

# Draft Background Paper and Brief for the Review of Leaving Certificate Economics

For consultation

# Contents

1. Introduction	4
2. Background	5
Leaving Certificate Economics Syllabus (1969)	5
Developments at Junior Cycle	6
Senior Cycle developments	7
Key Skills	7
Leaving Certificate Economics Syllabus (2007)	8
Education for Sustainable Development	9
Agricultural economics	10
3. Assessment in Leaving Certificate Economics	11
4. International trends in upper secondary economics education	15
Scotland	15
Northern Ireland	17
Australia (Queensland)	19
Australia (New South Wales)	22
New Zealand	25
5. Issues for Consideration	28
Scope of the subject	28
Economic crisis	29
The impact of globalisation	29
The inquiry approach to economics	29
Assessment of economics	32
Senior and junior cycle developments	33
6. Brief for the review of Leaving Certificate Economics	34
7. References	37

## Background Paper Leaving Certificate Economics

Appendix 1: Leaving Certificate Economics Syllabus	42
Appendix 2: Template for Senior Cycle Specifications	46

# 1. Introduction

In 2007, a newly developed syllabus for Leaving Certificate Economics was approved by the Minister for Education and Science. However, the period of its proposed introduction coincided with austerity and the financial crisis of recent years, resulting in its deferral. In addition, over that period, escalating economic instability in the domestic and global economy has had a significant impact on Ireland's economy with economists re-evaluating how the crisis was handled, how it could have been prevented, and the implications of this analysis for future courses of study in economics at all levels. As a result there was concern that the 2007 syllabus might become rapidly outdated and that there was a case for giving a course in Economics for Leaving Certificate students some further consideration.

Over the period in question, there have also been some changes in how curriculum specifications are developed and presented. There have also been the findings from two recent Chief Examiner's reports on Leaving Certificate Economics published in 2009 and 2013. These raise concerns about rote-learning of answers to some questions and evidence that while students were able to provide definitions of key aspects of economics they were less able to build on and apply these definitions to particular contexts (SEC., 2013, 2009). This has led to some concerns about how well the subject prepares students for future life, work and study.

The process of developing an updated and revised specification for Leaving Certificate Economics specification began in September 2014. This paper provides the background for the revision and updating of the 2007 syllabus.

The paper explores the current position of economics at senior cycle and looks closely at the current assessment of Leaving Certificate Economics. Curriculum and assessment developments in economics in other countries are also considered. Finally, it explores some of the issues for consideration and sets out a brief for a revised specification.

## 2. Background

The current syllabus in Leaving Certificate Economics was introduced in 1969 and was assessed for the first time in 1971. At more than 40 years old, it is one of the longest-standing syllabuses at senior cycle. Some minor revisions were made to the syllabus in the late 70's and the revised syllabus was examined in 1981. A significant revision of the syllabus was commenced by the National Council for Curriculum and Assessment (NCCA) in 2000, completed and issued to the Department of Education and Science in 2007. Given the significant changes in the Irish and global economy since 2008 it was since decided to keep the 2007 syllabus under review and update it at an appropriate time. This would ensure that it is reflective of the current economic situation while at the same time future-proofing it in anticipation of potential economic fluctuations to come.

### Leaving Certificate Economics Syllabus (1969)

The Leaving Certificate Economics syllabus is a common syllabus for Higher and Ordinary levels. The purpose of the current economics syllabus is to

- give students a general picture and an understanding of economic activities, patterns and principles
- develop in students the capacity to apply these principles and to help them transfer this knowledge to new situations, and to achieve critical thought
- develop in all our students an interest in everyday economics and to aid them in their education for citizenship
- provide a suitable basis for further study of economics. (DES, 1969).

At Higher level a more in-depth knowledge of economic concepts and principles is required with a greater ability to apply this knowledge to real life situations and a requirement to present evidence of critical thought than at Ordinary level. (SEC, 2013). The syllabus is presented as a list of content, a presentation that is different to more contemporary syllabuses. The format of syllabuses has changed over the years and recent syllabuses present the curriculum as a range of learning outcomes rather than a summary of topics. They also include assessment criteria.

The economics syllabus is divided into two sections: micro- and macroeconomics. Proportionately, the division between the sections is relatively even. Microeconomics studies the behaviour of individuals, households and firms in making decisions on the allocation of limited resources. It applies to markets

where goods or services are bought and sold, considering the interaction of supply and demand and its impact on determining prices. Microeconomics considers issues such as consumption, savings, efficiency, competition and the labour market. Macroeconomics studies economy-wide phenomena analysing the performance, structure, behaviour, and decision-making of an economy as a whole, rather than individual markets. This includes national, regional, and global economies and deals with large scale issues like growth, inflation, and unemployment.

## Developments at Junior Cycle

The Junior Certificate was introduced in 1989, which heralded in a new business studies syllabus to replace the subject of commerce at junior cycle. This syllabus was divided into four sections: The Business of Living – Personal Finance; Economic Awareness; Enterprise; and Modern Information Technology. The syllabus was broken down into the three areas of business studies – business (50%), accounting (40%) and economics (10%). This reflected to some extent the breakdown of the preceding commerce syllabus into two distinct sections, one dealing with book-keeping accounts and ancillary documentation and the other covering general business knowledge and office procedure.

As part of the curriculum development work within the framework of the new Junior Cycle, a new specification for Business Studies is currently being developed. The new specification will be available in schools from September 2015 for introduction in September 2016. A development group was convened in November 2013 to commence the work of the specification development. A key part of this process was the development of a Business Studies Background Paper and Brief in autumn 2013, which explored the experience of business studies since its introduction, looked at the purposes of business studies in the 21st century and detailed current developments in business studies curriculum and assessment in other countries, setting out a proposed brief for the development of the new specification.

In light of the financial crisis in 2008 there has been widespread recognition at home and internationally of the importance of financial and economic literacy for young people. In addition, in consideration of research highlighting the disproportionality between the three areas in the current business studies syllabus, and a review of international trends in business education, a key component of the group's brief is to consider whether the three current areas of business, economics and accounting at junior cycle will remain in place, and/or in the current proportions, especially in light of Ireland's changing economic circumstances and demands for greater emphasis on financial literacy, entrepreneurship and sustainability. (NCCA, 2013). A draft specification for Business Studies will be available for consultation in late 2014.

## Senior Cycle developments

The most recent changes to syllabuses in the area of business and economics at senior cycle have been to Leaving Certificate Accounting and Business. Accounting was revised and introduced in 1995 and examined for the first time in 1997. Leaving Certificate Business was revised, introduced in 1997 and examined for the first time in 1999. As mentioned previously, work had also commenced on re-drafting the Leaving Certificate Economics syllabus in 2000.

In 2002 the NCCA initiated a review of Senior Cycle education more generally. This review has been informed by extensive consultation, by working directly with teachers, students and management in schools, by research undertaken by the Economic and Social Research Institute (ESRI) on the experience of learners as they progress through their post-primary schooling, by international research and by other developments in senior cycle education. (NCCA, 2009). The vision of senior cycle education was re-evaluated as part of this review and is set out in *Towards Learning: An Overview of Senior Cycle Education* (2009). Senior cycle education sees the learner at the centre of the educational experience, enabling learners to be resourceful, to be confident, to participate actively in society, and to build an interest in and ability to learn throughout their future lives. (NCCA, 2009).

