing:</p> <ul style="list-style-type: none"> • abnormal profit • normal profit • losses <p>Diagram: price/quantity comparison of a monopoly firm with a perfect competitive market. Also showing welfare loss under the monopoly.</p> <p>Diagram: natural monopoly</p>
<p>Oligopoly</p> <ul style="list-style-type: none"> • Collusive versus non-collusive • Interdependence, risk of price war, incentive to collude, incentive to cheat • Allocative inefficiency (market failure) simple game theory payoff matrix • Price and non-price competition • Measurement of market concentration – concentration ratios 	AO3, AO4	<p>Diagram: collusive oligopoly acting as a monopoly</p>

2.11 Market failure—market power (HL only)	Depth of teaching	Diagrams and calculations
Monopolistic competition <ul style="list-style-type: none"> • Profit maximization: in the short run in the long run • Less market power due to many substitutes—more elastic demand curve compared with monopoly • Allocative inefficiency (market failure) • Less inefficiency, more product variety 	AO3, AO4	Diagram: monopolistically competitive firm showing: <ul style="list-style-type: none"> • abnormal profit • normal profit • losses Diagram: monopolistic competition (with a more elastic demand curve compared to a monopoly)
Advantages of large firms having significant market power, including: <ul style="list-style-type: none"> • Economies of scale including natural monopolies • Abnormal profits may finance investments in research and development (R&D), hence innovation 	AO3	
Risks in markets dominated by one or a few very large firms <ul style="list-style-type: none"> • Risks in terms of output, price, consumer choice 	AO3	
Government intervention in response to abuse of significant market power <ul style="list-style-type: none"> • Legislation and regulation • Government ownership • Fines 	AO3	
2.12 The market's inability to achieve equity (HL only)	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> • Workings of free market economy may result in an unequal distribution of income and wealth 	AO2	Diagram: showing the circular flow model to illustrate why the free market results in inequalities

Inquiry—possible areas to explore (not an exhaustive list)

- The impact of a price floor or price ceiling in a chosen market.
- The impact of a government policy to correct market failure resulting from externalities.
- How different communities approach the managing of a common access resource.
- The impact of a price war or of price fixing on stakeholders of a selected industry.
- The risks of increasing monopoly power and abuse in a selected industry (for example, technology).
- Examples of government intervention in response to abuse of market power.
- How government intervention to correct a market failure (other than externalities) affects different stakeholders.
- How a country's economy could thrive without depending on the overuse of finite resources and still meet people's needs.

Theory of knowledge questions

- What knowledge criteria should government policy makers use to make choices between alternative policies?
- The idea of environmental sustainability suggests that people should avoid destroying resources today so as not to penalize future generations. Is it possible to have knowledge of the future?
- Microeconomic theory is based on the assumption of rational consumer choice and rational self-interest. Yet the principle of collective self-governance suggests that people also behave cooperatively. What assumptions do economists make about the roles of reason and emotion? Are these assumptions justified?
- How can we know when a problem is sufficiently large to justify government intervention?

Unit 3: Macroeconomics

Recommended time for teaching and inquiry: SL—40 hours, HL—75 hours

Real-world issue 1

Why does economic activity vary over time and why does this matter?

Conceptual understandings

- **Change** in the conditions of the demand and supply sides of the economy cause economic activity to vary over time.
- Fluctuations in economic activity impact the **economic well-being** of individuals and societies.
- Different schools of macroeconomic thought identify different causes and offer different solutions for macroeconomic problems.

Key concepts: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, intervention.

Note: All content is SL and HL unless otherwise stated. HL only topics, diagrams and calculations are in **bold**.

3.1 Measuring economic activity and illustrating its variations	Depth of teaching	Diagrams and calculations
National income accounting as a measure of economic activity	AO2, AO4	Diagram: circular flow of income model showing the interactions between decision makers, leakages and injections
Equivalence of the income, output and expenditure approaches to national income accounting, with reference to the circular flow model	AO2, AO4	
[Nominal] Gross domestic product (GDP) as a measure of national output	AO2, AO4	Calculation: [nominal] GDP from sets of national income data, using the expenditure approach
[Nominal] Gross national income (GNI) as a measure of national output	AO2, AO4	Calculation: [nominal] GNI from data
Real GDP and real GNI	AO2, AO4	Calculation: real GDP and real GNI, using a price deflator
Real GDP/GNI per person (per capita) Real GDP/GNI per person (per capita) at purchasing power parity (PPP)	AO2, AO4	Calculation: real GDP per capita and real GNI per capita
Business cycle: short-term fluctuations and long-term growth trend (potential output)	AO2, AO4	Diagram: business cycle showing short-term fluctuations and long-term

3.1 Measuring economic activity and illustrating its variations	Depth of teaching	Diagrams and calculations
		growth trend (potential output)
<p>Appropriateness of using GDP or GNI statistics to measure economic well-being—use of national income statistics for making:</p> <ul style="list-style-type: none"> • comparisons over time • comparisons between countries 	AO3	
<p>Alternative measures of well-being</p> <ul style="list-style-type: none"> • OECD Better Life Index • Happiness Index • Happy Planet Index 	AO2	

3.2 Variations in economic activity—aggregate demand and aggregate supply	Depth of teaching	Diagrams and calculations
<p>Aggregate demand (AD)</p> <ul style="list-style-type: none"> • Aggregate demand curve 	AO2, AO4	Diagram: AD curve
<p>Components of AD: consumption (C) + investment (I) + government spending (G) + net exports (total exports [X] - total imports [M])</p>	AO2	
<p>Determinants of AD components</p> <ul style="list-style-type: none"> • C: consumer confidence, interest rates, wealth, income taxes, level of household indebtedness, expectations of future price level • I: interest rates, business confidence, technology, business taxes, level of corporate indebtedness • G: political and economic priorities • X - M: income of trading partners, exchange rates, trade policies 	AO2	
<p>Shifts of the AD curve caused by changes in determinants</p>	AO2, AO4	Diagram: shifts of the AD curve
<p>Short-run aggregate supply (SRAS) curve and determinants of the SRAS curve</p> <ul style="list-style-type: none"> • costs of factors of production • indirect taxes 	AO2, AO4	Diagram: SRAS curve
<p>Shifts of the SRAS curve</p>	AO2, AO4	Diagram: shifts of the SRAS curve
<p>Alternative views of aggregate supply (AS)</p> <ul style="list-style-type: none"> • Monetarist/new classical view of the long-run aggregate supply (LRAS) curve • Keynesian view of the AS curve • Inflationary and deflationary/recessionary gaps 	AO2, AO4	Diagram: alternative views of the AS curve
<p>Shifts of the AS curve over the long-run (monetarist/new classical LRAS) or over the long term (Keynesian AS)</p>	AO2, AO4	Diagram: shifts of the LRAS or Keynesian AS

3.2 Variations in economic activity—aggregate demand and aggregate supply	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> Changes in the quantity and/or quality of factors of production Improvements in technology Increases in efficiency Changes in institutions 		
<ul style="list-style-type: none"> Macroeconomic equilibrium Short-run equilibrium Equilibrium in the monetarist/new classical model <ul style="list-style-type: none"> Determination of long-run equilibrium at full employment level of output (potential output) Automatic adjustment to full employment equilibrium Unemployment at full employment equilibrium is equal to the natural rate of unemployment Equilibrium in the Keynesian model <ul style="list-style-type: none"> Persistence of deflationary/recessionary gaps: equilibrium level of output might not equal the full employment level of output 	AO2, AO4	Diagram: macroeconomic equilibrium in both the short run and long run
Assumptions and implications of the monetarist/new classical and Keynesian models	AO3	

3.3 Macroeconomic objectives	Depth of teaching	Diagrams and calculations
<p>Economic growth</p> <ul style="list-style-type: none"> Short-term growth <ul style="list-style-type: none"> Actual growth in the PPC model Role of AD in the AD/AS model Long-term growth <ul style="list-style-type: none"> Shifts of the PPC (growth in production possibilities) Role of LRAS in the AD/AS model Measurement of economic growth 	AO2, AO4	<p>Diagram: PPC model showing actual growth and growth in production possibilities</p> <p>Diagram: AD increases showing increases in real output</p> <p>Diagram: LRAS increases showing increases in full employment output</p>
<ul style="list-style-type: none"> Consequences of economic growth, including: <ul style="list-style-type: none"> impact on living standards impact on the environment impact on income distribution 	AO3	Calculation: the rate of economic growth from a set of data
<p>Low unemployment</p> <ul style="list-style-type: none"> Measurement of unemployment and the unemployment rate Difficulties of measuring unemployment Causes of unemployment—cyclical (demand deficient), structural, seasonal, frictional 	AO2, AO4	<p>Calculation: the unemployment rate from a set of data</p> <p>Diagram: minimum wage to show unemployment</p> <p>Diagram: showing a fall in the demand for labour for a</p>

