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INVESTING IN NATIONAL AMBITION: A STRATEGY FOR FUNDING HIGHER EDUCATION

REPORT OF THE EXPERT GROUP ON FUTURE FUNDING FOR HIGHER EDUCATION

MARCH 2016

Table of Contents

Foreword.....	4
Executive Summary.....	6
Chapter 1 Introduction.....	10
1.1 Work of the Expert Group.....	10
1.2 Policy Context.....	12
1.3 Structure of the Report.....	13
Chapter 2 The Case for Investment.....	14
2.1 The Contribution of Higher Education to Prosperity, Society, Culture and Public Life.....	14
2.2 Understanding the Contribution of Higher Education.....	16
2.3 The Contribution of Higher Education to Ireland’s Development is Now Threatened.....	18
2.4 Linking Investment, Quality and Verification.....	21
Chapter 3 Guiding Principles.....	23
3.1 A System Perspective: Sustainability, Certainty and Simplicity.....	23
3.2 National Ambition.....	24
3.3 Quality in student experience, qualifications and competences.....	24
3.4 Access, Participation and Progression.....	25
3.5 Fairness and Balance.....	26
Chapter 4 The Spectrum of International Funding Arrangements.....	27
4.1 General Lessons from International Experience.....	27
4.2 A Spectrum of Approaches.....	28
4.3 Drawing on International Experience to Find a Reformed Irish Funding Model.....	34
Chapter 5 Enhanced Investment and Funding Options.....	36
5.1 Scale of Ambition and Investment.....	36
5.2 Three Funding Options for Consideration.....	38

5.3	Employer Contribution.....	44
5.4	Enhanced Student Support.....	45
5.5	Capital Funding.....	47
5.6	Complementary Developments.....	48
5.7	Perceived Strength and Weaknesses of Each Funding Option.....	49
Chapter 6 Creating a Virtuous Circle of Investment, Quality and Verification.....		56
6.1	Linking Investment with Quality and Outcomes.....	56
6.2	Resource and Funding Model: Ensuring Investment is Used Effectively.....	57
6.3	The Quality of Higher Education Programmes.....	59
6.4	Verification of Outcomes.....	62
Appendix 1: Terms of Reference and Membership of the Expert Group.....		64
Appendix 2: Current Funding of Irish Higher Education.....		65
A2.1	Introduction.....	65
A2.2	An Overview of the Higher Education System.....	65
A2.3	Institutional Funding.....	66
A2.4	Student Support Funding.....	69
Appendix 3: Analysis and Modelling Work on ICLs in Ireland.....		71
A3.1	Introduction.....	71
A3.2	What Income Contingent Loans Are Designed to Achieve.....	71
A3.3	Design of an Income Contingent Loans Scheme.....	72
A3.4	Modelling of an Income Contingent Loans Scheme for Ireland.....	75
A3.5	Some Considerations about an Income Contingent Loans in Ireland.....	80
A3.6	Conclusion.....	85
Bibliography.....		96



Foreword

In the decades since the 1950s Ireland's higher education system has been at the heart of an enormous economic and societal transformation. The numbers going into higher education have soared, with almost half of all workers now having a third level qualification. Its contribution to our society, economy, culture and public life, including the formation of citizens, is widely understood and valued.

As we transition out of a deep crisis and rebuild our capabilities to create more jobs, restore living standards, enhance social services and address societal challenges, we need once again to recognise higher education as a key enabler.

To shape our economic, social, cultural and environmental future and realise our national ambitions in these areas, we will require:

- graduates with the knowledge and capabilities to meet the changing needs of our society, economy and organisations in the medium and long term;
- active research across the full spectrum of humanities, social sciences and STEM in ways that contribute to our further economic and societal development;
- real access for under-represented groups, as a core part of this country's social contract.

As an Expert Group we were tasked with the challenge of assessing the long term funding requirements of the higher education system. We were also asked to identify funding options that would enable us to continue the development of the sector on a sustainable basis and realise our national ambitions.

As a Group we engaged in an extensive process of consultation. We listened to the wide range of perspectives—from students, parents, higher education staff and management, employers, social activists, public bodies and public representatives. We engaged international expertise and examined in detail alternative approaches.

From these consultations it is clear that there is a need and a desire for urgent reform of the funding landscape. The funding system is simply not fit for purpose. It fails to recognise the current pressures facing higher education institutions or the scale of the coming demographic changes. It also fails to fully recognise the pressures on families and students, not just because of the €3,000 fee but also the high living and maintenance costs associated with studying and successfully progressing through college. These pressures are now seriously threatening quality within the system and the ability of our sons and daughters to gain the knowledge and develop the capabilities that will enable us to realise our national goals.

Countries with whom we seek to compare ourselves have pinpointed investment in higher education, further education and apprenticeships as the catalyst for economic and social development. In these countries post-secondary level education is well resourced, high-quality and engaged. Students, parents, staff and employers have high expectations.

We need to invest significantly more resources but we also need to demand that we get higher quality and better outcomes for our investment. We need a system that is responsive to the changing and diverse needs of learners, society and the economy; that relentlessly seeks to

enhance quality and outcomes; and that is part of a much broader, coherent and integrated post second level system. Many initiatives are in train across the sector to improve its effectiveness. These must be built on, deepened and broadened. This will require renewed commitment by all stakeholders.

This report sets out the scale of funding required and three funding options which can deliver the increased investment for institutions and students. They each have relative strengths and weaknesses but each one, depending on your perspective, is a credible and feasible option provided that it is implemented fully and in a committed and coherent manner. The choice between them will require careful consideration.

However, it is and must be a choice between these three, not between these and the status-quo. A decision to accept the status quo or to make minor tweaks to it is incompatible with our national ambition as embodied in Innovation 2020, the National Skills Strategy and the National Access Plan. The status quo in our approach to funding higher education will hollow-out these and many other strategies.

I also recognise the pressure that remains on public resources and household incomes and the many competing demands for improvements across the range of public services. However if we are to really tackle the current funding crisis and deliver on the level of vision that is set out in this report - if we are to achieve a step-change in quality levels, comprehensive student financial support, and a more holistic treatment of all students across the spectrum of undergraduate, postgraduate and part-time

provision, I believe that ultimately a more comprehensive and fundamental change in the funding model is required. One that will provide for a sharing of costs but that will do so in a fair and attainable manner.

I believe we now have an opportunity to recommit and reinvest in higher education. We have the opportunity to set out a new level of ambition for the system and restore it as key enabler of our future development. As a country, we need to be willing to make bold decisions that will ultimately pay dividends for all of us - families, businesses, taxpayers, society.

I would like to thank everyone who has engaged in this process. The Group's considerations were enriched by the constructive, valuable and insightful inputs from all stakeholders which demonstrated in itself the shared commitment to our higher education system. I would also like to thank all the members of the Expert Group for their exceptional contribution of time and effort and for their open and positive approach to discussions. Finally, I would like to acknowledge the secretariat team from the Department, the HEA and the National Economic and Social Council whose knowledge and guidance were invaluable throughout this process.

We hope that this report and its recommendations will allow an open and considered debate on the scale of the challenge and the options available and will lead to decisive action.

Peter Cassells
Chair
Expert Group on Future Funding of Higher Education

Executive Summary

The Expert Group on Future Funding for Higher Education was established by the Minister for Education and Skills in 2014 *'to identify and consider issues related to the long term sustainable funding of higher education in Ireland and to identify funding options for the future'*. Its central recommendation is that Ireland needs to substantially increase the level of investment in higher education to ensure that the system is able to deliver fully on its role in supporting our national economic and social development. This investment must be linked to enhanced quality and verification of outcomes.