Developments in senior cycle have also resulted in a revision of how specifications are presented. In line with international practice, specifications are now presented in units of study which are presented as learning outcomes. Learning outcomes are statements that describe the understanding, skills and values students should be able to demonstrate after a period of learning. They place the student at the centre of the learning. In addition, all revised and new senior cycle syllabuses for subjects follow a common format (see Appendix 2) for consistency and accessibility.

### Key Skills

In line with international trends, and influenced by the Lisbon strategy and the OECD DeSeCo (Defining and Selecting Key Competencies) initiative, a framework of key skills for senior cycle was developed. These five key skills include information processing; communicating; being personally effective; critical and creative thinking; and, working with others. It is envisaged that these key skills will play an important role in all learners achieving their potential, both during their time in school and in the future. They also enable learners to participate fully in society, including family and community life and the world of work. (NCCA, 2009).

Economics can contribute to the development of each of these key skills through learning outcomes that reflect knowledge, skills, values and attitudes which it is expected learners will be able to

demonstrate as a result of the learning associated with the topic in the specification. Key skills such as information processing and critical and creative thinking can be developed by including learning outcomes that focus on the use of diverse sources of information, on understanding different economic theories and on evaluating the evidence that supports or contradicts these theories. Skills related to being personally effective and working with others can be encouraged through learning outcomes that are enquiry based and that promote active learning approaches. The skills of communicating can be developed through encouraging learners to present their work in a variety of ways. In addition to the key skills the new specification should seek to promote and develop an understanding of entrepreneurship as an integral part of economics education.

The development of clear, rich learning outcomes will help teachers to assess how students are learning on an ongoing basis and to provide clear and supportive feedback as to how they can further develop their skills and capacities.

## Leaving Certificate Economics Syllabus (2007)

The format of the 2007 economics syllabus differed significantly from its 1969 format, reflecting changes which emerged through the review of senior cycle education. It included a detailed introduction, aims and objectives as well as guidelines around the differentiation between Ordinary level and Higher level. The syllabus was divided into sixteen units which were equally apportioned to micro- and macroeconomic content.

- Unit 1: Key issues
- Unit 2: Economics as a way of thinking
- Unit 3: Demand and Supply
- Unit 4: Elasticities – analysing change
- Unit 5: The firm – production and costs
- Unit 6: The factor markets
- Unit 7: The competitive environment – perfect competition
- Unit 8: Market concentration and power – monopolistic/imperfect competition
- Unit 9: Market failure
- Unit 10: National income analysis



- Unit 11: The government budget
- Unit 12: Money and central banking
- Unit 13: International trade, the European Union and globalization
- Unit 14: Inflation
- Unit 15: Investment, employment and income distribution
- Unit 16: Development, economic growth and sustainable economic growth.

The sixteen units were sub-divided into smaller detailed content areas and learning outcomes. It included two initial units which acted as an introduction to the study of economics: Unit One *Key Issues* and, Unit Two *Economics as a Way of Thinking*.

At the time of the re-development of senior cycle education the vision for assessment was also reviewed, and this vision was incorporated into the proposed assessment of the syllabus. The vision for assessment reflects the conviction that equity and fairness in assessment are promoted by clear alignment between curricular aims and assessment approaches. (NCCA, 2009). The 2007 syllabus included a change to the methods of assessment at senior cycle and the proposed assessment components consisted of a case study and written examination, replacing the traditional 100% written examination. The case study was intended to account for 20% of the total mark awarded to a student. This change was in line with ongoing developments in assessment at senior cycle, where the emphasis on the demonstration of the five key skills was being promoted and integrated into syllabuses.

## Education for Sustainable Development

The recently launched *National Strategy on Education for Sustainable Development 2014 -2020* by the Department of Education and Skills, highlights the need to integrate Education for Sustainable Development (ESD) in the curriculum from pre-school up to senior cycle. The National Strategy aims to ensure that education contributes to sustainable development by equipping learners with the relevant knowledge (the 'what'), the key dispositions and skills (the 'how') and the values (the 'why') that will motivate and empower them throughout their lives to become informed active citizens who take action for a more sustainable future (DES, 2014, 3).

Sustainable development is defined as *development which meets the needs of the present without compromising the ability of future generations to meet their own needs*. Sustainable development is characterised as a continuous, guided process of economic, environmental and social change aimed at promoting wellbeing of citizens now and into the future. To realise development of this nature

requires creating a sustainable and resource-efficient economy founded on a fair and just society, which respects the ecological limits and carrying capacity of the natural environment (DECLG, 2012, 10).

While recognising the difficulty of integrating ESD at post-primary level due to the “silo-isation” of subjects, the strategy highlights that the senior cycle review and the focus on key skills at senior cycle provide opportunities for promoting ESD in various subject areas. Given that the question of sustainability has become an important economic issue, it is appropriate that the revised Economics syllabus includes an emphasis on Economics for Sustainable Development.

The review of the Economics syllabus, also offers possibilities for focusing on the social aspect of the subject area which is identified in the strategy. Examining both how economic activity is shaped by social processes and the social impact of economic activity and policy is of particular relevance in a post-recession context.

## Agricultural economics

As there is considerable overlap between Economics and the Leaving Certificate subject Agricultural Economics, consideration will need to be given to elements of Agricultural Economics that might contribute to this new specification. With the inclusion of elements of LC Agricultural Economics in both Economics and Agricultural Science (also currently under review) it is intended that LC Agricultural Economics will be discontinued – as had been planned when the revision to LC Agricultural Science re-commenced in 2004.

### 3. Assessment in Leaving Certificate Economics

While economics continues to be the least popular business subject at senior cycle, participation rates have remained relatively stable over the last decade at 8.5 - 9% of the Leaving Certificate cohort.

**Table 1: Number of students sitting business subjects for Leaving Certificate (LC) examination 2009-2013 (SEC Statistical Reports, 2009-2013)**

Year	Accounting	Business	Economics	Total LC candidates
2012/13	5,673	16,932	4,632	52,767
2011/12	5,605	17,249	4,625	52,589
2010/11	5,820	18,083	4,796	54,341
2009/10	6,443	18,790	4,857	54,481
2008/09	6,893	18,423	4,578	54,197

The Economics examination at both Ordinary level and Higher level consists of a terminal written examination of two and a half hours duration. The examination paper has a mark allocation of 400 marks in total and consists of two sections as follows:

Section A: 100 marks (25%) – This section consists of nine short response type questions. Candidates are required to attempt six of the nine questions. To obtain full marks candidates are required to attempt the last four questions with a mark allocation of 17 marks each and any two other questions from the remaining five questions with a mark allocation of 16 marks each. Questions range over the entire syllabus. The section is returned with the candidate's answer book on completion of the examination.

Section B: 300 marks (75%) – This section consists of eight questions and candidates are required to attempt any four of these. All questions require constructed responses and carry an equal weighting of 75 marks each.

All sections of the syllabus, including both macro- and microeconomics, are assessed at both levels. Any particular question may draw on two or more sections of the syllabus content. Information, statistics and relevant data on contemporary economic issues are also required.

*The subject Economics consists of a number of integrated core concepts and the assessment seeks to recognise the integrated nature of the course and the natural connections which exist between the different parts. For that reason, a question may draw on two or more sections of the syllabus content. Elements of both microeconomics and macroeconomics may appear in a question. This practice supports and promotes the teaching of economics as an integrated subject. (SEC, 2013).*

The Chief Examiner's Reports from 1999 to 2013 provide data on the popularity of each question in the examination. While these figures are based on a relatively small sample of papers, they are indicative of the choices made by students in the examinations and reveal that the choices do not always reflect the balance of content in the syllabus. In particular, the macroeconomics questions often feature as the less popular choices.