3.3 Macroeconomic objectives	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> Natural rate of unemployment—sum of the structural, seasonal, frictional unemployment Costs of unemployment—personal costs, social costs, economic costs 		<p>particular market or geographical area</p> <p>Diagram: deflationary gap to show cyclical unemployment</p>
<p>Low and stable rate of inflation</p> <ul style="list-style-type: none"> Measuring the inflation rate, using consumer price index (CPI) data The limitations of the CPI in measuring inflation Causes of inflation—demand-pull and cost-push Costs of a high inflation rate—uncertainty, redistributive effects, effects on saving, damage to export competitiveness, impact on economic growth, inefficient resource allocation Causes of deflation—changes in AD or SRAS Disinflation and deflation Costs of deflation—uncertainty, redistributive effects, deferred consumption, association with high levels of cyclical unemployment and bankruptcies, increase in the real value of debt, inefficient resource allocation, policy ineffectiveness 	AO2, AO4	<p>Calculation (HL only): a weighted price index, using a set of data provided</p> <p>Calculation: the inflation rate from a set of data using quantities purchased as weights in the CPI</p> <p>Diagram: demand-pull inflation</p> <p>Diagram: cost-push inflation</p> <p>Diagrams: deflation</p>
Relative costs of unemployment versus inflation	AO3	
<p>Sustainable level of government (national) debt (HL only)</p> <ul style="list-style-type: none"> Measurement of government (national) debt as a percentage of GDP Relationship between a budget deficit and government (national) debt Costs of a high government (national) debt—debt servicing costs, credit ratings, impacts on future taxation and government spending 	AO2	
<ul style="list-style-type: none"> Potential conflict between macroeconomic objectives <ul style="list-style-type: none"> Low unemployment and low inflation <p>Trade-off between unemployment and inflation (HL only)</p> <p>Short-run and long-run Phillips curve</p>	AO3	
	AO3, AO4	<p>Diagram (HL only): AD/AS curves</p> <p>Diagram (HL only): Phillips curve showing the short-run and long-run relationship between inflation and unemployment</p>
<ul style="list-style-type: none"> High economic growth and low inflation High economic growth and environmental sustainability High economic growth and equity in income distribution 	AO3	

3.4 Economics of inequality and poverty	Depth of teaching	Diagrams, calculations and construction
Relationship between equality and equity	AO2	
The meaning of economic inequality <ul style="list-style-type: none"> • Unequal distribution of income • Unequal distribution of wealth 	AO2	
Measuring economic inequality <ul style="list-style-type: none"> • Lorenz curve and Gini coefficient (index) 	AO2, AO4	Diagram: Lorenz curve showing the distribution of income and possible changes in the distribution of income Construction (HL only): a Lorenz curve from income quintile data
Meaning of poverty <ul style="list-style-type: none"> • Difference between absolute and relative poverty 	AO2	
Measuring poverty <ul style="list-style-type: none"> • Single indicators including: <ul style="list-style-type: none"> international poverty lines minimum income standards • Composite indicators including the Multidimensional Poverty Index (MPI) 	AO2	
Difficulties in measuring poverty	AO2	
Causes of economic inequality and poverty, including: <ul style="list-style-type: none"> • inequality of opportunity • different levels of resource ownership • different levels of human capital • discrimination (gender, race and others) • unequal status and power • government tax and benefits policies • globalisation and technological change • market-based supply side policies 	AO2	
The impact of income and wealth inequality on: <ul style="list-style-type: none"> • economic growth • standards of living • social stability 	AO3	
The role of taxation in reducing poverty, income and wealth inequalities <ul style="list-style-type: none"> • Progressive, regressive and proportional taxes Average and marginal tax rates • Direct taxes <ul style="list-style-type: none"> Personal income Corporate income Wealth 	AO3, AO4	Calculation (HL only): given the indirect tax rate, the amount of indirect tax paid from a given level/ amount of expenditure Calculation (HL only): total tax and average tax rates from a set of data

3.4 Economics of inequality and poverty	Depth of teaching	Diagrams, calculations and construction
<ul style="list-style-type: none"> Indirect taxes 		
<p>Further policies to reduce poverty, income and wealth inequality, including:</p> <ul style="list-style-type: none"> policies to reduce inequalities of opportunities/ investment in human capital transfer payments targeted spending on goods and services universal basic income policies to reduce discrimination minimum wages 	AO3	

Inquiry—possible areas to explore (not an exhaustive list)

- How the government of a chosen country has responded to business cycle fluctuations.
- The costs of unemployment or inflation on different stakeholders in a chosen country.
- The successes/failures in meeting government objectives, based on data collected for a variety of countries over a given period of time.
- The successes/failures of measures adopted to reduce income and/or wealth inequality, for a chosen country.
- How key stakeholders (such as businesses and governments) can continue to meet people's needs with limited resources.
- The cause of trade-offs between economic growth and sustainable development and how these might be addressed.
- What sustainable economic growth might look like and how it might be achieved.

Theory of knowledge questions

- To what extent do political beliefs and ideologies influence a person's preference for one school of macroeconomic thought over another?
- It is often the case that two or more economists, observing an identical set of macroeconomic data (national income accounts, inflation, unemployment), arrive at very different explanations of events. How can this be accounted for? Could this occur in a natural science?
- There are often conflicts between important macroeconomic objectives. What kind of knowledge criteria should policy makers use to make decisions in favour of pursuing one objective over another?
- Using the concepts of natural rate of unemployment and full employment output, how may language affect perceptions about economic events or situations?

Real-world issue 2

How do governments manage their economy and how effective are their policies?

Conceptual understandings
<ul style="list-style-type: none"> Government intervention attempts to achieve macroeconomic objectives through a choice of policies.

Conceptual understandings

- Political, economic, social and environmental factors are **interdependent** and will influence the effectiveness of government policies.

Key concepts: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, intervention.

Note: All content is SL and HL unless otherwise stated. HL only topics, diagrams and calculations are in **bold**.

3.5 Demand management (demand-side policies)—monetary policy	Depth of teaching	Diagrams and calculations
Monetary policy <ul style="list-style-type: none"> Control of money supply and interest rates by the central bank 	AO1	
Goals of monetary policy <ul style="list-style-type: none"> Low and stable rate of inflation Inflation targeting Low unemployment Reduce business cycle fluctuations Promote a stable economic environment for long-term growth External balance 	AO2	
The process of money creation by commercial banks (HL only)	AO2	
Tools of monetary policy (HL only) <ul style="list-style-type: none"> Open market operations Minimum reserve requirements Changes in the central bank minimum lending rate (base rate/discount rate/refinancing rate changes) Quantitative easing 	AO2	
Demand and supply of money—determination of equilibrium interest rates (HL only)	AO2, AO4	Diagram (HL only): showing the determination of equilibrium interest rates
Real versus nominal interest rates	AO2	Calculation: real interest rates from given data
Expansionary and contractionary monetary policies to close deflationary/recessionary and inflationary gaps	AO3, AO4	Diagram: AD/AS curves showing expansionary and contractionary monetary policy
Effectiveness of monetary policy <ul style="list-style-type: none"> Constraints on monetary policy, including: <ul style="list-style-type: none"> limited scope of reducing interest rates, when close to zero low consumer and business confidence Strengths of monetary policy, including: 	AO3	

3.5 Demand management (demand-side policies)— monetary policy	Depth of teaching	Diagrams and calculations
<p>incremental, flexible and easily reversible</p> <p>short time lags</p> <ul style="list-style-type: none"> Strengths and limitations in promoting growth, low unemployment, and low and stable rate of inflation 		

3.6 Demand management—fiscal policy	Depth of teaching	Diagrams and calculations
<p>Fiscal policy</p> <ul style="list-style-type: none"> Sources of revenue—direct and indirect taxation, sale of goods and services from state-owned enterprises, sale of government assets Expenditures—current expenditures, capital expenditures, transfer payments 	AO2	
<p>Goals of fiscal policy</p> <ul style="list-style-type: none"> Low and stable inflation Low unemployment Promote a stable economic environment for long-term growth Reduce business cycle fluctuations Equitable distribution of income External balance 	AO2	
<p>Expansionary and contractionary fiscal policies in order to close deflationary/recessionary and inflationary gaps</p>	AO3, AO4	Diagram: AD/AS curves showing expansionary and contractionary fiscal policy for both Keynesian and monetarist/new classical schools of thought
<p>Keynesian multiplier (HL only)</p> <ul style="list-style-type: none"> $\frac{1}{1 - MPC}$ or $\frac{1}{MPS + MPT + MPM}$ <p>MPC—marginal propensity to consume MPS—marginal propensity to save MPT—marginal propensity to tax MPM—marginal propensity to import</p>	AO2, AO4	<p>Calculation (HL only): Keynesian multiplier</p> <p>Calculation (HL only): the effect on GDP of a change in an injection in investment, government spending or exports, using the Keynesian multiplier</p>
<p>Effectiveness of fiscal policy</p> <ul style="list-style-type: none"> Constraints on fiscal policy, including: <ul style="list-style-type: none"> political pressure time lags sustainable debt <p>crowding out (HL only)</p>	AO3	
<ul style="list-style-type: none"> Strengths of fiscal policy, including: <ul style="list-style-type: none"> targeting of specific economic sectors 	AO4	<p>Diagram (HL only): showing the crowding-out effect</p>
	AO3	