Contributions of Higher Education

Higher education has made a hugely positive contribution to Ireland's development in recent decades and has proved to be a game changer for individuals, employers, society and for the state. Its role is as important now as ever as we seek to further embed our skills infrastructure, develop our innovative capacities and create a more equal society. The Expert Group identifies four channels through which higher education contributes to these ambitions:

- **A high quality student experience** based on excellent teaching, research and scholarship across the full spectrum of humanities, social sciences and STEM disciplines;
- **Innovation and knowledge creation across the economy, society and public sector**, based on research addressing societal challenges, prosperity and human development;
- **The knowledge and capabilities of graduates** to meet the changing needs of organisations in the private, public and social sectors, while also enhancing individuals careers and well-being; and
- **Increasing access and participation** in higher education as a part of the social contract.

But these contributions are now severely threatened. Falling resources since 2008, a deteriorating student:staff ratio, inadequate facilities and other pressures are having a severe impact, particularly on the ability to provide high-quality undergraduate programmes. There are high non-completion rates in parts of the system, pressure on students and families to meet the €3,000 fee and living expenses and a risk of a social class gradient at post-graduate level. Combined with this, the sector is facing increasing demand as the numbers of school leavers grow and lifelong learning expands.

Ireland—as a society, a state and an economy that aspires to global competitiveness, high employment, social inclusion and quality public services—must address these pressures.

Guiding Principles

Five guiding principles should be taken into account in developing a new funding system:

- A system perspective: sustainability, certainty and simplicity;
- National ambition: high quality education outcomes supporting national development;
- Quality: in student experience, qualifications, learner outcomes and competences across a broad spread of disciplines;
- Access, participation and progression: among all socio-economic groups; and
- Fairness and balance: between the public and private benefits of higher education, between investment and cost containment and between those with different levels of family income

Investment in National Ambition

A significant increase in investment is needed to create the kind of engaged, small-group, high-trust, high-expectation teaching and learning necessary for the next phase of Ireland's economic, social and cultural development. Countries at similar levels of development—with whom we compete in the development of capabilities, innovation, inward investment and public services—devote more attention and resources to ensuring high-quality education that is free at the point of access to students from a range of social backgrounds.

The status quo, or incremental adjustment to it, will not be sufficient. The reasons are threefold: the scale of the existing resource deficit; the funding implications of strong demographic growth; and, the difficulties families face in paying the current €3,000 fee and high living costs. It is an illusion to think that the funding problem could be addressed by further efficiencies, use of information technology or a cap on numbers.

The Expert Group recommends an increase in investment targeted in three areas. This funding can be delivered on a phased basis over the next 15 years, but the urgent need to restore and enhance quality means that the annual increase in funding needs to be higher in the next three to five years.

- **Core Funding:** Additional annual funding of €600 million by 2021 and €1 billion by 2030 to deliver higher quality outcomes and provide for increased demographics. This will allow an improvement in student:staff ratios, better engagement with students, and improved support services for teachers and students. This will underpin the quality of teaching and learning, the relevance of graduates' competences and abilities and improve completion rates.
- **Capital Funding:** A capital investment programme of €5.5 billion is needed over the next 15 years to sufficiently cater for increased student numbers, capital upgrades, health and safety issues, equipment renewal and ongoing maintenance.
- **Student Support:** An additional €100 million is needed to deliver a more effective system of student financial aid.

The funding stream that the Group maintain is necessary can essentially only be derived from three sources: the exchequer, the student or the student's family, and enterprise and employers. The Group is clear that employers are a key stakeholder and beneficiary and the case for a financial contribution is strong. The share of the remaining burden between the student and the State is of course a matter of much debate and the options presented reflect this.

Three Funding Options for Consideration

The Expert Group studied the spectrum of funding approaches used in other countries—Norway, The Netherlands, Australia, England and the US—and identified the main models and characteristics of each system. Based on this and the guiding principles, three funding options are recommended for consideration. All are designed to meet the ambition set out above.

Funding Option One: A predominantly state-funded system

Under funding Option One the state would significantly increase its core grant to institutions and the €3,000 undergraduate student contribution would be abolished. Higher education would be free at the point of entry for all first-time EU students and for part-time learners. There is also the possibility of extending free tuition to postgraduate education.

Funding Option Two: Increased state funding with continuing student fees

Funding Option Two would see a considerable increase in state funding with retention of the current upfront undergraduate contribution of €3,000 and continuing fees for postgraduates. Fee waivers would continue under the student grant system, and should potentially be expanded to ease the burden on some income groups. As in the other options, part-time students would be funded in the same manner as full time students.

Funding Option Three: Increased state-funding with deferred payment of fees through income contingent loans

Option Three centres around the abolition of the existing upfront fees for both undergraduates and postgraduates, and their replacement with a system of income contingent loans provided by the state. Higher education would be free at the point of entry for all students. Repayment of loans would only commence once a graduate's earnings reach a threshold level and would be set at a defined percentage of annual income, collected through the revenue system. Those whose earnings do not reach the threshold would make no repayments. Increased state funding will still be required, and any increases in fee levels must not be offset by reductions in state funding.

Greater Contribution from Employers

Employers are major beneficiaries of the outcomes of higher education, particularly given the high proportion of graduates in the Irish workforce. The Expert Group strongly recommends the introduction of a structured contribution from employers as a core element of future funding for higher education. This should be delivered by increasing the National Training Fund levy. The funding should be used to support programmes in areas of skills demand and flexibly-delivered programmes and can also act as a catalyst for greater engagement between academia and employers.

Enhance Student Supports

The costs associated with going to college—both direct costs and the opportunity cost of not working—are significant and can prevent engagement in higher education. The current system of income supports goes some way to meeting these costs, but is not sufficient. Some students are having to rely excessively on part time work, commute long distances or turn to commercial lenders. Supports for part time and postgraduate students are very limited.

A new funding model must involve a more holistic treatment of all learners – full time, part time, undergraduate and postgraduate. Increases in funding for higher education institutions must be matched by improvements in the student support system. This should include an increase in the value of payments, particularly for the lowest income groups, the introduction of a capital assets test, and an extension of supports to part-time and postgraduate students.

Perceived Strengths and Weaknesses of Each Funding Option

To guide deliberation, the Expert Group identifies some of the perceived strengths and weaknesses of each of the three funding options. It is important that they be considered together, since it is their *relative* advantages and disadvantages that are relevant. Every funding instrument has a tangible negative aspect—taxes, fees or student debt repayments or a combination of these. It is not realistic to cite the negative character of any one instrument in isolation—as if there were a way of funding higher education that did not draw resources from some source.

All three options involve a significant increase in the *level* of state funding. As regards the overall *balance* of funding, there could be some change from the current state contribution of 64 per cent. Under Option One the state contribution would be around 80 per cent. Under Option Two approximately 72 per cent. Option Three implies a state contribution between 55 and 60 per cent.

Funding Option One would make higher education free at the point of access and addresses the tendency of individuals to under-invest in developing their capabilities. The option is straight-forward and, provided state funding is on the scale necessary, it could meet national ambition and support access and participation. But, for some this option would take insufficient account of the private benefits which accrue to those with higher education and, in consequence, would be unfair to citizens who do not receive a higher education. The scale of additional state funding required for this option, especially in earlier years, must also be considered.

Funding Option Two will appeal to those who see the existing undergraduate and postgraduate fees as an appropriate way to balance the public and private benefits. It is familiar and relatively simple. Higher education would not be free at the point of entry. The main reservations would be on grounds of fairness: the difficulties people face in paying the €3,000 fee; the fairness of the fee waiver system based on parental income at the point of enrolment, under which some with significant assets receive support; and the potential barrier of post-graduate fees for many students. Significant additional state funding would be required.