Analysis of examination papers for economics confirms that the even weighting between micro- and macroeconomics is mirrored in the questions asked in the Leaving Certificate examination. Higher level candidates continue to perform very well in the short response questions in Section A. In Section B, of the eight long questions available to candidates, the microeconomic questions continue to be the most popular questions. These trends are also replicated at Ordinary level where candidates continue to perform very well in the short response questions in Section A. In Section B the popularity of microeconomic long questions and macroeconomic questions is more mixed.

*While micro-economics questions are always the most popular questions at the Higher level, it can vary at Ordinary level. (SEC, 2013)*

The reasons for the unpopularity of the macroeconomics questions are not clear: Is it that students just don't like macroeconomics and choose other questions? Is it that students consider the questions as more difficult? Does it relate to lack of confidence surrounding the analysis of the current economic situation? Is it that questions relating to this area of the syllabus might not be as predictable as other questions?

**Table 2: Overview of question selection in the Leaving Certificate Economics examination (SEC, Chief Examiner's Reports, 2013, 2009, 2002, 1999)**

		2013	2009	2002	1999
<b>Higher level</b>	<b>Most popular</b>	Monopoly (1)	Imperfect competition (1)	Perfect competition (1)	Oligopoly (1)
	<b>Least popular</b>	Demand and supply (2)	Demand, supply and elasticity (2)	Elasticity (2)	Demand (2)
<b>Ordinary level</b>	<b>Most popular</b>	Labour and Karl Marx (8)	International trade and history of economic thought (8)	The economy (8)	Economic aims and policies (8)
	<b>Least popular</b>	International Trade and the Euro (7)	Government and the economy (7)	Credit creation and interest rates (7)	Exchange rates and foreign trade (7)
	<b>Most popular</b>	Emigration, unemployment and ageing population (1)	Perfect competition (1)	Factors of production, privatisation (1)	Money and banking, the euro (1)
	<b>Least popular</b>	Perfect competition (2)	International Trade (2)	Savings, money and interest rates (2)	Demand and elasticity (2)
		Circular flow of income, black economy, consumer expenditure (8)	Money and interest rates (8)	National income (8)	Costs of production, Luas (8)
		Savings, banking, euro (7)	National Income (7)	Fiscal policy and deregulation (7)	Underdeveloped countries (7)

An analysis of candidate performance undertaken by the State Examinations Commission (SEC) as part of the Chief Examiner's Report 2013 provides potential explanations. According to the report,

*In general, candidates at both levels are very well prepared for the micro-economic questions, especially questions on demand/supply and market structures. (SEC, 2013)*

This may indicate that exam preparation and predictability are factors in students choosing microeconomic questions. To perform well in the macroeconomic questions at Higher level, candidates need a good knowledge of contemporary economic issues in the Irish economy and an

ability to apply the relevant economic theories to particular issues. Students are provided with a broad question choice at Higher and Ordinary level. Of the eight long questions set in the examination, students must attempt four questions, representing 75% of their final mark. The long questions tend to be equally assigned to micro- and macroeconomic content. This has resulted in many students being able to avoid areas of the curriculum, which they consider more challenging. At Higher level

*A minority of candidates found the detail and specificity of some questions in the area of macroeconomics challenging and this may have restricted their choice, particularly in instances where candidates may have prepared a narrow number of specific topics. (SEC, 2013)*

Data related to student choice of examination questions provide some insights into their thinking about aspects of economics. These provide an important context for discussion of the direction that the revised specification for Leaving Certificate Economics should take.

## 4. International trends in upper secondary economics education

A review of economics education in a number of other countries (Scotland, Northern Ireland, Australia, and New Zealand) illustrates that international curricula approach economics from a micro- and macroeconomic perspective, generally rooting the economic analysis in the domestic economy and familiar economic situations.

The microeconomic focus is centred on aspects of the economic behaviour of consumers, business and governments and the functioning of markets. The macroeconomic focus tends to explore broader national issues such as unemployment, inflation and economic growth within the country's own context with reference to the international context. Most curricula focus on the application of core concepts to students' everyday lives and how economic concepts and principles and government economic policies impact on them. Regarding assessment, most jurisdictions analysed include a project, case study, research or practical assessment component to complement the final written examination.

The following examples offer some perspectives of economics curriculum structure from Scotland, Northern Ireland, Australia, and New Zealand, chosen because they are from English-speaking jurisdictions that present stand-alone senior cycle economics specifications. This approach is similar to how economics is provided for within the Irish education system. In comparison, in some jurisdictions (Finland, Singapore) economics is integrated into social studies (history, geography, citizenship) as a unit of a broader course of study. The following material provides some useful examples of approaches that help inform the revision of the Economics syllabus.

### Scotland

The vast majority of Scottish pupils take Scottish Qualifications Certificate qualifications provided by the Scottish Qualifications Authority (SQA). Generally, most pupils take National 4/5s and Highers. Senior cycle economics would equate to the Higher Economics course, which builds on the foundations and learning in the Economics National 5 course. The Higher Economics course reflects *Curriculum for Excellence* values, purposes and principles and aims to give students good opportunities to build further on the attributes and capabilities of four, foundational capacities: to be a successful learner, a confident individual, a responsible citizen and an effective contributor.

The Higher Economics course looks at the role of government, business and global trade. It aims to explore the economic environments in which they are set. The main purpose of the course is to highlight how important economic concepts, government policies and global trade are to our everyday lives. It builds on students' own experiences as consumers and helps them to interpret economic situations through the application of core concepts.

*Economics is about choice and its impact. It relates to every aspect of our lives, from the decisions we make as individuals or families to the structures created by governments and businesses. An economic way of thinking can help learners make better choices relating to their life and work. (Education Scotland, 2012)*

The Higher Economics course consists of three mandatory units:

- Economics of the Market: provides learners with a growing knowledge and understanding of how markets operate
- UK Economic Activity: allows learners to consider the impact of government action on economic issues and problems
- Global Economic Activity: provides learners with a growing knowledge and understanding of global economics and its social impact.

These units aim to provide students with the opportunity to develop a wide range of transferable skills which can be applied over a range of contexts.

To achieve within the Higher Economics course, students must pass all of the three required units and undertake a course assessment, which covers the added value of the programme. The unit assessment is undertaken internally against the requirements shown in the unit specification. They can be assessed on a unit-by-unit basis or by combined assessment.

The added value is assessed in the course assessment by a question paper and an assignment. The question paper requires demonstration of a breadth of knowledge, understanding and skills accumulated from across the course. The question paper accounts for 70 marks (70% of the total mark) and consists of two sections. Section one is assigned 25 marks and consists of a number of mandatory short-answer questions based on items of stimulus material. The questions draw from any aspect of the course and requires learners to demonstrate the application of skills, knowledge and understanding within the context of the stimulus material. Section two is assigned 45 marks and consists of three questions, each based on a unit from the course. Questions from each of the sections is sampled from the course coverage, ensuring there is no duplication of topics and that there is a balanced coverage across the course.