3.6 Demand management—fiscal policy	Depth of teaching	Diagrams and calculations
<p>government spending effective in deep recession</p> <ul style="list-style-type: none"> • Automatic stabilizers: progressive taxes, unemployment benefits (HL only) • Strengths and limitations in promoting growth, low unemployment, and low and stable rate of inflation 		
3.7 Supply-side policies	Depth of teaching	Diagrams and calculations
<p>Goals of supply-side policies</p> <ul style="list-style-type: none"> • Long-term growth by increasing the economy's productive capacity • Improving competition and efficiency • Reducing labour costs and unemployment through labour market flexibility • Reducing inflation to improve international competitiveness • Increasing firms' incentives to invest in innovation by reducing costs 	AO2	
<p>Market-based policies, including:</p> <ul style="list-style-type: none"> • policies to encourage competition, such as: <ul style="list-style-type: none"> deregulation privatization trade liberalization anti-monopoly regulation • labour market policies, such as: <ul style="list-style-type: none"> reducing the power of labour unions reducing unemployment benefits abolishing minimum wages • incentive-related policies, such as: <ul style="list-style-type: none"> personal income tax cuts cuts in business tax and capital gains tax 	AO2, AO4	<p>Diagram: AD/AS model and LRAS curve to show the effect of supply-side policies</p> <p>Diagram: showing minimum wage</p>
<p>Interventionist policies, including:</p> <ul style="list-style-type: none"> • education, training • improving quality, quantity and access to health care • research and development • provision of infrastructure • industrial policies 	AO2	
Demand-side effects of supply-side policies	AO2	
Supply-side effects of fiscal policies	AO2	
<p>Effectiveness of supply-side policies</p> <ul style="list-style-type: none"> • Constraints on supply-side policies 	AO3	

3.7 Supply-side policies	Depth of teaching	Diagrams and calculations
<p>Market based—equity issues, time lags, vested interests, environmental impact</p> <p>Interventionist—costs, time lags</p> <ul style="list-style-type: none"> Strengths of supply-side policies <ul style="list-style-type: none"> Market based—improved resource allocation, no burden on government budget Interventionist—direct support of sectors important for growth Strengths and limitations in promoting growth, low unemployment, and low and stable rate of inflation 		

Inquiry—possible areas to explore (not an exhaustive list)

- The successes and constraints of fiscal policy in achieving low unemployment as a macroeconomic objective, for a chosen country.
- The economic and social impacts on different stakeholders of monetary policy, for a chosen country.

Theory of knowledge questions

- Can political beliefs and ideologies affect a person's preference for one particular policy over another?
- When evaluating economic policies, how important are cultural differences?
- How much statistical data should economists use in determining the reliability of any economic policy result?
- Economists and those who use economic theory may disagree with each other about the outcome of economic policies. On what basis might we make judgments about their relative conclusions?

Unit 4: The global economy

Recommended time for teaching and inquiry: SL—45 hours, HL—65 hours

Real-world issue 1

Who are the winners and losers of the integration of the world's economies?

Conceptual understandings

- The increased **interdependence** of economies has benefits and costs.
- Increased economic integration may result in **efficiency**, welfare gains and improvements in **economic well-being** but the benefits may not result in **equity**.

Key concepts: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, intervention.

Note: All content is SL and HL unless otherwise stated. HL only topics, diagrams and calculations are in **bold**.

4.1 Benefits of international trade	Depth of teaching	Diagrams and calculations
Benefits of international trade, including: <ul style="list-style-type: none"> • increased competition • lower prices • greater choice • acquisition of resources • more foreign exchange earnings • access to larger markets • economies of scale • more efficient resource allocation • more efficient production 	AO2, AO4	Diagram: free trade illustrating exports when world price is above domestic price Diagram: free trade illustrating imports when world price is below domestic price Calculation (HL only): from a diagram, the quantity of exports, quantity of imports, import expenditure, export revenue
Absolute and comparative advantage (HL only) <ul style="list-style-type: none"> • Gains from trade • Sources of comparative advantage • Opportunity costs 	AO2, AO4	Diagram (HL only): linear PPC showing differing opportunity costs and the potential gains from specialization and trade as a result of comparative advantage Calculation (HL only): opportunity costs from a set of data in order to

4.1 Benefits of international trade	Depth of teaching	Diagrams and calculations
		identify comparative advantage
Limitations of the theory of comparative advantage (HL only)	AO3	

4.2 Types of trade protection	Depth of teaching	Diagrams and calculations
Tariffs <ul style="list-style-type: none"> Effects on markets and stakeholders 	AO3, AO4	Diagram: showing the effect of a tariff on price, production, consumption, expenditures, revenues, welfare
	AO4 (HL only)	Calculation (HL only): from a diagram, the effects on stakeholders of tariffs
Quota <ul style="list-style-type: none"> Effects on markets and stakeholders 	AO3, AO4	Diagram: showing the effect of a quota on price, production, consumption, expenditures, revenues, welfare
	AO4 (HL only)	Calculation (HL only): from a diagram, the effects on stakeholders of quotas
Subsidy/export subsidy <ul style="list-style-type: none"> Effects on markets and stakeholders 	AO3, AO4	Diagram: showing the effect of a subsidy on price, production, consumption, expenditures, revenues, welfare
	AO4 (HL only)	Calculation (HL only): from a diagram, the effects on stakeholders of subsidies
Administrative barriers <ul style="list-style-type: none"> Standards and regulations 	AO3	

4.3 Arguments for and against trade control/protection	Depth of teaching	Diagrams and calculations
Arguments for trade protection/advantages of trade protection, including: <ul style="list-style-type: none"> protection of infant (sunrise) industries national security health and safety environmental standards anti-dumping unfair competition 	AO2	

4.3 Arguments for and against trade control/protection	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> balance of payments correction government revenue protection of jobs Economically least developed country (ELDC) diversification 		
<p>Arguments against trade protection/disadvantages of trade protection, including:</p> <ul style="list-style-type: none"> misallocation of resources retaliation increased costs higher prices less choice domestic firms lack incentive to become more efficient reduced export competitiveness 	AO2	
Free trade versus trade protection	AO3	

4.4 Economic integration	Depth of teaching	Diagrams and calculations
<p>Preferential trade agreements</p> <ul style="list-style-type: none"> Bilateral Regional Multilateral (the World Trade Organization) 	AO1	
<p>Trading blocs</p> <ul style="list-style-type: none"> Free trade areas/agreements Customs unions Common markets 	AO2	
<p>Advantages and disadvantages of trading blocs</p> <p>Advantages, including:</p> <ul style="list-style-type: none"> trade creation (HL only) greater access to markets offer potential for economies of scale with freedom of labour, there are greater employment opportunities membership in a trading bloc may allow for stronger bargaining power in multilateral negotiations greater political stability and cooperation <p>Disadvantages, including:</p> <ul style="list-style-type: none"> trade diversion (HL only) loss of sovereignty challenge to multilateral trading negotiations 	AO3	
Monetary union	AO2	

4.4 Economic integration	Depth of teaching	Diagrams and calculations
Advantages and disadvantages of monetary union (HL only)	AO3	
<p>The World Trade Organization (WTO)</p> <ul style="list-style-type: none"> Objectives and functions Factors affecting the influence of the WTO, including: <ul style="list-style-type: none"> difficulties of reaching agreement on services/primary products unequal bargaining power of members 	AO2	

4.5 Exchange rates	Depth of teaching	Diagrams and calculations
<p>Floating exchange rates</p> <ul style="list-style-type: none"> Determination <ul style="list-style-type: none"> Depreciation and appreciation of a currency 	AO2, AO4	<p>Diagram: showing the exchange rate determination and changes in equilibrium in a floating exchange rate system</p> <p>Calculation: using exchange rates, the price of a good in different currencies</p>
<p>Changes in demand and supply for a currency—factors including:</p> <ul style="list-style-type: none"> foreign demand for exports domestic demand for imports inward/outward foreign direct investment inward/outward portfolio investment remittances speculation relative inflation rates relative interest rates relative growth rates central bank intervention 	AO2, AO4	<p>Calculation: changes in the value of a currency from a set of data</p>
<p>Consequences of changes in the exchange rate on economic indicators, such as:</p> <ul style="list-style-type: none"> the inflation rate economic growth unemployment the current account balance living standards 	AO3, AO4	<p>Diagram: AD/AS curves to show potential consequences of changes in the exchange rate on the economy</p>
<p>Fixed exchange rate</p> <ul style="list-style-type: none"> Devaluation and revaluation of a currency How fixed exchange rates are maintained 	AO2, AO4	<p>Diagram: showing how a fixed exchange rate is maintained</p>
<p>Managed exchange rates</p> <ul style="list-style-type: none"> Overvalued currencies 	AO2, AO4	<p>Diagram: showing the exchange rate determination</p>

4.5 Exchange rates	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> Undervalued currencies 		and changes in equilibrium in a managed exchange rate system
Fixed versus floating exchange rate systems (HL only)	A03	