Funding Option Three, in which upfront fees are replaced by student loans, may be seen to reflect better the balance of public and private benefits. Higher education would be free at the point of entry for all students. Taking a life-course perspective, some will highlight the fact that a student's contribution would reflect their lifetime earnings, and see this as more fair and progressive than the current system of fees and means-tested fee waivers based on family circumstance at a given point in time. Others, focusing on the impact of such a reform on those who currently qualify for free fees may view it as an unfair change and there may be reservations in relation to possible debt aversion among some income groups. The possible implications of a loan scheme for the public finances is a relevant consideration; the Expert Group believes that it can be consistent with the EU fiscal rules. If Option Three is chosen, a group should be established to design the parameters of a scheme of income contingent loans.

Creating a Virtuous Circle of Investment, Quality and Verification

Linking increased funding with enhanced quality and verification of outcomes will be important in building a wide consensus for reform. If stakeholders are assured that extra resources are, indeed, yielding enhanced scholarship, a higher quality student experience, better learning outcomes, wider access and broader innovation goals, this will support Irish higher education reaching a new level of ambition. We recommend the following actions to create this virtuous circle:

- **Actions to Ensure Investment is Used Effectively:** This will include additional regulation of course costs and improvements to the performance management framework and funding allocation mechanisms;
- **Quality of higher education programmes:** This means an enhanced focus on improving the quality of programmes, engagement with students and learning outcomes; and, on the development of a more responsive and flexible post-secondary level system; and,
- **Verification of outcomes and support for the front-line:** This focuses on more fine-grained specification and measurement of learning, competences attained and other outcomes and greater support for front line academic units, staff and students in monitoring and improving learning.

Chapter 1

Introduction

1.1 Work of the Expert Group

The Expert Group on Future Funding for Higher Education was established by the Minister for Education and Skills in 2014 'to identify and consider issues related to the long term sustainable funding of higher education in Ireland and to identify funding options for the future'. The broad context in which the Minister sought advice on this question is shaped by three strong trends:

- Increasing numbers in higher education and further significant increases over the coming decade and a half due to projected increase in the school leaver population;
- Significantly reduced state funding since the onset of the crisis in 2008; and
- Sharply increased student contributions or fees, which now amount to €3,000 per student per year.

The Group has engaged in three phases of work, and undertaken extensive consultation with a wide range of stakeholders on each phase¹:

- **Phase I: The Value and Role of Higher Education:** The first phase sought to achieve a shared understanding of the contribution that higher education can make to Ireland's next phase of economic, social and cultural development.

Four critical channels through which higher education contributes were identified: a high quality student experience, support for an increasingly dynamic and open innovation system, qualifications and skills to meet the needs of organisations in the private, public and social sectors, and further widening of participation as a driver of social mobility. This phase established that the future funding model must be designed to protect and enhance these attributes and contributions of higher education.

- **Phase II: Efficiency and Organisation:** The second phase examined the use of resources and organisational structures within the higher education sector. This focused on a broad range of areas including: organisation and management structures, the scale and use of human and financial resources, the adoption of new information technologies, and the wider system-level mechanisms created in recent years and the future direction of such reforms.
- **Phase III: Funding System:** The third phase of the Group's work involved a consideration of the future funding requirements of the sector and the case for reform of the funding model. It considered both the system of funding support for higher education institutions and the system of financial supports for students. To assist its work in this area the Expert Group commissioned a review of international approaches to funding higher education by Bahram Bekhradnia, of the Oxford-based HEPI institute². It also commissioned qualitative focus group research on attitudes to higher education in Ireland³.

The work of the group has clarified that there is a considerable funding challenge facing the higher education system. The current arrangements are simply not fit for purpose. Significant investment and reform is required. The challenge cannot be addressed by minor tweaks or easy fixes. It is important to identify these at the outset because they can undermine discussion of the true funding challenge and consideration of funding options.

¹ A Consultation Paper was published for each Phase - <http://www.education.ie/en/The-Education-System/Higher-Education/>

² Funding Higher Education in Ireland—Lessons from International Experience, Bahram Bekhradnia 2015

³ Attitudes to Higher Education, Amárach Research 2015

One perception is that new information technology can reduce the cost of teaching and learning to such an extent that quality education could be delivered to an increasing number of students from within existing resources. Information technology has a critical role to play in the future of higher education but it is not a quick fix to the funding problem. The new technologies do provide opportunities to improve quality, increase accessibility especially for part-time and non-traditional learners, and in improving retention. It is also evident that technology is already more embedded in attendance-based courses across the sector than is widely understood. However, information technologies are not a replacement for direct engagement with students and are not cheap. Investment in the development of digital capacity is required and ongoing running costs must not be underestimated. Online courses are no less time intensive to prepare than conventional programmes and require significant input from academics and technologists.

A second perception is the notion that further increases in efficiency within higher education—which are essential and must be the focus of continuing and enhanced efforts—could, in themselves, address the funding problem. A third mistaken idea is that a cap on numbers entering higher education offers a solution to the funding problem. Even if this could be easily achieved it would simply pose the question of how Ireland, as a society, proposes to develop the capabilities of young people after school age, and how it will meet the evolving skills requirement in the Irish economy.

Perhaps more worrying than these ideas, is the suggestion that there is no real need for a reform of the funding system, merely a return to a gradual increase in state funding and, perhaps, a marginal change in the student contribution or fee. While the detailed content of this report shows this to be mistaken, it is important to summarise the reasons here.

The argument for a slightly improved version of the existing funding system ignores most of the central facts that have surfaced during the work of the Expert Group. As noted in Chapter 2, it greatly underestimates (a) the scale of the existing resource deficit in Irish higher education, when placed in the context of the advanced countries that Ireland, correctly, compares itself with and (b) future demographic growth. Furthermore, to see a slightly improved version of the existing funding model as a viable option is to assume that the current student fee of €3,000 is paid without difficulty by Irish families and is an appropriate and fair form of student contribution.

The argument for the status quo also takes at face value Ireland's undoubted achievement in increasing access of students from lower socio-economic and other under-represented groups to higher education. In doing so it glosses over the difficulties that many students face in participating actively in their higher education, the poor progression rates in parts of the system, and the lack of supports for postgraduate and part-time students. It assumes that the current supports to students from low-income households—based on assessment of parental income at a given moment—is the most effective and fair way of making higher education widely available. It focuses only on mainstream full-time students, ignoring the need for a more effective approach to lifelong learning which would support learners in accessing higher education at various stages of their lives.

Most of all, and underlying all these assumptions, this view ignores the severe pressure on the size of classes, the quality of programmes, engagement and learning outcomes created by the current funding system. Consequently, it does not recognise that when quality is compromised so are most of the other benefits of higher education - the quality of available skills, capacity to address grand societal challenges, access and social mobility, personal development and employment prospects. A return to gradual, marginal, increases in state funding will not be sufficient to create the kind of engaged, small-group, high-trust, high-expectation teaching and learning that underpins quality.

For these reasons, and as elaborated in later chapters, the Expert Group believes that wider reform of the funding system is necessary. This must encompass a holistic approach which examines both aspects of the funding model together i.e. the funding of higher education institutions and the student support system.

1.2 Policy Context

The focus of the Expert Group is primarily on the funding system and the need for a significantly higher level of investment. But, the Group is of the view that the evolving national policy context and system of performance management has an important role in both building wide support for enhanced funding and in making a new funding model effective in meeting the goals set out above. Moreover, the funding arrangements proposed must reflect and be supportive of this broad policy framework.

The work of the Expert Group has taken place at a time when many elements of the higher education system have been reconfigured and important work is continuing. Among the reforms and processes put in place are:

- The National Strategy for Higher Education to 2030;
- The Higher Education System Performance Framework 2014–16;
- The adoption of a new National Access Plan and evolving approaches to access;
- The establishment of the National Forum for the Enhancement of Teaching and Learning and complementary supports in improving quality;
- Increased focus on the transition from school system and broader entry routes;
- A restructured institutional landscape and a move towards regional structures; and
- Wider public sector reforms of recent years.