The purpose of the assignment is to address challenge and application by applying skills, knowledge and understanding from across the course. The assignment is seen as an opportunity for students to demonstrate their abilities and develop a deeper understanding of the topic they choose. The assignment accounts for 30 marks (30% of the total mark). The assignment requires learners to undertake the following tasks:

- collect information/evidence relating to the context of the assignment
- analyse and evaluate economic data/information to reach conclusions
- produce a report relating to the context of the assignment.

The assignment has a greater emphasis on the assessment of skills than the question paper and marks awarded reflect this. (SQA, 2012).

The Higher Economics syllabus provides an interesting perspective on the direction that the revised specification for Leaving Certificate Economics could take. Undoubtedly, the approach to assessment at upper secondary in Scotland includes an element of internal assessment, which differs from the Irish system. Nevertheless, the course assessment provides some useful reflections. In common with the current Irish syllabus are the wide-ranging short questions. Regarding long questions, the Scottish syllabus limits the question choice available to students, ensuring that mandatory components of the course are covered and assessed. Most interesting is the assignment, which facilitates a broader range of skills to be assessed for certification, particularly those of critical thinking, researching information and using economic data to develop informed viewpoints and validate arguments. It provides a noteworthy model of an assessment task for consideration.

## Northern Ireland

The Northern Ireland Curriculum, set by the Council for the Curriculum, Examinations and Assessment (CCEA), enables students to study a broad base of subjects on entering secondary school. At age 14, pupils select which subjects to continue to study for General Certificate of Secondary Education (GCSE) examinations and many study for eight to ten GCSEs. GCSEs mark the end of compulsory education in Northern Ireland. At age 16, some pupils stay at school and choose to study Advanced Level AS (Advanced Subsidiary) and A2 level subjects. Those choosing AS and A2 levels normally pick three or four subjects. Senior cycle economics would equate to the AS and A2 Level Economics courses, although aspects of it would be introduced at GCSE level.

The GCSE in Economics course is structured around five sections: Basic Economic Ideas; Producing and Consuming; Financial Capability; Managing the Economy, and Trade, Aid and Development.

- Basic economic ideas: explores the fundamentals of economics including the factors of production, choice and specialisation
- Producing and consuming: looks at demand, supply and price determination, competition and growth, costs and revenue and market failure
- Financial capability: explores money and financial products, managing personal finance, the financial services industry and business finance
- Managing the economy: focuses on the public and private sector including government economic objectives, economic growth and economic indicators
- Trade, aid and development: explores trade and globalisation.

In terms of assessment at GCSE level, students take two papers. One paper requires students to write a structured report based on a pre-released case study. The second paper has a range of different question types: short answer and data response questions, which are compulsory, and one essay from a choice of four.

The Economics AS course is divided into two units: AS 1 and AS 2.

- Unit AS 1: *Markets and Prices* explores the nature of the basic economic problem and the role of markets and prices in resolving it including how governments may intervene.
- Unit AS 2: *The National Economy* introduces students to macroeconomic issues in the domestic context of the United Kingdom economy and develops students' understanding of, and ability to apply, some of the major statistical indicators of economic performance. It provides a framework for students to investigate economic issues affecting other countries.

For students to achieve an A level in economics they must complete units AS1 and AS2 plus units A2 1 and A2 2.

- Unit A2 1: *Business Economics* builds on the content of unit AS 1. It examines in greater depth the decision-making processes of firms in the short and long runs, various market models and their usefulness in explaining market behaviour, current influences on firms' behaviours such as globalisation, environmental considerations and the growth of the internet, and the role and effectiveness of government policy in attempting to promote competition.

- Unit A2 2: *The Global Economy* deepens and extends understanding of policy issues examined in AS 2 to include consideration of trade, trade barriers and participation in international organisations and agreements, UK membership of the European Union, issues arising from increasing globalisation, and reasons why nations experience different stages of economic development.

Assessment for units AS 1 and AS 2 is by means of an external examination paper which includes data response and a structured essay for each unit. Assessment for A2 1 and A2 2 level includes an unseen case study and essay for each unit.

The Northern Ireland Economics syllabus provides a useful structure in terms of how the course is organised and the topics and themes covered. However, it is recognised that students studying for A levels are studying three to four subjects in greater depth than students within the Irish system, who study six to eight subjects. Therefore, the level of depth and difficulty in the A level Economics course is greater.

The approach to assessment warrants consideration in terms of the variety of question-types asked, from short answer to essay responses. Particularly, the assessment of a pre-released case study at GCSE level is similar to the proposed means of assessment in the 2007 syllabus. Drawing from this syllabus, further deliberation of case-studies, pre-released and unseen, as an assessment tool in the revised specification will be required.

## Australia (Queensland)

Since 2010, Australia has been moving toward a national framework for schooling aimed at raising education standards and achieving nationally consistent curriculum, assessment and reporting. The Australian Curriculum, Assessment and Reporting Authority (ACARA) is the independent authority responsible for the development of the national curriculum and assessment programme for Australian students. However, states and territories are responsible for the structure and organisation of their senior secondary courses and for determining how they will integrate the Australian Curriculum content and achievement standards into their courses. Queensland schools continue to use the current Queensland Studies Authority (QSA) syllabuses until the revised syllabuses based on the Australian Curriculum are available.

The QSA Economics Senior Syllabus is designed for 220 hours tuition. The course aims to provide opportunities for students to know and understand core economic concepts through:

- balance and integration of core and elective topics

## Background Paper Leaving Certificate Economics

- a range of real and hypothetical situations
- an increasing complexity of challenge, i.e. economic knowledge, concepts, models and skills are applied to economic issues or problems not previously encountered, which are not routine and require critical thinking
- acknowledgement of the impact of globalisation on economic systems (QSA, 2010)

### **Core topics** (mandatory)

- Markets and models
- Contemporary micro-economic issues
- Contemporary macro-economic management
- International economics

### **Elective topics** (minimum of four and maximum of six)

- Share market
- Personal economics: consumers' economic rights, obligations, responsibilities
- Globalisation and trade
- Industry and market concentration
- Income and wealth distribution
- Finance
- Income and expenditure analysis
- Population
- Environment
- Labour
- Systems and development
- School elective: Include a statement of intended learning linking the elective topic to the organisational framework of the syllabus. Must be significantly different from the elective and core topics described in the syllabus.

The approach to teaching and learning embedded in the syllabus encourages teachers to foreground the economic problem, use key economic models such as circular flow and cost–benefit, and require students to use inquiry, which develops research and communication skills. The investigation of an identified economic problem is considered fundamental to the course of study. The curriculum aims to embed an inquiry approach in the teaching and learning activities. Inquiry involves a recursive and reflective process, either to monitor progress or to adapt and adjust the questions or hypothesis in relation to new information.

In Queensland, assessment is standards-based. The standards for each subject are described in dimensions, which identify the valued features of the subject about which evidence of student learning is collected and assessed. The standards describe the characteristics of student work. Judgments about student achievement made at exit from a course of study must be based on an assessment programme of continuous assessment. Continuous assessment involves gathering information on student achievement using assessment instruments administered at suitable intervals over the course of study. When students exit the course of study, teachers make a summative judgment about their levels of achievement in accordance with the standards matrix.

In Queensland, judgments about student achievement are made at exit from a course of study and are based on an assessment programme of continuous assessment. The assessment is based on the mandatory aspects of the syllabus, which are:

- the general objectives of knowledge and understanding, investigation, synthesis and evaluation and
- two core topics must be studied and assessed in Year 12
- the electives as selected by the school.