4.6 Balance of payments	Depth of teaching	Diagrams and calculations
Balance of payments <ul style="list-style-type: none"> Credit and debit items Surplus or deficit on an account 	AO1, AO4	Calculation: elements of the balance of payments from a set of data
Components of the balance of payments <ul style="list-style-type: none"> Current account <ul style="list-style-type: none"> Balance of trade in goods Balance of trade in services Income Current transfers Capital Account <ul style="list-style-type: none"> Capital transfers Transaction in non-produced, non-financial assets Financial account <ul style="list-style-type: none"> Foreign direct investment (FDI) Portfolio investment Reserve assets Official borrowing 	AO2	
Interdependence between the accounts <ul style="list-style-type: none"> Zero balance in the balance of payments Credits matched by debits Deficits matched by surpluses 	AO2	
Relationship between the current account and the exchange rate (HL only)	AO2, AO4	Diagram (HL only): on exchange rate showing the relationship between the current account balance and the exchange rate
Relationship between the financial account and the exchange rate (HL only)	AO2	
Implications of a persistent current account deficit in terms of: (HL only) <ul style="list-style-type: none"> exchange rates interest rates foreign ownership of domestic assets debt credit ratings 	A03	

4.6 Balance of payments	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> • demand management • economic growth 		
Methods to correct a persistent current account deficit (HL only) <ul style="list-style-type: none"> • Expenditure switching • Expenditure reducing • Supply-side policies 	AO2	
Effectiveness of measures to correct a persistent current account deficit (HL only).	AO3	
The Marshall-Lerner condition and the J-curve effect (HL only)	AO2, AO4	Diagram (HL only): J- curve with reference to the Marshall Lerner condition
Implications of a persistent current account surplus in terms of (HL only) : <ul style="list-style-type: none"> • domestic consumption and investment • exchange rates • inflation • employment • export competitiveness 	AO3	

Inquiry—possible areas to explore (not an exhaustive list)

- The impacts of changes in the exchange rate on different stakeholders and the economy, for a chosen country.
- Why a government chooses to manage the exchange rate, for a chosen country.
- Methods a government uses to manage its exchange rate and why, for a chosen country.
- The patterns of current account deficits/current account surpluses for different countries.

Theory of knowledge questions

- Free trade is advocated on the grounds that it leads to greater efficiency. Yet it results in both winners and losers. Do economists have a moral responsibility toward the losers when they advocate free trade?
- To what extent would increased economic integration ever be considered undesirable?
- Is it ethically sound for economically developed countries to demand that less developed countries remove their trade barriers in the interests of free trade when they continue to provide income support to their farmers? Can one country know what is right for another to do?
- To what extent does possession of knowledge carry with it an ethical responsibility?

Real-world issue 2

Why is economic development uneven?

Conceptual understandings
<ul style="list-style-type: none"> • Perceptions of the meanings of development and equity change over time and vary across cultures.

Conceptual understandings

- Governments and other economic agents may intervene in an attempt to promote **economic well-being** and **equity** in societies.
- The pursuit of **sustainability** is subject to various constraints.
- Effective strategies should take account of the relevant social, economic, and political context.

Key concepts: scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence, intervention.

Note: All content is SL and HL unless otherwise stated. HL only topics, diagrams and calculations are in **bold**.

4.7 Sustainable development	Depth of teaching	Diagrams and calculations
The meaning of sustainable development	AO2	
Sustainable Development Goals	AO2	
Relationship between sustainability and poverty (HL only)	AO2	

4.8 Measuring development	Depth of teaching	Diagrams and calculations
The multidimensional nature of economic development	AO2	
Single indicators <ul style="list-style-type: none"> • GDP/GNI per person (per capita) at PPP • Health and education indicators • Economic/social inequality indicators • Energy indicators • Environmental indicators 	AO2	
Composite indicators <ul style="list-style-type: none"> • Human Development Index (HDI) • Gender Inequality Index (GII) • Inequality adjusted Human Development Index (IHDI) • Happy Planet Index 	AO2	
Strengths and limitations of approaches to measuring economic development	AO3	
Possible relationship between economic growth and economic development	AO3	

4.9 Barriers to economic growth and/or economic development	Depth of teaching	Diagrams and calculations
Poverty traps/poverty cycles	AO2, AO4	Diagram: a poverty cycle showing any linked combination of factors that perpetuate poverty
Economic barriers <ul style="list-style-type: none"> • Rising economic inequality 	AO2	

4.9 Barriers to economic growth and/or economic development	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> • Lack of access to infrastructure and appropriate technology • Low levels of human capital—lack of access to healthcare and education • Dependence on primary sector production • Lack of access to international markets • Informal economy • Capital flight • Indebtedness • Geography including landlocked countries • Tropical climates and endemic diseases 		
Political and social barriers <ul style="list-style-type: none"> • Weak institutional framework <ul style="list-style-type: none"> Legal system Ineffective taxation structures Banking system Property rights • Gender inequality • Lack of good governance/corruption • Unequal political power and status 	AO2	
Significance of different barriers to economic growth and/or economic development	AO3	

4.10 Economic growth and/or economic development strategies	Depth of teaching	Diagrams and calculations
Strategies to promote economic growth and/or economic development <ul style="list-style-type: none"> • Trade strategies <ul style="list-style-type: none"> Import substitution Export promotion Economic integration • Diversification • Social enterprise • Market-based policies <ul style="list-style-type: none"> Trade liberalization Privatization Deregulation • Interventionist policies <ul style="list-style-type: none"> Redistribution policies including tax policies, transfer payments and minimum wages • Provision of merit goods <ul style="list-style-type: none"> Education programs 	AO2, AO4	Diagrams: in this section students are expected to draw from the diagrams used in the other sections

4.10 Economic growth and/or economic development strategies	Depth of teaching	Diagrams and calculations
<ul style="list-style-type: none"> Health programs Infrastructure including energy, transport, telecommunications, clean water and sanitation Inward foreign direct investment Foreign aid <ul style="list-style-type: none"> Humanitarian aid/development aid Debt relief Official Development Assistance (ODA) Non-governmental organizations (NGOs) Multilateral development assistance <ul style="list-style-type: none"> The World Bank International Monetary Fund Institutional change <ul style="list-style-type: none"> Improved access to banking, including microfinance and mobile banking Increasing women's empowerment Reducing corruption Property rights Land rights 		
Strengths and limitations of strategies for promoting economic growth and economic development	AO3	
Strengths and limitations of government intervention versus market-oriented approaches to achieving economic growth and economic development	AO3	
Progress toward meeting selected Sustainable Development Goals in the context of two or more countries	AO3	

Inquiry—possible areas to explore (not an exhaustive list)

- The patterns of economic development for countries in a region, using selected data.
- The relationship between economic growth and development, for chosen countries.
- The impact of a poverty reduction strategy, for a chosen country.
- The impacts of FDI in a chosen country on economic growth and development.
- The impacts of a microfinance project/debt relief/health programme/education programme in a chosen country/region.

Theory of knowledge questions

- Economic development draws from a set of values set out by Denis Goulet in 1971 (life sustenance, self-esteem and freedom). Does this make the pursuit of economic development unscientific?
- What knowledge questions might be encountered in constructing a composite indicator to measure development?
- Are the values on which development is based universal or do they depend on culture? Are there some goals among the Sustainable Development Goals that may not be acceptable to some cultures?

- Do economically more developed nations have a moral obligation to assist economically less developed nations, such as through foreign aid or World Bank lending? What criteria should economists use to make such judgments?

Assessment in the Diploma Programme

General

Assessment is an integral part of teaching and learning. The most important aims of assessment in the Diploma Programme are that it should support curricular goals and encourage appropriate student learning. Both external and internal assessments are used in the Diploma Programme. IB examiners mark work produced for external assessment, while work produced for internal assessment is marked by teachers and externally moderated by the IB.

There are two types of assessment identified by the IB.

- Formative assessment informs both teaching and learning. It is concerned with providing accurate and helpful feedback to students and teachers on the kind of learning taking place and the nature of students' strengths and weaknesses in order to help develop students' understanding and capabilities. Formative assessment can also help to improve teaching quality, as it can provide information to monitor progress towards meeting the course aims and objectives.
- Summative assessment gives an overview of previous learning and is concerned with measuring student achievement at, or towards the end of the course of study.

A comprehensive assessment plan is viewed as being integral with teaching, learning and course organization. For further information, see the IB *Programme standards and practices* document.

The approach to assessment used by the IB is criterion-related, not norm-referenced. This approach to assessment judges students' work by their performance in relation to identified levels of attainment, and not in relation to the work of other students. For further information on assessment within the Diploma Programme please refer to the publication *Assessment: principles and practice—Quality assessments in a digital age*.

To support teachers in the planning, delivery and assessment of the Diploma Programme courses, a variety of resources can be found on the programme resource centre or purchased from the IB store (store.ibo.org). Additional publications such as specimen papers and markschemes, TSMs, subject reports and grade descriptors can also be found on the programme resource centre. Past examination papers as well as markschemes can be purchased from the IB store.

Methods of assessment

The IB uses several methods to assess work produced by students.

Assessment criteria

Assessment criteria are used when the assessment task is open-ended. Each criterion concentrates on a particular skill that students are expected to demonstrate. An assessment objective describes what students should be able to do, and assessment criteria describe how well they should be able to do it. Using assessment criteria allows discrimination between different answers and encourages a variety of responses. Each criterion comprises a set of hierarchically ordered level descriptors. Each level descriptor is worth one or more marks. Each criterion is applied independently using a best-fit model. The maximum marks for each criterion may differ according to the criterion's importance. The marks awarded for each criterion are added together to give the total mark for the piece of work.