The 2011 National Strategy for Higher Education provided a blueprint for a new chapter of reform in Irish higher education with the overarching aim of 'developing a coherent set of higher education institutions, each of significant strength, scale and capacity and with complementary and diverse missions that together meet individual, enterprise and societal needs'. That Strategy set in motion two major change processes in higher education. The first relates to institutional architecture where there is consolidation underway, particularly in the teacher education and technological sectors, and new structures for engendering deeper levels of collaboration, specifically at regional level through new regional clusters of institutions. The second relates to the relationship between the state and higher education institutions and which has led to the development for the first time of a set of national objectives for higher education

and negotiated performance contracts between the HEA and higher education institutions. Both processes seek to enhance overall performance of the system through developing greater coherence and cooperation while at the same time protecting diversity. Institutional autonomy remains a core tenet of national policy, complemented by appropriate levels of accountability and new incentive mechanisms to drive national objectives.

In addition, important ongoing strategic reform processes across the broader post-secondary level landscape include:

- The publication of the new national skills strategy, *Ireland’s National Skills Strategy 2025*;
- The work of Solas in reconfiguring the system of further education and training and expanding the range of apprenticeship provision; and
- The adoption of a new research and development strategy, *Innovation 2020*.

Finally, it is also worth noting that the funding of higher education is a live topic of debate in many countries across the globe as numbers participating have grown and systems have moved from being relatively elite to an established and integral part of many people’s education experience.

1.3 Structure of the Report

The remainder of the report is structured as follows:

CHAPTER 2:	CHAPTER 3:	CHAPTER 4:	CHAPTER 5:	CHAPTER 6:
The Case for Investment	Guiding Principles	The Spectrum of International Funding Arrangements	Enhanced Investment and Funding Options	Creating a Virtuous Circle of Investment, Quality and Verification

Chapter 2

The Case for Investment

This chapter seeks to identify the nature, purpose and scale of higher education in Ireland in the coming decades. This is necessary both to design a reformed funding system and to build a societal consensus on the need for high-quality education, with wide participation, funded in a sustainable, balanced and fair way.

Higher education has made a major contribution to Ireland's economic, social and cultural development over the past five decades—a contribution that is widely recognised. This chapter provides an overview of this contribution and it argues that the key now is to understand the ways in which higher education makes such a contribution. This is critical in judging whether it can continue to contribute to economic, social and cultural life and in exploring how we can ensure that it does.

Four channels through which higher education has made a major contribution to Irish development have been identified: quality student experience, innovation and knowledge creation, competences attained and the associated employment outcomes, and widening access and participation across Irish society. But, because of a variety of pressures on institutions and students, the contribution of higher education is now threatened.

2.1 The Contribution of Higher Education to Prosperity, Society, Culture and Public Life

In its analysis and consultations the Expert Group has identified the many contributions of higher education to Irish prosperity, society, culture and public life. These were discussed in detail in the Group's first consultation paper and are briefly outlined here.

The expansion of higher education in Ireland is widely regarded as one of the key factors that enabled the Irish economy to grow strongly in the decades since the 1950s. It has made a hugely positive contribution to our development into a modern economy and society and has proved to be a game changer for individuals, for society and for the state. It is important to recognise that through much of that period it was enhanced and expanded undergraduate education that underpinned this development.

The figures speak for themselves. The numbers entering higher education grew from 15,000 in 1980 to 42,500 in 2014. The participation rate for 18-20 year olds has grown from 20 per cent in 1980 to a current level of 58 per cent. 41 per cent of people in Ireland now have a higher education qualification, and this is even higher among younger adults with over half of 25-34 year olds having completed higher education.⁴

⁴ OECD Education at a Glance, 2015 Table A.1.3a

The increased supply of graduates and the quality of their education has been felt across the spectrum of multinational and indigenous companies. Over 45 per cent of the labour force now has a higher education qualification, where their knowledge and capabilities enhance productivity. Research and innovation helps underpin prosperity by supporting how we address the complex economic, technical, social and environmental challenges that are now widespread. In addition, higher education institutions have become important engines of local and regional development.

Higher education has generated strong returns on investment. The state has earned a high return through higher tax contributions and lower calls on welfare benefits of graduates. Graduates themselves experience higher life-time earnings and better employment prospects⁵.

Benefits have not been confined to the enterprise sector. Graduates have made major contributions to social and economic development as skilled professionals in the public sector, in NGOs and as self-employed professionals. The availability and quality of graduates has been instrumental in enabling health, education, public administration and other services to grow in line with demand and, in many instances, to improve qualitatively.

Moreover, the expansion of higher education has enhanced social mobility through providing equality of opportunity. It provides graduates with skills for life and leads to better social and wellbeing outcomes and increased civic engagement. Higher education is widely viewed as having a critical role in enriching Ireland's cultural life, nurturing our understanding of our own national identity and that of other cultures and belief systems. Increasingly, higher education is viewed as a key tool in combating social exclusion and marginalization.

Contributions of Higher Education

Economic growth & prosperity

Economic development

High Quality Jobs and Enterprises

Vibrant regions

Individual returns

Social Development

Stronger public finances

Quality public services

Mobility & greater equality

Tackling societal challenges

Culture and Civic Engagement

Creative practices

Civic and democratic life

Understanding Cultures

⁵ OECD Education at a Glance, 2015 indicators A6, A7

Looking to the future, higher education will continue to be a cornerstone of our national infrastructure. Investment in the continual upgrading of human capital is necessary in order to deliver ongoing productivity gains. For an advanced, 'close-to-frontier' economy such as Ireland, investment in higher education and research is of particular importance and has been characterised as a 'first lever' of growth.⁶

As emphasised in the National Skills Strategy, Ireland's people are its greatest asset. The availability of a skilled and creative labour force will continue to act as a major draw for foreign investment, and will provide indigenous companies with the capacity to compete on an international arena. Our young population—40 per cent under the age of 30—gives us a further unique competitive advantage. While this may present funding challenges in the medium term, it is an opportunity that must be seized.

The National Skills Strategy outlines a vision for the continuing development of our skills infrastructure. This Strategy rightly highlights the imbalance that has emerged in our post-secondary level education landscape, a topic that came up time and time again in the Expert Group's consultations. The Strategy outlines a series of initiatives to enable the development of a more robust and valued further education sector, including the expansion of apprenticeships and a reform of Post Leaving Certificate (PLC) provision, and better integration of the two sectors. This is to be welcomed and will create a more comprehensive and integrated post-second level platform for delivering the skills requirements of the future. It does not, however, take away from the role higher education will play in meeting those needs—and the investment requirements of the sector arising as a result. In its latest forecasts, CEDEFOP, predicts that over half of all job opportunities in Ireland over the period to 2025 will require higher education qualifications⁷.

The Expert Group also welcomes the publication of Innovation 2020, Ireland's strategy for research and development. The Strategy points to the critical role of graduate capabilities and skills in the innovation ecosystem, and makes clear that a sustainably funded higher education system will be pivotal to the success of Innovation 2020.

As a country we have made great strides in educational attainment over recent decades and there has been exceptional intergenerational education mobility. However, this step-up has not been shared equally by all in our society and there remains significant under-representation by some groups, including those from lower-socio economic backgrounds, persons with disabilities and older adults. The variation of participation rates across Dublin postcodes is particularly evocative of the challenge—they range from 15 per cent in Dublin 15 to 99 per cent in Dublin 6. A new *National Access Plan 2015–2020* is in place and will seek to address these challenges. It is incumbent on us to ensure that anyone who wishes to participate in higher education and has the capacity to do so should not be prevented or discouraged by personal circumstances. This will require sustained and targeted investment.