Assessment techniques in Economics include:

- supervised written assessment
- research assessment

The Queensland economics syllabus is designed for a greater number of hours than the Irish syllabus and therefore requires a greater depth and breadth of content and skills development. What particularly merits consideration in the revised specification is the inquiry approach to the teaching and learning of economics. An inquiry approach draws on students' knowledge and understanding of the subject as well as contemporary economic issues and questions, developing skills of critical thinking, reflection and analysis.

The approach to assessment is very different in Queensland, where internal assessment and moderation are used by teachers to make judgements on students' achievement. There is some commonality with other jurisdictions in terms of the assessment techniques employed including the written assessment and a project-based research assessment. Flexibility is embedded into the course through the elective selection, which differs from other jurisdictions including Ireland, where the majority of course units are mandatory.

## Australia (New South Wales)

Senior Cycle education in New South Wales is undertaken in Years 11 and 12, when students study for the Higher School Certificate (HSC). HSC results are based on state-wide examinations and school-based performance and the HSC is generally a pre-requisite for study at third level. Stage 6 syllabuses describe the Preliminary and HSC courses to be taught within each subject that may be undertaken as part of the HSC pattern of study.

The aim of the Economics Stage 6 New South Wales curriculum is 'to develop students' knowledge, understanding, skills, values and attitudes for effective economic thinking that contributes to socially responsible, competent economic decision-making in a changing economy'. (Board of Studies, NSW, 2009 (a))

Through the study of Economics Stage 6, it is intended that students develop:

Knowledge and understanding about:

- the economic behaviour of individuals, firms, institutions and governments
- the function and operation of markets
- the operation and management of economies
- contemporary economic problems and issues facing individuals, firms and governments

Skills to:

- investigate and engage in effective analysis, synthesis and evaluation of economic information from a variety of sources
- communicate economic information, ideas and issues in appropriate forms

Values and attitudes about:

- informed participation in economic debate and decision-making

- responsible approaches towards people, societies and environments. (BOS, NSW, 2009(a)).

Economics Stage 6 consists of a Preliminary course and a Higher School Certificate (HSC) course. The Preliminary course is microeconomic in nature, focusing on aspects of the economic behaviour of consumers, business and governments. Two key markets, the labour market and the financial market, are examined in detail. The Preliminary course corresponds to 120 hours of tuition time. The HSC course focuses on the management of an economy and is macroeconomic in nature. It examines the external framework in which the Australian economy operates. The course investigates the impact of the global economy on the Australian economy and the link between economic issues and the management of an economy. The HSC course also corresponds to 120 hours of tuition time. The Preliminary course is a pre-requisite for completing the HSC course.

A key feature of the syllabus is its 'problems and issues' approach to the teaching and learning of economics. The goal of this approach is to relate the content of economics to the economic problems and issues experienced by individuals and society.

The key issues are:

- economic growth and quality of life
- unemployment
- inflation
- external stability
- distribution of income
- environmental sustainability

The focus of the Preliminary course is on the practical problems and issues that affect individuals, firms and governments. In the HSC course, the problems and issues are studied in relation to the national, regional and global economies.

Internal assessment and external examinations of student achievement are used in assessment of Economics Stage 6 in New South Wales. Internal assessment is considered to provide a measure of a student's achievement based on a wider range of syllabus content and outcomes than may be covered by the external examination alone. A variety of types of task are intended to be used by teachers to give students the opportunity to demonstrate the curriculum's learning outcomes in different ways and to improve the validity and reliability of the assessment. A guideline of three to five internal assessment tasks is considered sufficient and teachers use their discretion in determining the manner

in which they allocate tasks within the course content, for example, research reports or research-based extended responses. Marks for internal assessment are awarded to students on demonstration of the following:

- Knowledge and understanding of course content
- Stimulus-based skills
- Inquiry and research
- Communication of economic information, ideas and issues in appropriate forms

50% of the student's final mark in Economics Stage 6 is awarded by achievement in the written examination at the end of the course. The examination consists of a written paper and includes four sections:

- Objective response questions
- Four short-answer questions
- Two stimulus-based extended response questions. Candidates are required to answer one question. The expected length of response is approximately 800 words.
- Two extended response questions. Candidates are required to answer one question. The expected length of response is approximately 800 words. (BOS, NSW, 2009 (b))

The NSW economics syllabus provides another perspective on the direction that the revised specification for Leaving Certificate Economics could take. The syllabus sets out explicitly not only the knowledge, but the skills and values that it aims to foster in students of economics. The course is designed for more hours than a 180-hour specification, which indicates that the difficulty, breadth and depth of the course is greater than can be provided for within the Irish context. The 'problems and issues' approach to teaching and learning deserves attention as it situates the content in the current economic environment, making it relevant and meaningful to the lives of students. The emphasis on environmental sustainability is note-worthy, especially in light of the recent publication of the first National Strategy on Education for Sustainable Development (2014) by the Department of Education and Skills.

While the approach to assessment differs to the Irish system with the incorporation of internal and external assessment, aspects of it do encourage contemplation. There is a requirement to examine a broader range of skills than those assessed in a written assessment and any practical assessment task that may be incorporated into the revised specification should reflect this condition. Equally, a more



limited question selection is offered to students than in the Leaving Certificate Economics examination although a variety of different question types are employed.

## New Zealand

The Ministry of Education of New Zealand is responsible for the development of the New Zealand Curriculum (NZC). Students can choose to study Economics at Senior Secondary as part of their assessment for qualifications, the National Certificate of Educational Achievement (NCEA), New Zealand's senior secondary school qualification. In each subject, skills and knowledge are assessed against a number of standards (learning outcomes). Schools use a range of internal and external assessments to measure how well students meet these standards. Externally assessed standards are assessed by an examination paper at the end of the year and accompanied by exemplars of students' achievement levels. Internally assessed standards are assessed during the year and accompanied by exemplars of student work. Internally assessed standards generally relate to the demonstration of practical skills and don't lend themselves to terminal assessment.

The senior secondary economics syllabus' objectives include:

- Helps to solve issues people face in their everyday lives
- Recognises the different perspectives and values individuals and groups bring to economic decision-making
- Prepares students to participate effectively in the real world (TKI, 2013)

By studying the economics course, students will gain knowledge, skills, and experience to:

Level 1 (undertaken in Year 11, students aged 15)

- Understand how, as a result of scarcity, consumers, producers, and government make choices that affect New Zealand society.
- Understand how the different sectors of the New Zealand economy are interdependent.

Level 2 (undertaken in Year 12, students aged 16)

- Understand how economic concepts and models provide a means of analysing contemporary New Zealand issues.
- Understand how government policies and contemporary issues interact.

Level 3 (undertaken in Year 13, students aged 17)

## Background Paper Leaving Certificate Economics

- Understand that well-functioning markets are efficient but that governments may need to intervene where markets fail to deliver efficient or equitable outcomes.
- Understand how the nature and size of the New Zealand economy is influenced by interacting internal and external factors.

Students engage with economics content progressively over the three years of senior secondary education, incrementally advancing their knowledge, understanding and skills in the subject.