Markbands

Markbands are a comprehensive statement of expected performance against which responses are judged. They represent a single holistic criterion divided into level descriptors. Each level descriptor corresponds to

a range of marks to differentiate student performance. A best-fit approach is used to ascertain which particular mark to use from the possible range for each level descriptor.

Analytic markschemes

Analytic markschemes are prepared for those examination questions that expect a particular kind of response and/or a given final answer from students. They give detailed instructions to examiners on how to break down the total mark for each question for different parts of the response.

Marking notes

For some assessment components marked using assessment criteria, marking notes are provided. Marking notes give guidance on how to apply assessment criteria to the particular requirements of a question.

Inclusive access arrangements

Inclusive access arrangements are available for candidates with access requirements. Standard assessment conditions may put candidates with assessment access requirements at a disadvantage by preventing them from demonstrating their attainment level. Inclusive access arrangements enable candidates to demonstrate their ability under assessment conditions that are as fair as possible.

The IB document *Access and inclusion policy* (updated 2018) provides details on all the inclusive access arrangements available to candidates. The IB document *Learning diversity in IB programmes: Removing barriers to learning* (updated 2019) outlines the position of the IB with regard to candidates with diverse learning needs in the IB programmes. For candidates affected by adverse circumstances, the IB documents *General regulations: Diploma Programme* (September 2016) and the *Diploma Programme Assessment procedures* (updated annually) provide details on access consideration.

Responsibilities of the school

The school is required to ensure that equal access arrangements and reasonable adjustments are provided to candidates with learning support requirements that are in line with the IB documents *Access and inclusion policy* and *Learning diversity and inclusion in the IB programmes*.

Assessment outline—SL

First assessment 2022

Assessment component	Weighting
External assessment (3 hours)	70%
Paper 1 (1 hour and 15 minutes) An extended response paper (25 marks) Assessment objectives: AO1, AO2, AO3, AO4 Syllabus content (excluding HL extension material) Students answer one question from a choice of three. (25 marks)	30%
Paper 2 (1 hour and 45 minutes) A data response paper (40 marks) Assessment objectives: AO1, AO2, AO3, AO4 Syllabus content (excluding HL extension material). Includes some quantitative questions. Students answer one question from a choice of two. (40 marks)	40%
Internal assessment (20 teaching hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Students produce a portfolio of three commentaries, based on different units of the syllabus (excluding the introductory unit) and on published extracts from the news media. Each of the three commentaries should use a different key concept as a lens through which to analyse the published extracts. Maximum 800 words for each commentary (45 marks)	30%

Assessment outline—HL

First assessment 2022

Assessment component	Weighting
External assessment (4 hours and 45 minutes)	80%
Paper 1 (1 hour and 15 minutes) An extended response paper (25 marks) Assessment objectives: AO1, AO2, AO3, AO4 Syllabus content including HL extension material. Students answer one question from a choice of three. (25 marks)	20%
Paper 2 (1 hour and 45 minutes) A data response paper (40 marks) Assessment objectives: AO1, AO2, AO3, AO4 Syllabus content including HL extension material. Includes some quantitative questions. Students answer one question from a choice of two. (40 marks)	30%
Paper 3 (1 hour and 45 minutes) A policy paper (60 marks) Assessment objectives: AO1, AO2, AO3, AO4 Syllabus content including HL extension material. Includes both quantitative and qualitative questions. Students answer two compulsory questions. (30 marks per question)	30%
Internal assessment (20 teaching hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Students produce a portfolio of three commentaries, based on different units of the syllabus (excluding the introductory unit) and on published extracts from the news media. Each of the three commentaries should use a different key concept as a lens through which to analyse the published extracts. Maximum 800 words for each commentary (45 marks)	20%

External assessment

Two different methods are used to assess students.

- Analytic markschemes
- Markbands

For all three examination papers, there are analytic markschemes and markbands. The markbands are related to the assessment objectives established for the economics course and the individuals and societies grade descriptors and are published in the guide. The analytic markschemes are specific to each examination and are published separately in a markscheme document.

Written papers

The external assessment in economics consists of two examination papers at SL and three examination papers at HL that are externally set and externally moderated. They are designed to allow students to demonstrate their competencies in relation to the economics assessment objectives and specific parts of the economics syllabus, namely the common topics and the HL extension material. All questions on the examination papers will be based on the topics in this guide.

The external components contribute 70% to the final assessment at SL, and 80% to the final assessment at HL.

In common with all examination papers, students at SL and HL are given five minutes of reading time before they begin answering the papers.

Command terms

Teachers and students must be familiar with the command terms used at each assessment objective level to understand the depth of treatment required in examination questions. Cognitive demands terms progress from AO1 to AO3, while AO4 terms are specific to particular skills.

Examination questions may use any command term from the assessment objective level specified in the “Syllabus” section or a less demanding command term from a lower level. For example, if the assessment objective level for a topic is AO2, an examination question could contain any of the command terms for AO2, such as “explain”, “distinguish” and so on. Alternatively, the examination question could contain a command term from AO1, such as “describe”. However, a more demanding command term, such as “evaluate”, from a higher level (AO3 in this case), cannot be used.

The command terms used in each question (or part thereof) indicate the depth required. The command terms are organized by assessment objective level in the “Assessment objectives” section earlier in the guide and defined in the “[Glossary of command terms](#)” in the appendix.

Use of diagrams

Students are expected, where appropriate, to include correctly labelled and clearly drawn diagrams. Sometimes individual questions specify that the use of diagrams is essential because more detailed information is required from the students in order to show specific knowledge and understanding.

Use of examples

Students are expected, where appropriate, to illustrate their answers with real-world examples in order to reach the highest markbands. Examples should be used to highlight economic concepts, theories and relationships in the real world. When examples are used, students should not just state the example (as this is too limited) but should also offer some explanation of the example in relation to the question asked.

Use of economic terms

Students are expected to demonstrate the ability to appropriately define, use and apply the economics terms included in the “[Syllabus](#)” section.

Use of calculators

Paper 1 (SL/HL)

Calculators are **not** permitted.

Paper 2 (SL/HL) and Paper 3 (HL only)

While all questions requiring a calculator can be answered fully using a four function (plus, minus, multiply, divide) calculator, graphic display calculators (GDCs) **are** allowed during the examination. The graphing functions on these calculators may assist students and it is therefore recommended that all students are familiar with the use of GDCs.

Teachers and schools **must** adhere to the regulations regarding the use of electronic calculators in examinations, and students must be made aware of these. This information can be found in “Annex 2: Calculators guidance” of the Diploma Programme *Assessment procedures*.

Links to the specific details in the syllabus

Examination questions will be drawn from the four units of the syllabus, namely:

- Unit 1: Introduction to Economics
- Unit 2: Microeconomics
- Unit 3: Macroeconomics
- Unit 4: The global economy.

External assessment details—SL

Paper 1

Duration: 1 hour 15 minutes

Weighting: 30%

The structure of this paper is the same as the HL paper 1 but the questions that require extended responses may be the same as, or different from, the HL paper 1 questions.

- Students answer one question from a choice of three.
- The questions are each subdivided into two parts, (a) and (b).

Students are expected to demonstrate the following assessment objectives.

Assessment objective	Part (a)	Part (b)
AO1—knowledge and understanding	√	√
AO2—application and analysis	√	√
AO3—synthesis and evaluation		√
AO4—use and application of appropriate skills	√	√
Marks (maximum per part)	10	15
Maximum for paper 1	25	

- Questions in this paper are drawn from the four units of the syllabus **excluding** the HL extension material and topics studied at HL only.
- The **command terms** used in each question indicate the depth required.
- Marks are allocated using a combination of an analytic markscheme and markbands.

Paper 2

Duration: 1 hour 45 minutes

Weighting: 40%

The structure of this paper is the same as HL paper 2.

The text/data used and questions may be the same at SL and at HL.

- Students answer one question from a choice of two.
- The questions are each subdivided into seven parts, (a), (b), (c), (d), (e), (f) and (g). Parts (a) and (b) both have subparts showing (i and ii)
- Students are expected to demonstrate the following assessment objectives.

Assessment objective	Part a (i, ii)	Part b (i, ii)	Part c	Part d	Part e	Part f	Part g
AO1— knowledge and understanding	√	√	√	√	√	√	√
AO2— application and analysis		√	√	√	√	√	√
AO3—synthesis and evaluation							√
AO4—use and application of appropriate skills		√	√	√	√	√	√
Marks (maximum per part/subpart)	4 (2 + 2)	5*	4	4	4	4	15
Maximum marks for paper 2	40						

- Questions in this paper are drawn from the four units of the syllabus **excluding** the HL extension material and topics studied at HL only.
- The command terms used in each question indicate the depth required.
- Marks are allocated using a combination of an analytic markscheme and markbands.
- Maximum marks are available per part and per subpart.

* Questions in (b) may be further subdivided into parts (i) and (ii) with 3 marks allocated in the first part and up to 2 marks in the other, or vice versa. The maximum for part (b) is 5 marks.

External assessment details—HL

Paper 1

Duration: 1 hour 15 minutes

Weighting: 20%

- The structure of this paper is the same as SL paper 1. However, the questions that require extended responses may be the same as, or different from, the SL paper. Questions in this paper are drawn from the four units of the syllabus **including** the HL extension material and topics studied at HL only.