2.2 Understanding the Contribution of Higher Education

In order to understand *how* higher education has made this broad contribution, and the conditions in which it could continue to do so in the coming decades, it is necessary to identify the core and evolving nature of higher education and the key channels through which it contributes to economic, social and cultural life.

Our ideas on the purpose, value or worth of higher education reflect our understanding of the society and economy which they serve. We understand society and economy to be mutually dependent, with the economy embedded within society, institutional arrangements and culture. This integrated view resists the tendency to draw a sharp line between

⁶ Growth Policy and the State, Aghion, P. 2012

⁷ Ireland: Skills forecasts up to 2025, CEDEFOP 2015

the economy and society, and between the world of man-made things and the world of ideas and values. Indeed, it is increasingly recognised that society and economy sit within, and are mutually dependent on, environment, which itself is strongly shaped by human activity. This integrated view of society, economy and ecology is the only reliable basis of a clear view of the purpose and value of higher education: higher education has value because it greatly adds to understanding of, and hence the flourishing of, our integrated social, institutional, cultural and economic life.

One important implication of the integrated view is that it contains, at its heart, a focus on both the collective good and the individual. Our idea of the public good is one that sees individual flourishing, achieved through higher education and other activities, as contributing to public life and the public good. Higher education contributes both to individual fulfilment and the collective good. This is the core idea that underpins Ireland's long-standing drive to widen access to higher education. It is also an important consideration in determining how higher education should be funded.

A further implication of this integrated view is that, in thinking about the purpose and value of higher education, we accept that means and ends are mutually determining. Higher education is a means to various ends—in society, professional practice, the public sphere and the economy. But it also an end in itself—through its pursuit of knowledge, understanding and meaning.

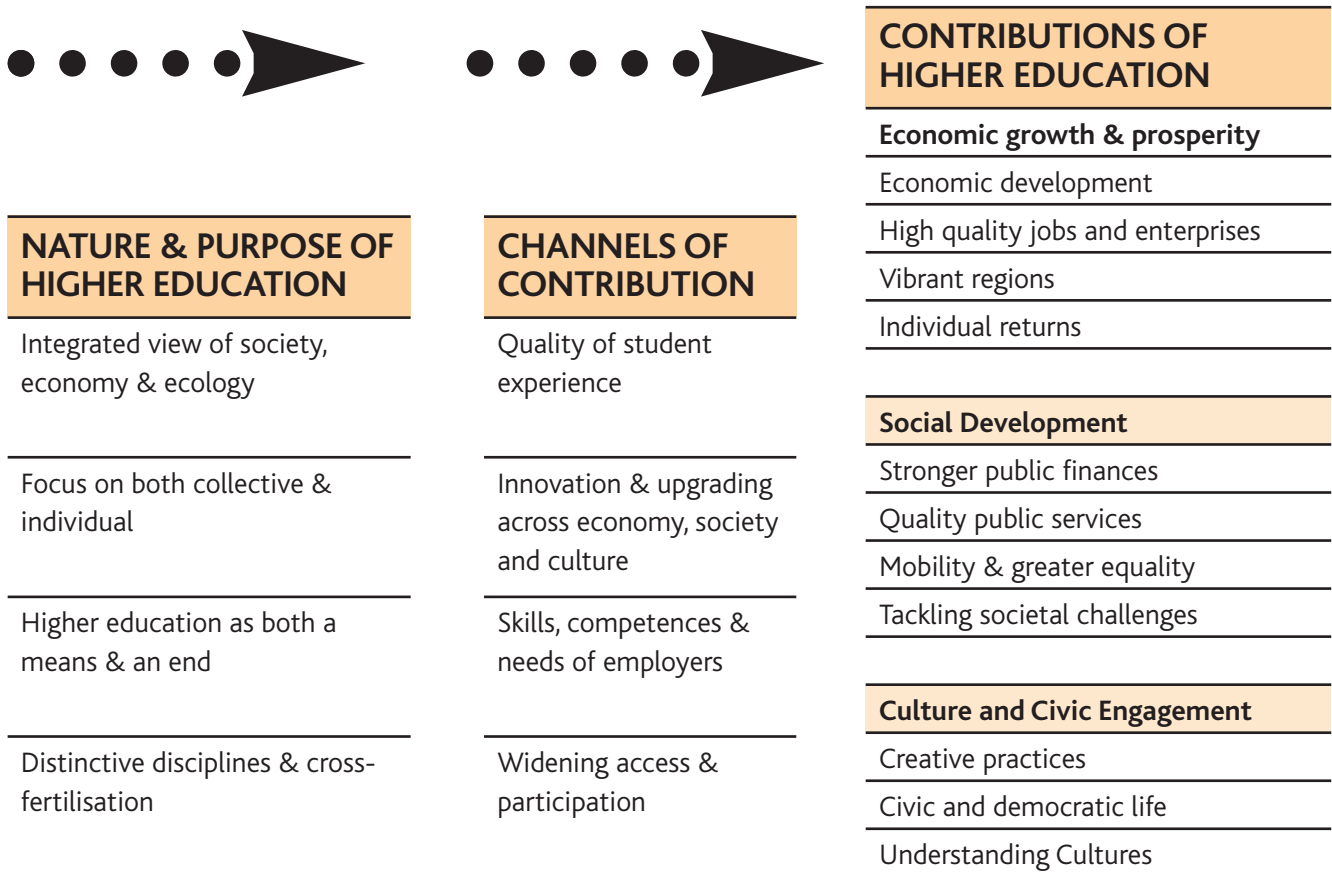
Its contribution reflects both the nature of the distinctive disciplines—arts, humanities, social sciences, science, engineering and mathematics—and increasingly the overlap and cross-fertilisation that takes place between them. The shift towards interdisciplinary approaches is reflected in current thinking on the role of higher education, innovation and research. Instead of a linear process, in which new scientific knowledge drives innovation in industry, there is increasing focus on the way four spheres—higher education institutions, business, government and civil society—overlap and interact to address the complex economic, technical, social and environmental challenges that are now widespread.

The work of the Expert Group has identified four key ways or channels through which higher education generates the positive economic, social and culture outcomes noted above.

- **A high quality student experience** is the single most important way in which higher education serves its students and the public good, populating society with those who can understand its past, engage with its present and imagine its future. This depends on high quality teaching, the active research and scholarship of academic staff across the full spectrum of humanities, social sciences and STEM disciplines and a high level of engagement with students and by students;
- **Higher education supports innovation and upgrading** in its broadest sense. This depends on the pursuit of knowledge, research and development across the full spectrum of disciplinary areas - science, technology, engineering, arts, humanities and social sciences - to address societal challenges, support prosperity and facilitate human development;
- **The knowledge and capabilities of graduates** meet the changing needs of organisations in the private, public and social sectors, while also enhancing individuals careers and well-being.
- **Increasing access and participation in higher education** plays a major role in driving social mobility and improving life outcomes and can be seen as a core part of the social contract.

Combining our identification of the contributions of higher education with our understanding of its nature and the channels through which it works, the Expert Group’s analysis, perspective and vision can be summarised in Figure 1.

Figure 1: Understanding the Contribution of Higher Education



2.3 The Contribution of Higher Education to Ireland’s Development is Now Threatened

The central finding of the Expert Group’s work and consultations is that the contribution of higher education to Ireland’s economic and social development can no longer be assumed and is, in fact, severely threatened. Core funding per student in Ireland fell by 22 per cent in the seven year period to 2015. Because of funding reductions, the increased enrolment in recent years has been funded from internal efficiencies and by other cost-cutting measures that, by and large, have been exhausted. There is a real danger that all four of the key channels identified above will no longer function well. While this arises primarily because of the limitation on resources, the funding problem is interacting with other trends in ways that need to be understood.