- At level 1, key economic conceptual understandings related to scarcity are introduced. Students gain an understanding of everyday microeconomic choices consumers, producers, and government need to make, because of scarcity, and the implications of these choices for society. Students are introduced to the supply and demand model, using it to support predictions they make about the effect of choices on society.
- At level 2, the focus is contemporary macro-economic issues. Students define and use statistical data to measure these issues. They use models to assist them in gaining an understanding of cause and effect. At this level, students will recognise the interdependent nature of the New Zealand (NZ) economy by examining the impact government policies designed to address contemporary economic issues have on various groups in society. They will also understand that government policies may have unequal effects.
- At level 3, students use more complex microeconomic models to gain an understanding of the efficiency of markets. Students will see that perfectly competitive markets are allocatively efficient. But in the real world firms don't meet the conditions for perfect competition, meaning government intervention in markets may be required to improve efficiency and/or equity. Analysis at this level will show that government intervention may involve a trade-off between efficiency and equity. Macroeconomic analysis at this level involves looking at the performance of the NZ economy. The impact of internal and external influences on the New Zealand economy are analysed by students using economic models that allow them to predict the impact of the influences on the macroeconomic goals of government. (TKI, 2013)

Key concepts are the big ideas and understandings embedded in Economics and include:

- Scarcity results in choices with opportunity costs
- Values influence economic choices
- Markets provide incentives and ration scarce resources
- Perfectly competitive markets are efficient

## Background Paper Leaving Certificate Economics

- Market failure may require government intervention
- The benefits of market activities may not be equitable
- Government intervention may involve an equity–efficiency trade-off
- Interdependence results in flow-on effects
- Marginal analysis will maximise results
- Economic indicators aid economic analysis
- Inflation can distort economic indicators
- Economic models aid economic analysis
- Micro and macroeconomics

The syllabus embeds an inquiry-based approach to teaching and learning. The NZC teaching as inquiry model places the student at the centre of teaching and learning. There is no particular starting or ending point of the inquiry, and it should be used as a cyclical process. Currently, achievement standards in Economics are in development to align them with The New Zealand Curriculum.

The NZ economics syllabus has much in common with other international curricula examined. As with other jurisdictions including Ireland, there is a dual focus on micro- and macroeconomics. Of significance is the importance of a student-centred approach to teaching and learning. Teachers are encouraged to draw economic information from contemporary events and data and embed it into their classroom practice, making the content more appropriate and relevant to students' reality. As with the Australian syllabuses, an inquiry approach to teaching and learning is endorsed.

The examination of international curricula provides a context through which the revision of the syllabus can be considered. The directions that economics curricula in other countries have taken provides an important source for discussing and developing the new specification for Leaving Certificate Economics.

## 5. Issues for Consideration

This section sets out a number of issues for consideration in the revision and development of a specification for Leaving Certificate Economics. These arise from the nature of the subject itself as well as its association with, and impact on, a wide range of social, cultural, political and economic factors.

### Scope of the subject

Given the ever-changing developments in the domestic and international economy that underpin and contribute to the study of economics, consideration will need to be given to the range of areas to be included in the specification. The feasibility of facilitating student interest in a wide range of economic contexts while at the same time maintaining a focus on the fundamental economic principles included in the specification will require consideration.

It will be important to consider the balance which is desirable in the revised specification between an emphasis on developing economic knowledge and skills in and of themselves through the study of economics, and the role which economics plays in the organization and functioning of the domestic economy and in political decision-making, wealth distribution and economic and financial policy development, which impact on every aspect of Irish contemporary life.

In addition, the specification will need to include sustainability and environmental issues associated with economics, exploring the economy's interaction with and impact on society and the environment. The interconnectivity of entrepreneurship and economic growth also requires consideration in the revision of the new specification. The first Action Plan for Jobs, published by the Government in February 2012, recognised that economic growth was central to the recovery of the Irish economy. The role of entrepreneurship as a way of thinking can lead to new ways of providing for economic growth through exports and employment should therefore be addressed in the new specification.

However, while it is tempting to add 'vital' areas to ensure the specification is robust and comprehensive, one of the tasks of the development group will be to ensure that students can engage with the subject in a meaningful way, in a way that will enable them to understand economic principles and critique economic policy. This will involve difficult decisions about what should be included in a subject that is designed for 180 hours of class time.

## Economic crisis

The subject area of economics is a dynamic one. Since 2008 turbulent developments in the domestic and international economy have had a dramatic impact on and implications for Ireland's economy and the discipline of economics more generally. From a domestic perspective, our economy has been significantly impacted by issues such as the banking crisis, the recession, the fluctuating property market and the 2010 European Union/International Monetary Fund bailout. The nature of our small, open economy has fundamentally been affected by international crises including the collapse of Lehmann's bank in the United States, instability in the Eurozone and the influence of European politics and policies in government policy development. In light of the major challenges and changes facing the Irish and world economics, changed viewpoints and financial institutions, the content in some of the areas of the 2007 syllabus will require modification and future-proofing.

## The impact of globalisation

Economics, as Alfred Marshall the English economist has stated, focuses on 'the ordinary business of life'. Economics is also concerned with the interdependence between the actions and behaviours of individuals and individual units in society. Globalization is a process of interaction and integration among the people, companies, and governments of different nations, a process driven by international trade and investment and aided by information technology. It is also influenced by local taxation policies. This process has effects on the environment in particular on sustainable development, on culture, on political systems, on economic development and prosperity, and on human physical well-being in societies around the world. Consideration will need to be given to how this specification allows students explore the effects of globalisation on citizens in Ireland and throughout the world and the impact of globalisation on trade and national economic policies.

## The inquiry approach to economics

In the NCCA consultation report on the draft Leaving Certificate specifications for biology, chemistry and physics (NCCA, 2012(a)), the move to inquiry and practical-based learning in the sciences was welcomed. As a social science, a revised specification in economics could benefit from an inquiry approach, fostering innovation, creativity and critical thinking, which are fundamental to developing a culture of entrepreneurship and economic and social progress. In the last number of years the Australia (Queensland) economics curriculum (2010) and New Zealand economics curriculum (2013)