Please refer to the section “[External assessment details—SL](#)”, for further details

Paper 2

Duration: 1 hour 45 minutes

Weighting: 30%

The structure of this paper is the same as SL paper 2. However, the data response questions may be the same as, or different from, the SL paper. Questions in this paper are drawn from the four units of the syllabus **including** the HL extension material and topics studied at HL only.

Please refer to the section “[External assessment details—SL](#)”, for further details.

Paper 3

Duration: 1 hour 45 minutes

Weighting: 30%

- Students answer two compulsory questions.
- The questions are subdivided into parts (a) and (b). Part (a) has subparts.

Students are expected to demonstrate the following assessment objectives.

Assessment objective	Part (a)	Part (b)
AO1—knowledge and understanding	√	√
AO2—application and analysis	√	√
AO3—synthesis and evaluation		√
AO4—use and application of appropriate skills	√	√
Marks (maximum)	20	10
Marks (maximum per question)	30	
Maximum marks for paper 3 (for two questions)	60	

- Questions in this paper are drawn from the four units of the syllabus **including** the HL extension material and topics studied at HL only.
- The command terms used indicate the depth of response required.
- Marks are allocated using a combination of an analytic markscheme and markbands.
- Many question parts require the use of a calculator. GDCs are allowed during the examination, and students should be familiar with their use. Full details are given in the section “[Use of calculators](#)”.
- An answer booklet will be provided, and additional answer sheets may be used if necessary.

External assessment markbands—SL and HL

Paper 1 (SL/HL)

Part (a) 10-mark question

Marks 0–10	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–2	<ul style="list-style-type: none"> The response indicates little understanding of the specific demands of the question. Economic theory is stated but it is not relevant. Economic terms are stated but they are not relevant.
3–4	<ul style="list-style-type: none"> The response indicates some understanding of the specific demands of the question. Relevant economic theory is described. Some relevant economic terms are included.
5–6	<ul style="list-style-type: none"> The response indicates understanding of the specific demands of the question, but these demands are only partially addressed. Relevant economic theory is partly explained. Some relevant economic terms are used appropriately. Where appropriate, relevant diagram(s) are included.
7–8	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed. Relevant economic theory is explained. Relevant economic terms are used mostly appropriately. Where appropriate, relevant diagram(s) are included and explained.
9–10	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed Relevant economic theory is fully explained. Relevant economic terms are used appropriately throughout the response. Where appropriate, relevant diagram(s) are included and fully explained

Part (b) 15-mark question

Marks 0–15	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	<ul style="list-style-type: none"> The response indicates little understanding of the specific demands of the question. Economic theory is stated but it is not relevant Economic terms are stated but they are not relevant. The response contains no evidence of synthesis or evaluation. A real-world example(s) is identified but it is irrelevant.
4–6	<ul style="list-style-type: none"> The response indicates some understanding of the specific demands of the question. Relevant economic theory is described.

Marks 0–15	Level descriptor
	<ul style="list-style-type: none"> Some relevant economic terms are included. The response contains evidence of superficial synthesis or evaluation. A relevant real-world example(s) is identified.
7–9	<ul style="list-style-type: none"> The response indicates understanding of the specific demands of the question, but these demands are only partially addressed. Relevant economic theory is partly explained. Some relevant economic terms are used appropriately. Where appropriate, relevant diagram(s) are included. The response contains evidence of appropriate synthesis or evaluation but lacks balance. A relevant real-world example(s) is identified and partly developed in the context of the question.
10–12	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed. Relevant economic theory is explained. Relevant economic terms are used mostly appropriately. Where appropriate, relevant diagram(s) are included and explained. The response contains evidence of appropriate synthesis or evaluation that is mostly balanced. A relevant real-world example(s) is identified and developed in the context of the question.
13–15	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed. Relevant economic theory is fully explained. Relevant economic terms are used appropriately throughout the response. Where appropriate, relevant diagram(s) are included and fully explained. The response contains evidence of effective and balanced synthesis or evaluation. A relevant real-world example(s) is identified and fully developed to support the argument.

Paper 2 (SL/HL)

For parts (a) to (f) a markscheme will be used.

Part (g) 15-mark question

Marks 0–15	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	<ul style="list-style-type: none"> The response indicates little understanding of the specific demands of the question. Economic theory is stated but it is not relevant. Economic terms are stated but they are not relevant. The response contains no evidence of synthesis or evaluation.

Marks 0–15	Level descriptor
	<ul style="list-style-type: none"> The response contains no use of text/data.
4–6	<ul style="list-style-type: none"> The response indicates some understanding of the specific demands of the question. Relevant economic theory is described. Some relevant economic terms are included. The response contains evidence of superficial synthesis or evaluation. The response contains limited use of text/data.
7–9	<ul style="list-style-type: none"> The response indicates understanding of the specific demands of the question, but these demands are only partially addressed. Relevant economic theory is partly explained. Some relevant economic terms are used appropriately. Where appropriate, relevant diagram(s) are included. The response contains evidence of appropriate synthesis or evaluation but lacks balance. The response includes some relevant information from the text/data.
10–12	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed. Relevant economic theory is explained. Relevant economic terms are used appropriately. Where appropriate, relevant diagram(s) are included and explained. The response contains evidence of appropriate synthesis or evaluation that is mostly balanced. The use of information from the text/data is generally appropriate, relevant, and applied correctly.
13–15	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed. Relevant economic theory is fully explained. Relevant economic terms are used appropriately throughout the response. Where appropriate, relevant diagram(s) are included and fully explained. The response contains evidence of effective and balanced synthesis or evaluation. The use of information from the text/data is appropriate, relevant, and is used to formulate a reasoned argument supported by analysis/evaluation.

Paper 3 (HL only)

For part (a) a markscheme will be used.

Part (b) 10-mark question

Recommend—present an advisable course of action with appropriate supporting evidence/reason in relation to a given situation, problem or issue.

Marks 0–10	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–2	<ul style="list-style-type: none"> The response identifies a policy.

Marks 0–10	Level descriptor
	<ul style="list-style-type: none"> The response uses no economic theory to support the recommendation. Economic terms are stated but are not relevant. The response contains no use of text/data to support the recommendation. The response contains no evidence of synthesis or evaluation.
3–4	<ul style="list-style-type: none"> The response identifies an appropriate policy. The response uses limited economic theory to support the recommendation in a superficial manner. Some relevant economic terms are included. The response contains no use of relevant text/data to support the recommendation. The response contains superficial evidence of synthesis or evaluation.
5–6	<ul style="list-style-type: none"> The response identifies and explains an appropriate policy. The response uses relevant economic theory to partially support the recommendation. Some relevant economic terms are used appropriately. The response includes some relevant information from the text/data to support the recommendation. The response contains evidence of appropriate synthesis or evaluation but lacks balance.
7–8	<ul style="list-style-type: none"> The response identifies and fully explains an appropriate policy. The response uses relevant economic theory to support the recommendation. Relevant economic terms are used mostly appropriately. The use of information from the text/data is generally appropriate, relevant and applied correctly to support the recommendation. The response contains evidence of appropriate synthesis or evaluation that is mostly balanced.
9–10	<ul style="list-style-type: none"> The response identifies and fully explains an appropriate policy. The response uses relevant economic theory effectively to support the recommendation. Relevant economic terms are used appropriately throughout the response. The use of information from the text/data is appropriate, relevant and supports the analysis/evaluation effectively. The response contains evidence of effective and balanced synthesis or evaluation.

Internal assessment

Purpose of internal assessment

Internal assessment is an integral part of the course and is compulsory for both SL and HL students. It enables students to demonstrate the application of their skills and knowledge, and to pursue their personal interests, without the time limitations and other constraints that are associated with written examinations. The internal assessment should, as far as possible, be woven into normal classroom teaching and not be a separate activity conducted after a course has been taught.

The internal assessment requirements at SL and at HL are the same for the economics course. Both SL and HL economics students produce a portfolio of three commentaries based on articles from published news media.

Guidance and authenticity

The portfolio submitted for internal assessment must be the student's own work. However, it is not the intention that students should decide on the appropriate articles and then be left to work on the internally assessed component without any further support from the teacher. The teacher should play an important role during both the planning stage and the period when the student is working on the internally assessed work. It is the responsibility of the teacher to ensure that students are familiar with:

- the requirements of the type of work to be internally assessed—the nature of the sources of the articles, and the formal requirements of the portfolio—and the IB's academic honesty policy
- the assessment criteria; students must understand that the work submitted for assessment must address these criteria effectively.

Teachers and students must discuss the internally assessed work. Students should be encouraged to initiate discussions with the teacher to obtain advice and information, and students must not be penalized for seeking guidance. As part of the learning process, teachers should read and give advice to students on one draft of the work. The teacher should provide oral or written advice on how the work could be improved but must not edit the draft. The next version handed to the teacher must be the final version for submission.

It is the responsibility of teachers to ensure that all students understand the basic meaning and significance of concepts that relate to academic honesty, especially authenticity and intellectual property. Teachers must ensure that all student work for assessment is prepared according to the requirements and must explain clearly to students that the internally assessed work must be entirely their own. Where collaboration between students is permitted, it must be clear to all students what the difference is between collaboration and collusion.