Our analysis and consultation with a wide range of stakeholders identified a large number of severe pressures on the higher education system and those within it.

PRESSURES EVIDENT IN IRISH HIGHER EDUCATION

Student Experience:

Reductions in core operational funding in higher education institutions have manifested primarily in a reduction in staffing. This has been exacerbated by the unfunded increase in student numbers and has led to a deterioration in the student:staff ratio which has gone from 16 students per staff member (16:1), to 20 student per staff member (20:1). This ultimately means that teachers have less time to dedicate to each student and to focus on the types of activities that are proved to have a positive impact on students' learning outcomes. Institutions and students report an increase in class sizes, reduction in smaller tutorial groups, less one-on-one contact, project work, feedback and less time to accommodate diverse learning styles. This is impacting on teachers' abilities to identify and support at-risk students. Academic staff are also under pressure to undertake a range of other activities—such as research, external engagement, fund-raising—which can distract from their core role of teaching.

Problems are equally stark on the student services side, with cuts to library hours, and central support services such as guidance and counselling. Put together, it is inevitable that this will have an impact on learning outcomes and completion rates.

Deteriorating Infrastructure:

There has been an effective pause in state investment in new buildings and very little investment in equipment and IT facilities. Facilities such as lecture halls, labs and libraries are overcrowded and of mixed quality and reducing day-to-day resources have squeezed maintenance budgets. There are reports of serious health and safety risks across the sector and institutions are having difficulties expanding course places in in-demand areas such as science and ICT due to the lack of appropriate facilities and infrastructure.

Financial Burden on Students:

There is undoubted pressures on many students and families to meet the annual 'student contribution' which has now reached €3,000, and to meet living costs while studying. This is evident in the growing recourse to borrowing to meet these costs and the increase in the level of fees outstanding to institutions.

The maintenance side of the student grant payment has been eroded in recent years with maintenance payments falling well below the actual living costs. This is leading to an increase in part-time work and students commuting for greater distances. It also creates a disincentive to participation, with persisting low rates of access for some social groups and geographic areas, and a higher propensity for non-completion. There are high non-progression rates in parts of the higher education system, particularly in the areas with a high proportion of students from low-income backgrounds. Finally, the financial support system is primarily concerned with fulltime undergraduate students. Tuition fees are in place for part-time and postgraduate students and there is limited contribution under the student grant scheme. The removal of maintenance supports for postgraduate students is of particular concern and there is a real risk that some socio-economic groups could be locked out of a range of professions such as teaching as a result.

Demand Pressures:

The numbers entering higher education will grow as a result of labour market requirements and demographic trends placing further pressures on institutional and student support budgets. The number of students completing second level will peak in 2029 and is projected to be 27 per cent higher than 2015. The majority of these students will desire to continue in education—either in further education or higher education. Places simply must be provided. The changing needs of the labour market will also demand an increase in life-long learning, part-time and more flexible higher education, which is still not sufficiently supported in the present system.

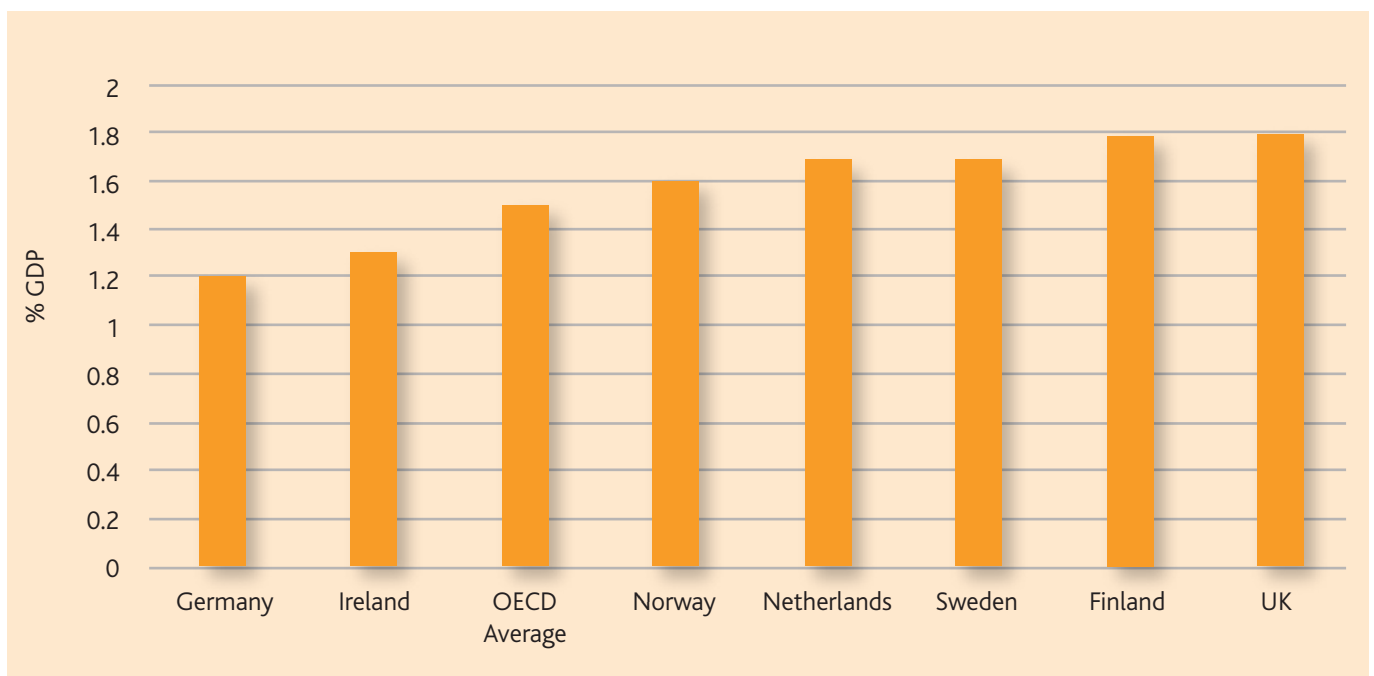
Many of these pressures are as a result of the crisis. But this is not the sole reason. There are systemic issues within the system that pre-date 2008 such as the lack of opportunities and supports for part-time learning and the low uptake of lifelong learning.

Ireland, as a society, a state and an economy that aspires to global competitiveness, high employment, social inclusion and quality public services, needs to urgently address these pressures. Other countries at similar levels of development—with whom we compete in the development of capabilities, innovation, inward investment and quality public services—devote more attention and resources to ensuring both high-quality education and education that is free at the point of access to students from a range of social backgrounds. This is likely to weaken Ireland's relative ability to undertake high-value innovative activities across the economy and society, but also to put Irish young people at a disadvantage in competing for the opportunities that do arise.

The underinvestment in higher education is evident in internationally comparable data on the level of resources dedicated to higher education and the student-staff ratio in higher education systems.