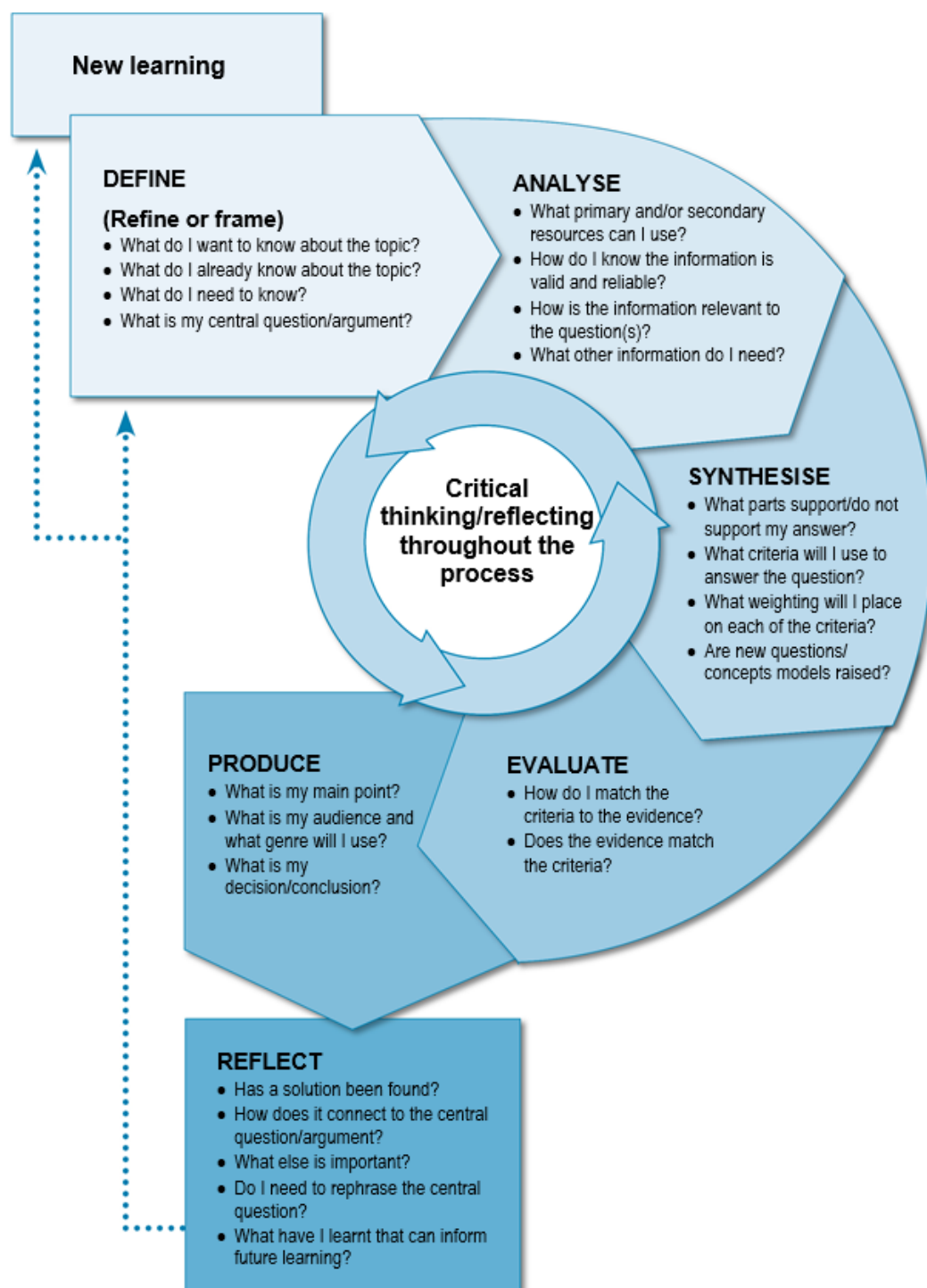
have promoted and fostered an inquiry approach to the teaching and learning of economics. The teaching as inquiry model provides an evidence based framework for developing approaches to learning that spark the curiosity and engagement of students.

While the international literature on inquiry-based and problem-based approaches to teaching and learning Economics at upper secondary is limited, there is an emerging body of research coming from the US which advocates a problem-based approach which is “characterized by the use of ‘real-world’ problems as a context for students to learn critical thinking and problem-solving skills” (Duch 1995). In contrast with the typical, textbook-driven approach, teachers use a specific economic problem as the basis for a set of disciplined and strategic analytic steps. Students learn to contextualize, understand, reason, and solve what may, at the outset, have been a problem for which they had no analytic tools. This inquiry-based pedagogy is rooted in the constructivist ideas and developmental learning theories of John Dewey and Jean Piaget (Memory et al. 2004), which have been applied in diverse educational domains.

Inquiry involves a recursive and reflective return to earlier steps in the pedagogical and learning cycle, either to monitor progress or to adapt and adjust the questions or hypothesis in relation to new information. Inquiry requires careful analysis of the information acquired and emphasis is placed on increasing student awareness of ways in which the application of an inquiry process may serve to determine outcomes. In analysing data collected by others, the student is aware of variables that can affect the collection and validity of this data and avoid making unsupported generalisations. Evaluation and synthesis must be supported by the processing of data and evidence. (QSA, 2010)

An inquiry approach to economics is intended to foreground an economic problem, enabling students to apply key economic models and principles to explore the problem, and require them to use inquiry to analyse the problem and evaluate and draw conclusions. Economic problems can include, for example, economic policies, economic data and economic opinions or viewpoints. Figure 1 provides a visual representation from the Queensland Studies Authority (QSA) of the economics inquiry process. The inquiry approach to the teaching and learning of Economics will be further investigated as part of the work of the Development Group.

Figure 1: Economics inquiry process (QSA, 2010)



## Assessment of economics

With the introduction of a second component of assessment in senior cycle subjects generally, the nature and relative weighting of the two suggested components in the 2007 syllabus, the case study and written assessment, and the focus of each, will require consideration in the revised specification. In line with *Towards Learning: An Overview of Senior Cycle Education* a clear alignment between curricular aims and assessment approaches in the economics specification will be required and the assessment components will have to be considered in this context.

In recent years there has been some concern about the issue of rote-learning, students demonstrating an insufficient understanding of economic concepts and a lack of *meaningful engagement, analysis, and evaluation of economic topics, which is a particular requirement at the Higher Level (SEC, 2009)*. The Chief Examiner's report on Leaving Certificate Economics 2009, commended the evidence that topical economic issues are being discussed in the classroom. However there was a concern that an over-emphasis on preparation for the examination through rote learning is also evident and this resulted in low marks being awarded to some candidates. Of note, the 2009 report made the following recommendation:

*In relation to the economic effects of an increase in the level of savings on the Irish economy, the majority of candidates could give only one distinct economic effect. Some designated class time should be given to candidates to engage in critical thinking so that candidates may be more willing to answer questions where candidate judgment/opinion is sought in relation to current economic issues. (SEC, 2009. p. 11)*

While the syllabus is intended as an introductory course of study at senior cycle, and this is reflected in the subject content and depth of understanding required, these issues merit consideration. It is widely recognised that Leaving Certificate examinations are important life events for young people and have a great deal of pressure associated with them. It is a matter of concern when students rote-learn pre-prepared examination questions that they do not fully understand. While it is appreciated that an understanding of examination formats is necessary, the syllabus and assessment components should endeavour to dissuade teachers and students from taking this too far, as it is poor preparation for future life, work and study.

The issue of choice on the examination will require consideration. Trends in other subjects have pointed towards the removal or reduction of choice on examination papers. Where there is too much choice, students may omit large sections of the specification and this in turn affects their experience of the subject.



## Senior and junior cycle developments

All revised and new senior cycle syllabuses for subjects follow a common format, which will be applied to the revised specification. Support material will need to be developed to illustrate how the learning outcomes can be achieved and to support teachers in planning and preparation as well as teaching and learning approaches.

Furthermore, developments in the area of the *Framework for Junior Cycle* (2012) will also need to be reflected in the revised syllabus, particularly as a new Junior Cycle Business Studies specification will be available from September 2016. A clear correlation with the understanding, skills and values developed in junior cycle will need to be incorporated into the revised specification.

## 6. Brief for the review of Leaving Certificate Economics

In line with current developments and the new structures (NCCA, 2012(b)) the specification will be prepared by the Economics Development Group. It will be student-centred and outcomes-based, and follow the format of other senior cycle specifications:

- Introduction and rationale
- Aim
- Objectives
- Structure
- Key skills
- Units of study
- Learning outcomes
- Assessment
- Assessment components
- Assessment criteria.

In general terms, the specification should be aligned with levels 4 and 5 of the National Framework of Qualifications.

The specification will be at Higher and Ordinary level and it will be designed to be taught and assessed in 180 hours.

The revised specification will be organised around units and learning outcomes. It will consider consolidating the 16 units of the 2007 syllabus into four or five units, addressing the nature of these units and the number of learning outcomes pertaining to each unit in line with the senior cycle template guidelines.