All work submitted to the IB for moderation or assessment must be authenticated by a teacher and must not include any known instances of suspected or confirmed malpractice. Each student must confirm that the work is his or her authentic work and constitutes the final version of that work. Once a student has officially submitted the final version of the work it cannot be retracted. The requirement to confirm the authenticity of work applies to the work of all students, not just the sample work that will be submitted to the IB for the purpose of moderation. For further details refer to the IB publication *Academic honesty in the IB educational context*, *The Diploma Programme: From principles into practice* and the relevant articles in *General regulations: Diploma Programme*.

Authenticity may be checked by discussion with the student on the content of the work and scrutiny of one or more of the following:

- the student's initial choice of articles

- the first draft of the written work
- the references cited
- the style of writing compared with work known to be that of the student
- the analysis of the work by a web-based plagiarism detection service (for example, turnitin.com.)

The same piece of work cannot be submitted to meet the requirements of both the internal assessment and the EE.

Time allocation

Internal assessment is an integral part of the economics course, contributing 30% to the final assessment in the SL course and 20% to the final assessment in the HL course. This weighting should be reflected in the time that is allocated to teaching the knowledge, skills and understanding required to undertake the work, as well as the total time allocated to carry out the work.

It is recommended that a total of approximately 20 hours should be allocated to the portfolio at both SL and HL. This should include:

- time for the teacher to explain to students the requirements of the internal assessment
- class time for students to work on the internal assessment component
- time for consultation between the teacher and each student
- time to review and monitor progress and to check authenticity.

Requirements and recommendations

It is important for the integrity of the moderation process that the internal assessment by the teacher is based on the same evidence as that available to the moderator. When there is more than one teacher teaching students in this component, internal standardization must take place.

Using assessment criteria for internal assessment

For internal assessment, a number of assessment criteria have been identified. Each assessment criterion has level descriptors describing specific achievement levels, together with an appropriate range of marks. The level descriptors concentrate on positive achievement although, for the lower levels, failure to achieve may be included in the description.

Teachers must judge the internally assessed work at SL and at HL against the criteria using the level descriptors.

- The same assessment criteria are provided for SL and HL.
- The aim is to find, for each criterion, the descriptor that conveys most accurately the level attained by the student, using the best-fit model. A best-fit approach means that compensation should be made when a piece of work matches different aspects of a criterion at different levels. The mark awarded should be one that most fairly reflects the balance of achievement against the criterion. It is not necessary for every single aspect of a level descriptor to be met for that mark to be awarded.
- When assessing a student's work, teachers should read the level descriptors for each criterion until they reach a descriptor that most appropriately describes the level of the work being assessed. If a piece of work seems to fall between two descriptors, both descriptors should be read again and the one that more appropriately describes the student's work should be chosen.
- Where there are two or more marks available within a level, teachers should award the upper marks if the student's work demonstrates the qualities described to a great extent; the work may be close to achieving marks in the level above. Teachers should award the lower marks if the student's work demonstrates the qualities described to a lesser extent; the work may be close to achieving marks in the level below.
- Only whole numbers should be recorded; partial marks (fractions and decimals) are not acceptable.

- Teachers should not think in terms of a pass or fail boundary but should concentrate on identifying the appropriate descriptor for each assessment criterion.
- The highest level descriptors do not imply faultless performance but should be achievable by a student. Teachers should not hesitate to use the extremes if they are appropriate descriptions of the work being assessed.
- A student who attains a high achievement level in relation to one criterion will not necessarily attain high achievement levels in relation to the other criteria. Similarly, a student who attains a low achievement level for one criterion will not necessarily attain low achievement levels for the other criteria. Teachers should not assume that the overall assessment of the students will produce any particular distribution of marks.
- **It is recommended that the assessment criteria be made available to students.**

Internal assessment details—SL and HL

Portfolio

Duration: 20 hours

Weighting: 30% (SL), 20% (HL)

Rationale

Internal assessment in economics enables students to demonstrate the application of their knowledge and understanding of economic theory in relation to real-world situations.

Requirements

Both SL and HL economics students produce a portfolio of **three** commentaries based on articles from published news media. Each article **must** be based on a different unit of the syllabus (excluding Unit 1: Introduction to economics): Unit 2: Microeconomics, Unit 3: Macroeconomics and Unit 4: The global economy.

Articles

The articles may be from a newspaper, a journal or the internet, but must not be from television or radio broadcasts. If a student includes a relatively lengthy article, which is discouraged, the student must highlight the section(s) of the article upon which the commentary is based. Articles used must have been published no earlier than one year before the writing of the commentary.

The article on which the commentary is based should, where possible, be in the same language as the commentary. If an extract in another language is used, the student must provide an accurate translation of the whole article. Students must also include the original article in their portfolio.

Individual work

Students must select their own articles to discuss. It may happen that more than one student bases his or her commentary on the same article, but the article must not be given to the class by the teacher, and the production of the commentary must be each student's individual work. A commentary must not be prepared collaboratively.

Key concepts

Each of the three commentaries **must** use a different key concept as a lens through which to analyse the published extracts. Students will risk losing 3 marks in criterion D if they use the same key concept in two commentaries and up to 6 marks if the same key concept is used in three commentaries. Please refer to the *Economics teacher support material* for further guidance.

Focus

Each commentary must:

- explain the links between the article, a key concept and economic theory taken from the unit of the syllabus on which the article is based
- demonstrate economic insights into the implications of the article (that is, it should provide evidence of the student's ability to discuss current events from the point of view of an economist).

On each commentary students must record:

- the title of the article
- the source of the article (including date of access to the site if from the internet)
- the date the article was published
- the date the commentary was written
- the word count of the commentary
- the unit of the syllabus to which the article relates
- the key concept being used

Each commentary in the portfolio is assessed individually against the internal assessment criteria. The teacher will initially assess each student's work. Please note that internal standardization must take place if more than one teacher is assessing the work. A sample of the work will then be moderated by the IB.

Please refer to Diploma Programme *Assessment procedures* for details on how to present the work for moderation.

Word limit

Students must produce a portfolio of three commentaries. Each commentary must not exceed 800 words.

Note: Moderators will not read beyond 800 words for each commentary.

The following are **not** included in the word count.

- Acknowledgments
- Contents page
- Diagrams
- Labels—of five words or fewer
- Headings on diagrams—of 10 words or fewer
- Tables of statistical data
- Equations, formulae and calculations
- Citations (which, if used, must be in the body of the commentary)
- References (which, if used, must be in the footnotes/endnotes)

Please note that footnotes/endnotes may be used for referencing purposes only. Definitions of economic terms and quotations, if used, must be in the body of the work and are included in the word count. Please note that a citation is a shorthand method of making a reference in the body of the commentary, which is then linked to the full reference in the footnotes/endnotes.

Rubric requirements

If students do not adhere to the following requirements, they can lose marks under criterion F: Rubric requirements.

1. Articles

Each article must be based on a different unit of the syllabus (excluding Unit 1: Introduction to economics).

2. Sources

Students must use a different source for each commentary.

3. Contemporary articles

Students need to look for articles relating to current events, and these must be published no earlier than one year before the writing of the commentary.

Internal assessment criteria—SL and HL

Overview

There are five internal assessment criteria for each commentary.

Criterion	Commentary section	Marks
Criterion A	Diagrams	3 marks
Criterion B	Terminology	2 marks
Criterion C	Application and analysis	3 marks
Criterion D	Key concept	3 marks
Criterion E	Evaluation	3 marks
	Total	14 marks

There is one internal assessment criterion for the whole portfolio.

Criterion F	Rubric requirements	3 marks
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Each commentary is assessed individually for the first five assessment criteria (criteria A–E) and then criterion F is applied to the whole portfolio.

The maximum for the portfolio is 45 marks: (14 marks x 3 commentaries) + 3 marks = 42 + 3 marks. The assessment criteria are related to the assessment objectives.

- Criterion A: AO2 and AO4
- Criterion B: AO1
- Criterion C: AO2
- Criterion D: AO2
- Criterion E: AO3
- Criterion F: AO4

Economics internal assessment portfolio (SL/HL)

Criterion A: Diagrams

This criterion assesses the extent to which the student is able to construct and explain diagrams.

Marks	Descriptor
0	The work does not reach a standard described by the descriptors below.
1	Relevant diagram(s) are included but not explained, or the explanations are incorrect.
2	Relevant, accurate and correctly labelled diagram(s) are included, with a limited explanation.
3	Relevant, accurate and correctly labelled diagram(s) are included, with a full explanation.

Criterion B: Terminology

This criterion assesses the extent to which the student uses appropriate economic terminology.

Marks	Descriptor
0	The work does not reach a standard described by the descriptors below.
1	Economic terminology relevant to the article is included in the commentary.
2	Economic terminology relevant to the article is used appropriately throughout the commentary.

Criterion C: Application and analysis

This criterion assesses the extent to which the student recognizes, understands, applies and analyses economic theory in the context of the article.