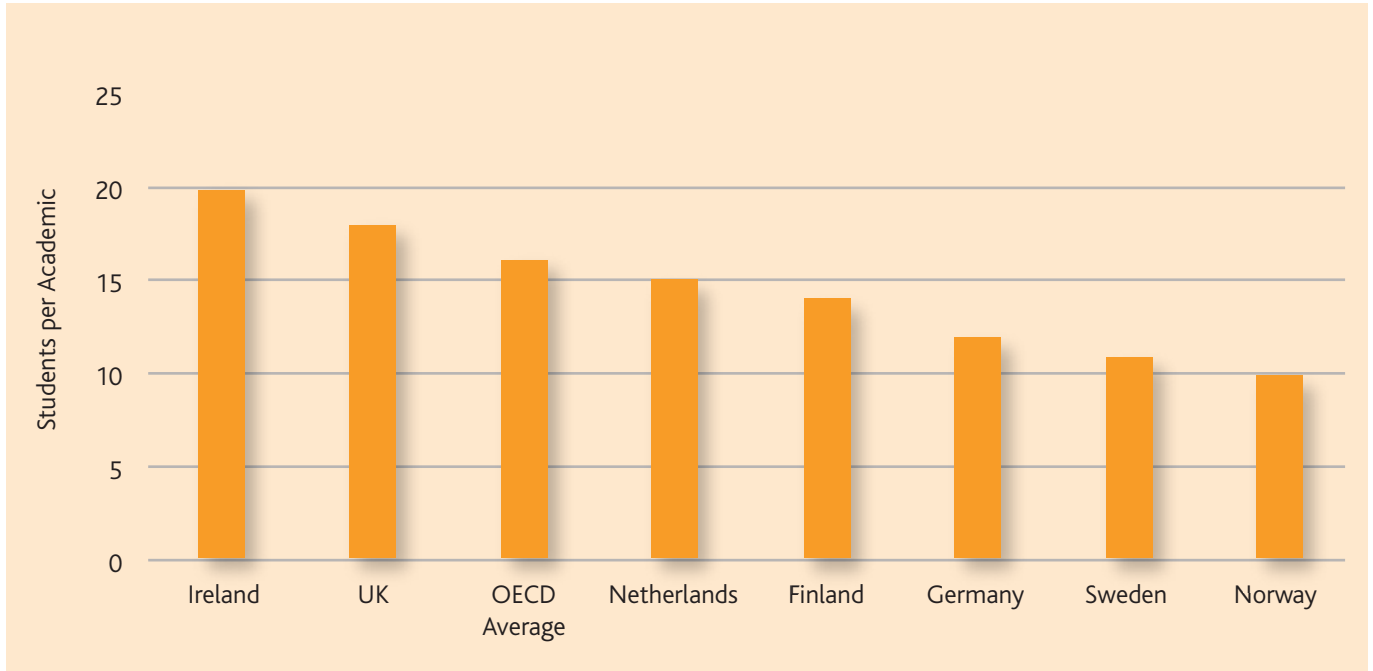
Figure 2 shows the level of expenditure (public and private) on higher education as a proportion of GDP for a selected group of countries, with Ireland lagging behind those countries we seek to emulate.

Figure 2: Expenditure on Higher Education as % GDP



Source: OECD Education At A Glance 2015, Table B2.1 (2012 data)

Figure 3 shows the ratio of students to academic staff. While the deteriorating ratio of academic staff to students is a crude indicator, it becomes telling if it results in less supervision of project work, less one-to-one engagement, less feedback and less time to accommodate diverse learning styles.

Figure 3: Ratio of Students to Academic Staff

Source: OCED Education At A Glance 2015, Table D2.2 (2013 data)

Moving towards the levels of investment evident in countries like Norway, Sweden and the Netherlands is the central funding challenge facing Ireland and its system of higher education. To move in this direction there must be a significant and sustained increase in the funding available for higher education.

In addition, as noted above and discussed further below, there are also pressures in the system of supports available to students which also need to be considered in the context of the funding of the overall higher education system. As well as finding ways to increase the core funding of higher education, Irish policy needs to improve the maintenance supports and bring part-time and postgraduate learners within an enhanced funding system.

2.4 Linking Investment, Quality and Verification

The many pressures in Irish higher education and the threats to its contribution to the Irish economy and society, noted above, arise primarily from the limitation of resources, combined with the ongoing increase in student numbers. Consequently, as is made clear from the start of this report, there is need for a significant and sustained increase in resources.

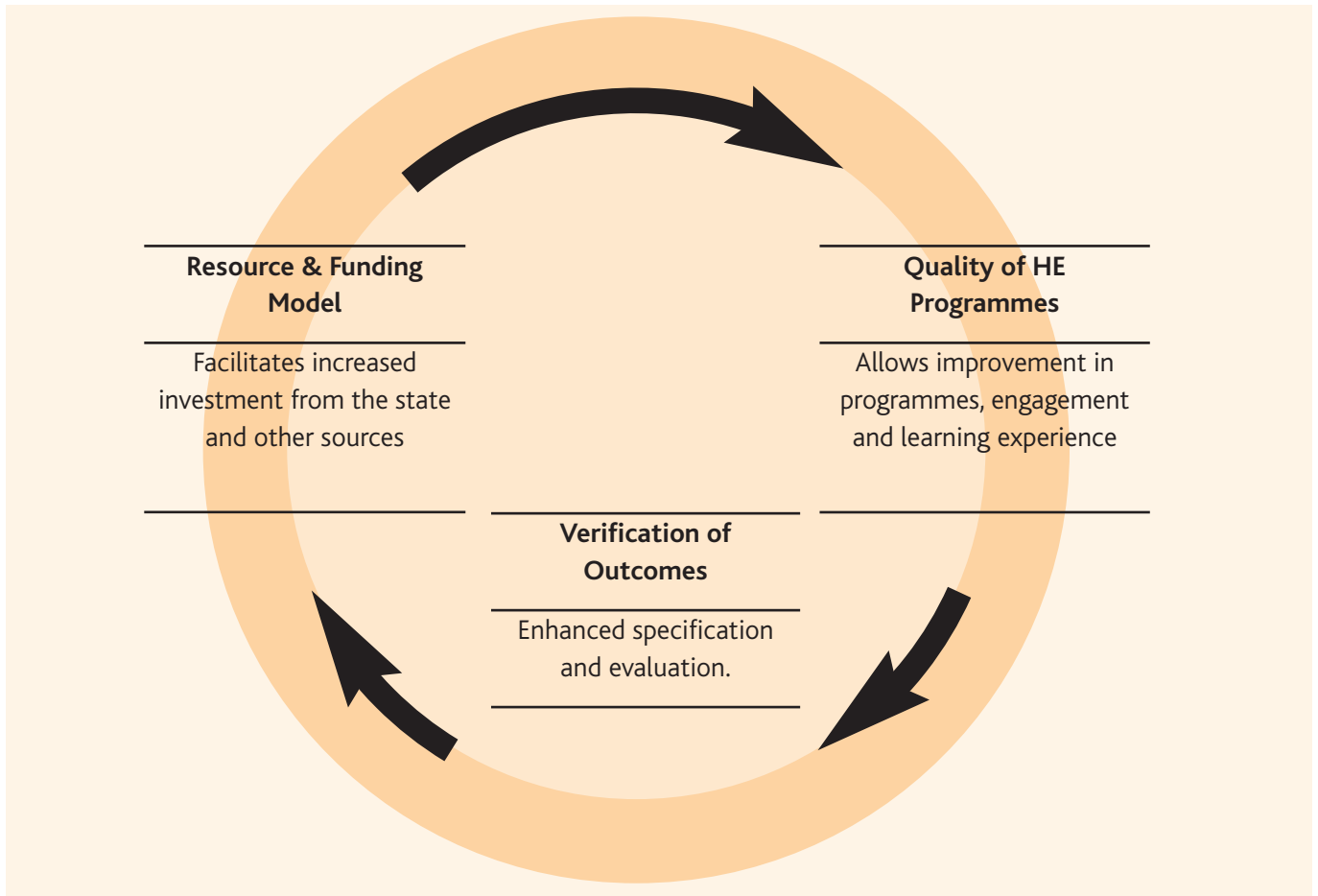
However, the Expert Group believes that to achieve a strong increase in resources, and to make it truly effective in delivering its potential benefits, will require complementary developments in two related areas. Increased resources needs to be combined with actions that improve quality and enhance the effectiveness of the system and deliver a renewed and deeper focus on the impacts and outcomes achieved. These requirements are outlined in detail in Chapter 6 but are summarised here as it is important that the need for complementary reform developments is understood at the outset.