The key skills of senior cycle will be embedded, as appropriate, in the learning outcomes of the specification.

The content in some of the areas of the syllabus will be modified and future-proofed in light of the major challenges and changes facing the Irish and world economics, changed viewpoints and financial institutions.

It will be developed with cognisance of the connections and synergies with other subjects.

It will address assessment requirements, ensuring that assessment methods are in line with ongoing developments in assessment at senior cycle, where the emphasis on the demonstration of skills is being promoted and integrated into syllabuses.

More specifically, the development of the revised specification will address

- The rationale for studying Senior Cycle Economics, making it transparent and evident to students, teachers and parents in the specification
- How the course will be organised: the number and nature of the units included in the specification
- How practical, inquiry-based teaching and learning will be promoted
- Continuity and progression: how to connect with and build on related learning at junior cycle as well as future learning in life, study and work.
- How the specification, in its presentation and language register, can be strongly student-centred, having a clear focus on what the students can do to develop and demonstrate their knowledge, skills, capabilities and achievements
- How the development of key skills will be embedded
- How the specification can develop students' economic literacy and achievements
- How the specification can develop students' analytical and inquiry skills
- How the specification can develop in students a responsible attitude in relation to citizenship, society and economic sustainability
- How personal, political and societal interests and concerns about business and the economy can be used as a reference point from which the curriculum is specified
- The emphasis placed on discussion and analysis of business, technological, political, social and economic issues that permeate contemporary life
- How student work will be externally assessed; the provision of multiple, diverse and appropriate opportunities available for students to achieve.

## Background Paper Leaving Certificate Economics

The work of the Economics Development Group will be based, in the first instance, on this brief. The draft specification will be completed in 2015, for implementation in September 2017. In the course of its work and discussions, elaborations of some of these points and additional points may be added to the brief.

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# Appendix 1: Leaving Certificate Economics Syllabus

## Leaving Certificate Programme

### ECONOMICS

#### *Ordinary and Higher Level Courses*

#### **Objectives**

- (1) To give students a general picture and an understanding of economic activities, patterns and principles.
- (2) To develop in students the capacity to apply these principles and to help them transfer this knowledge to new situations, and to achieve critical thought.
- (3) To develop in all our students an interest in everyday economics and to aid them in their education for citizenship.
- (4) To provide a suitable basis for further study of the subject.

#### **Note:**

While Ordinary and Higher level pupils cover the same ground, the latter will be expected to have a wider knowledge and deeper understanding than the pupils who present at Ordinary Level.

#### **Introduction**

Economics as a science; its scope, purpose and limitations. Basic economic concepts such as wealth, income, welfare, scarcity, choice, wants, needs, goods and services, utility, production, consumption and exchange, opportunity cost, diminishing returns, open and closed economics.

#### **Production and Consumption**

- (a) Resources (factors of production)  
Natural – Land, Man made – Capital; Human – Labour and Enterprise.
- (b) Production units; Firms and industries.  
Consumption units: Households.
- (c) Scale of production; size, type and location of firms and industries. Economies and diseconomies of scale.

#### **Economic System and Economic Thought**

Brief historical outline of economic thought – Smith, Marx, Keynes etc.  
Market, centrally planned and mixed economies.

#### **Demand and Supply**

- (a) Concept of a market.  
Factor, intermediate and final markets.
- (b) Consumer demand; assumptions; individual and market demand; influences on demand; marginal utility; demand curves; shifts in demand; different forms of demand; elasticities of demand.

- (c) Supply; assumptions; individual and market supply; significance of short-run and long-run in supply; influences on supply; shifts in supply. Cost curves; fixed, variable, average and marginal. Social costs and benefits; elasticity of supply.

### **Price and Output**

- (a) Determination of price and output under conditions of perfect competition. Assumptions. Short and longrun equilibrium of the firm and industry. Implications of perfect competition for producer, consumer and society.
- (b) Determination of price and output under monopoly conditions. Causes and characteristics of monopolies. Short and longrun equilibrium of the monopolist. Price discrimination. Implications of monopoly for producer, consumer and society. Control of monopolies.
- (c) Determination of price and output under conditions of imperfect competition and oligopoly. Assumptions. Short and longrun equilibrium of the firm and industry. Non-price competition.

### **Factor Incomes**

Demand for factors. Marginal revenue product theory; its uses and limitations.

Rent: supply and demand for land. Economic rent as applied to all factors.

Wages: supply and demand for labour. Influences on supply and demand.

Trade unions: their organisation and effects on the supply curve of labour. Differing wage rates.

Interest: outline of Classical and Keynesian theories of interest.

Profit: as an incentive, a reward and as a cost of production.

### **Determination of National Income and its Fluctuations**

Concept of national income; its measurement and statistical sources.

Factors influencing the size and composition of national income. Its limitations as a measure of economic performance.

### **Money and Banking**

Brief historical survey; functions of money; types of money. Banks and the creation of credit. Central banks and the control of money. Demand for and supply of money. National and international financial institutions. Recent developments.

### **The Government in the Economy**

Brief outline of the government's economic role.

Government finance. Sources of income of central and local government. Size, composition and influence of government expenditure. The budget. The economic implications of budget deficits and surpluses.

### **Inflation**

Measurement of prices. Causes, remedies and effects of inflation in open and closed economies. Deflation and its effects.

### **International Trade and Payments**

Brief historical survey. Theory of international trade. Arguments for and against free trade. Institutions which promote free trade. Restrictions on free trade.

Terms of trade.

Exchange rates and their determination. Floating, fixed and managed rates of exchange. Revaluation/Devaluation. Balance of trade and balance of payments. Short term and long term deficits and surpluses: significances and remedies.

**Economics of Population**

Global and national population, size, composition and trends. Over, under and optimum population. The labour force and employment. The importance of population, and its influence on economic development and growth.

**Economic Growth and Development**

Meaning and significance. Relative income levels of different countries. Reasons for disparities. Economic planning, growth and the environment; the Irish experience.

**Economic Policies, Problems and Conflicts**

Government social and economic aims and their significance. Methods of achieving these aims. Possible conflicts in achieving them simultaneously in a national and international context.



## Appendix 2: Template for Senior Cycle Specifications

While some may have distinct characteristics, arising from the area of learning involved, senior cycle specifications, will have a number of features in common.

<b>Overview of Senior Cycle</b>	This will be common to all specifications
<b>Introduction to Leaving Certificate Economics</b>	The aim and objectives of the subject will be set out.
<b>Related learning</b>	This section will refer to curriculum and learning links with early childhood, primary, junior cycle, senior cycle, further study and the community and society.
<b>Overview of specification</b>	An overview of the subject will illustrate how it is organised and structured, the learning involved in units and learning outcomes, time allocation, the skills involved, teaching and learning approaches and differentiated learning.
<b>Units of Study</b>	This section will be presented as a number of units of study. Each unit will comprise a series of topics and their associated learning outcomes.
<b>Overview of Assessment</b>	This section will refer to assessment related to certification. It will outline the assessment component/s. These will be supplemented by other detailed assessment material and arrangements, from the SEC and NCCA, at appropriate times during the senior cycle.
<b>Assessment components</b>	This section will refer to written and practical examinations, where appropriate, and relevant assessment criteria.
<b>Reasonable Accommodations</b>	This section will refer to the scheme of Reasonable Accommodations, operated by the State Examinations Commission, which is designed to assist candidates in the Leaving Certificate who have specific learning difficulties.