Marks	Descriptor
0	The work does not reach a standard described by the descriptors below.
1	Relevant economic theory is applied to the article with limited analysis.
2	Relevant economic theory is applied to the article throughout the commentary with appropriate economic analysis.
3	Relevant economic theory is applied to the article throughout the commentary with effective economic analysis.

Criterion D: Key concept

This criterion assesses the extent to which the student recognizes, understands and links a key concept to the article.

Marks	Descriptor
0	Either the work does not reach a standard described by the descriptors below or the key concept identified has already been used in another commentary.
1	A key concept is identified and there has been an attempt to link it to the article.
2	A key concept is identified and the link to the article is partially explained.
3	A key concept is identified and the link to the article is fully explained.

Criterion E: Evaluation

This criterion assesses the extent to which the student's judgments are supported by reasoned argument.

Marks	Descriptor
0	The work does not reach a standard described by the descriptors below.
1	Judgments are made that are supported by limited reasoning.
2	Judgments are made that are supported by appropriate reasoning.
3	Judgments are made that are supported by effective and balanced reasoning.

Criterion F: Rubric requirements

This criterion assesses the extent to which the student meets the three rubric requirements for the complete portfolio.

- Each article is based on a different unit of the syllabus.
- Each article is taken from a different and appropriate source.
- Each article was published no earlier than one year before the writing of the commentary.

Marks	Descriptor
0	The work does not reach a standard described by the descriptors below.
1	One rubric requirement is met.
2	Two rubric requirements are met.
3	Three rubric requirements are met.

Glossary of command terms

Command terms for economics

Students should be familiar with the following key terms and phrases used in examination questions, which are to be understood as described below. Although these terms will be used frequently in examination questions, other terms may be used to direct students to present an argument in a specific way.

Command term	Assessment objective level	Definition
Analyse	AO2	Break down in order to bring out the essential elements or structure.
Apply	AO2	Use an idea, equation, principle, theory or law in relation to a given problem or issue.
Calculate	AO4	Obtain a numerical answer showing the relevant stages in the working.
Comment	AO2	Give a judgment based on a given statement or result of a calculation.
Compare	AO3	Give an account of the similarities between two (or more) items or situations, referring to both (all) of them throughout.
Compare and contrast	AO3	Give an account of similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.
Construct	AO4	Display information in a diagrammatic or logical form.
Contrast	AO3	Give an account of the differences between two (or more) items or situations, referring to both (all) of them throughout.
Define	AO1	Give the precise meaning of a word, phrase, concept or physical quantity.
Derive	AO4	Manipulate a mathematical relationship to give a new equation or relationship.
Describe	AO1	Give a detailed account.
Determine	AO4	Obtain the only possible answer.
Discuss	AO3	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.
Distinguish	AO2	Make clear the differences between two or more concepts or items.
Draw	AO4	Represent by means of a labelled, accurate diagram or graph, using a pencil. A ruler (straight edge) should be used for straight lines. Diagrams should be drawn to scale. Graphs should have points correctly plotted (if appropriate) and joined in a straight line or smooth curve.
Evaluate	AO3	Make an appraisal by weighing up the strengths and limitations.

Command term	Assessment objective level	Definition
Examine	AO3	Consider an argument or concept in a way that uncovers the assumptions and interrelationships of the issue.
Explain	AO2	Give a detailed account including reasons or causes.
Identify	AO4	Provide an answer from a number of possibilities.
Justify	AO3	Give valid reasons or evidence to support an answer or conclusion.
Label	AO4	Add labels to a diagram.
List	AO1	Give a sequence of brief answers with no explanation.
Measure	AO4	Obtain a value for a quantity.
Outline	AO1	Give a brief account or summary.
Plot	AO4	Mark the position of points on a diagram.
Recommend	AO3	Present an advisable course of action with appropriate supporting evidence/reason in relation to a given situation, problem or issue.
Show	AO4	Give the steps in a calculation or derivation.
Show that	AO4	Obtain the required result (possibly using information given) without the formality of proof. "Show that" questions do not generally require the use of a calculator.
Sketch	AO4	Represent by means of a diagram or graph (labelled as appropriate). The sketch should give a general idea of the required shape or relationship and should include relevant features.
Solve	AO4	Obtain the answer(s) using algebraic and/or numerical and/or graphical methods.
State	AO1	Give a specific name, value or other brief answer without explanation or calculation.
Suggest	AO2	Propose a solution, hypothesis or other possible answer.
To what extent	AO3	Consider the merits or otherwise of an argument or concept. Opinions and conclusions should be presented clearly and supported with appropriate evidence and sound argument.

Glossary of subject-specific terms

Refer to the “Glossary” section in the *Economics teacher support material*.

Bibliography

This bibliography lists the principal works used to inform the curriculum review. It is not an exhaustive list and does not include all the literature available—judicious selection was made in order to better advise and guide teachers. This bibliography is not a list of recommended textbooks.

Acemoglu, D and Robinson, JA. 2012. *Why Nations Fail: The Origins of Power Prosperity, and Poverty*. London, UK. Profile Books Ltd.

Ariely, D. 2009. *Predictably Irrational: The Hidden Forces that Shape Our Decisions*. London: HarperCollins.

Baldissoni, R. 2013. "And the Real Butchers, Brewers and Bakers? Towards the Integration of Ethics and Economics". *Economic Thought*. Vol 2, number 1. Pp 54–62.

Banerjee, AV and Duflo, E. 2011. *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. London, UK. Penguin Books.

Barton, D. 2011. "Capitalism for the Long Term". *Harvard Business Review*. March 2011 issue. Pp 84–91.

Brooks, D. 2011. "Social animal: how the new sciences of human nature can help make sense of a life". *The New Yorker*. January 17, 2011 issue. Pp 26–32.

Cohen, S. 2011. *Sustainability Management: Lessons from and for New York City, America and the Planet*. New York, USA. Columbia University Press.

Colander, DC. 2013. *Economics, 9th Edition*. New York, USA. McGraw-Hill/Irwin.

Foot, P. 2001. *Natural Goodness*. New York, USA. Oxford University Press.

Haidt, J. 2006. *The Happiness Hypothesis: Putting Ancient Wisdom to the Test of Modern Science*. London, UK. William Heinemann.

Harrison, K. 2013. "Ontological Commitments of Ethics and Economics". *Economic Thought*. Vol. 2 number 1. Pp 1–19.

Helbing, D and Kirman, A. 2013. "Rethinking economics using complexity theory". *Real-World Economics Review*. Issue 64. Pp 23–51.

Homer-Dixon, T. 2011. "Complexity Science". *Oxford Leadership Journal*. Vol 2, number 1. Pp 1–15.

Hursthouse, R. 1999. *On Virtue Ethics*. New York, USA. Oxford University Press.

Immordino-Yang, MH and Fischer, KW. 2010. "Neuroscience bases of learning". In *International Encyclopedia of Education (3rd edition)*. Oxford, UK. Elsevier. Pp 310–316.

Institute for New Economic Thinking. 2014. New Economic Teaching – Bridging Four Gaps. Accessed 1 January 2017. https://www.ineteconomics.org/uploads/papers/CARLIN_Wendy_New-Economic-Teaching.pdf

Judt, T. 2011. *Ill Fares the Land*. London, UK. Penguin Books.

Kahneman, D. 2012. *Thinking, Fast and Slow*. London, UK. Penguin Books.

Kay, J. 2011. *The Map is Not the Territory: An Essay on the State of Economics*. Accessed 1 January 2017. <https://www.johnkay.com/2011/10/04/the-map-is-not-the-territory-an-essay-on-the-state-of-economics/amer>.

MR and Porter, ME. 2011. "Creating Shared Value". *Harvard Business Review*. Vol 89, number 1. Pp 2–17.

Layard, R. 2011. *Happiness: Lessons from a New Science* (2nd edition). London, UK. Penguin Books.

Lietaer, B, Arnsperger C, Goerner, S and Brunnhuber, S. 2012. *Money and Sustainability: The Missing Link*. Axminster, UK. Triarchy Press.

Moyo, D. 2010. *Dead Aid*. London, UK. Penguin Books.

- Nussbaum, MC. 2011. *Creating Capabilities: The Human Development Approach*. Cambridge, USA. The Belknap Press of Harvard University Press.
- Raworth, K. 2017. *Doughnut Economics: Seven Ways to Think Like a 21st Century Economist*. White River Junction, USA. Chelsea Green Publishing.
- Reardon, J. 2012. "A radical reformation of economics education: educating real world economists". *Real-World Economics Review*. Issue 62. Pp 2–19.
- Reimers, FM, and Kanter, RM. 2012. *Teaching What Matters Most. A Synthesis of Ideas from the Harvard University Leadership Initiative Think Tank*. Cambridge, USA. The Harvard University Leadership Initiative.
- Robbins, L. 2007. *An Essay on the Nature and Significance of Economic Science*. Toronto, Canada. The Macmillan Company.
- Sachs, JD. 2012. *The Price of Civilization*. London, UK. Vintage Books.
- Smith, A. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Oxford, UK. Clarendon Press.
- Stiglitz, JE. 2010. *Freefall: America, Free Markets and the Sinking of the World Economy*. New York, USA. W. W. Norton & Company.
- Wilkinson, R and Pickett, K. 2009. *The Spirit Level*. London, UK. Penguin Books.