To create a higher education system where investment, quality and verification are mutually supportive requires:

- Progressively increasing total resources—current and capital funding for institutions and student supports—and adjusting them in response to overall progress and outcomes;
- An enhanced focus on quality and engagement in teaching and learning in a system of higher education which is more responsive to the changing and diverse needs of learners, society and the economy;
- Enhanced specification, measurement, evaluation and communication of learning, competences attained and other outcomes;

While the central focus is naturally on the lack of resources in higher education, only with the second and third elements will it be possible to generate positive feedback mechanisms which make it more feasible to deliver ambitious funding levels (see Figure 4).

Figure 4: Linking Investment, Quality and Verification



This will support the development of a wide consensus for increased and reformed funding. It is needed to assure a range of stakeholders that extra resources will, indeed, yield enhanced scholarship, a higher quality of student experience, better learning outcomes, attainment of key competences, innovation and a genuine widening of the benefits of higher education across Irish society. The more the goals of students, families, employers and the state are transparently being delivered, the more they will each see that their investment is worthwhile and the more compelling the case for investment.

Chapter 3

Guiding Principles

Consideration of the nature of the funding challenge and the design of a reformed system needs to be informed by a number of guiding principles. Here we outline five principles that the Expert Group identified during its work and which should, in its view, be taken into account by government and other stakeholders in discussion and design of a new funding system:

- A system perspective
- National ambition
- Quality
- Access, participation and progression
- Fairness and balance

We outline these principles here, and bring them to bear in considering the spectrum of international approaches (Chapter 4) and in identifying the funding options available to Ireland (Chapter 5). As with all principles, none of these are absolute and practical application requires a balance to be struck between them.

3.1 A System Perspective: Sustainability, Certainty and Simplicity

In reforming the funding model it is important to take a system perspective, rather than focusing in a partial way on the budgets of the higher education institutions, the affordability and cost to particular groups of students or the public finance dimension. Although all these are valid viewpoints, an effective and fair system must be sustainable and serve the overall national interest and ambition.

A system perspective requires joint consideration of the implications and interactions of all the main sources and types of funding—for education, scholarship, research and societal engagement. A further implication of a system perspective is that the funding system must address not only the current resources, but also the need for capital investment and strategic projects. Extending beyond the higher education system, the funding model must take account of the broader post-secondary level system and be consistent with and supportive of the National Skills Strategy.

The reformed funding system must provide a high degree of certainty and consistency to each of the main stakeholders. Students and families need certainty about not only the enrolment cost, but also how they will meet the costs of participation and completion. The staff designing and delivering programmes, and the higher education institutions in which they work, need limited volatility in the resources they have available to plan and deliver high-quality programmes. A reformed funding system must also provide the state with reasonable certainty on the short-term and long-term costs of an improving and expanding higher education system; and reliable information on the learning outcomes and competences that are being achieved.

In addition, the funding system must be attuned to incentives and the factors that shape the demand for higher education and its supply.

Finally, the funding system must be relatively simple, easy to explain and have a high degree of administrative simplicity and efficiency. International experience underlines this principle and the high cost that is paid for having overly-complex funding provisions and elaborate, bureaucratic administrative systems.

3.2 National Ambition

The system of funding must be sufficient to allow higher education to support the national ambition: high quality student experiences across all disciplines and qualifications and learning outcomes equal to those in the advanced countries that Ireland compares itself with, a stronger role in a dynamic open innovation system, a greater focus on life-long learning to meet the needs of employers in the private, public and social sectors and wide access and participation. This implies that the new funding system must be capable not only of restoring the reduction of resources experienced since the onset of the crisis, but must create mechanisms that are capable of taking Irish higher education to a new level.

In the dynamic interaction between higher education and society the available resources will evolve and will be influenced by the degree to which higher education delivers for individuals, society, enterprise and public governance. This is the dynamic link between investment, quality and verification which we see as central to addressing the funding challenge.

To meet our national ambition, the funding system should enable higher education to serve society in the full range of ways identified in Chapter 2 and discussed in more detail in the first Consultation Paper issued by the Expert Group. The full benefits of higher education must be accessible to a wide base of enterprises, community and voluntary organisations, the public sector and to all socio-economic groups. This has implications for the degree of engagement between higher education—in both its research and teaching roles—and a range of partners in business, community and voluntary activity and public bodies.

Finally, it is important to note that there is no entirely scientific way of determining how much of national income to spend on higher education and how much to borrow for investment in the sector. But a developmental perspective would suggest that it is possible to spend either too little or too much. Given the evidence summarised in Chapter 2, the Expert Group is clear that Ireland is now significantly under resourcing and underinvesting. Consequently, one of the challenges is to devise a funding system that is capable of progressively increasing total resources and adjusting them in response to overall progress and outcomes. This becomes one criterion in assessing funding models, since some funding systems may be better able to deliver this than others.

3.3 Quality in student experience, qualifications and competences

Quality, across a full breadth of higher education activities, must be a key guiding principle in reforming the funding system. Quality is what is most compromised and threatened in the existing funding system. The reformed funding system must address the key determinants of quality and thereby create the kind of positive dynamic or virtuous circle sketched in Chapter 2. In particular, the quality of the undergraduate learning experience, competences and qualifications must be enhanced. First it must support scholarship across a broad spread of disciplines in STEM areas, the humanities and social sciences. Such scholarship—as well as yielding knowledge of economic, social and cultural value—is a critical foundation for high-quality teaching and learning.

Second, to build on that foundation requires a high level of engagement with students and a high level of engagement by students in their programmes. To deliver this level of engagement front-line teaching staff require significant administrative and other supports.

Finally the increase in the number and diversity of students in both higher and further education, and need for more pathways between them, requires more fine-grained specification and measurement of learning outcomes. To be sure that the increased access of students from a wide range of backgrounds is becoming a genuine widening of participation in quality higher education, requires greater verification of levels of engagement and learning outcomes.

3.4 Access, Participation and Progression

A key guiding principle of relevance to both the organisation and funding of higher education is access, participation and progression among all socio-economic groups. There are both efficiency and equity reasons for public policy to support access to higher education of students whose family or other circumstances prevent them accessing learning from which they have the ability to benefit. This has been a central element of Irish education policy for some decades, and one on which there has been considerable success. National and international experience underlines the degree to which widening of access involves effective measures at various stages: in promoting attainment and awareness in school, in meeting the cost of enrolment, in supporting student engagement and progress and making it possible for students and their families to meet living costs while in college.

As outlined above the resource pressures within the higher education institutions are starkly visible. But, several of the pressures identified are ones that bear on students and their families, and they relate not only to payment of the student contribution, but also the cost of living while studying and the challenges of participating fully.

Ireland's 'access' agenda must now be reframed as a commitment to access, participation and completion as envisaged in the new *National Access Plan 2015–2019*. The more success a country has in widening 'access', the more the agenda widens from getting students from diverse background *into* higher education, to a more mainstream one of ensuring that *all students* are deeply engaged in their education and achieve strong learning outcomes.

One way of delivering on this commitment is to make higher education free at the point access. Indeed, in the context of the wider principles adopted here, *free at the point of access* is seen by some as a significant criterion in judging how different funding schemes conform with the principle of access and participation, as well as the principle of fairness (see below).

This wide perspective on the access agenda has a number of general implications that are reflected in the arguments advanced below. One is that funding and other measures to promote access and participation must also encompass part-time, adult and taught post-graduate education. Another is that the funding system must be supportive of more effective pathways between further and higher education.

The system must be open to and supportive of all learners, not just the traditional school leavers seeking full-time provision, but also the growing proportion of new types of learners: a first generation in many families from under-represented regions and socio economic groups; those already in the workforce, and adults outside of the education system looking to further their education and skills. This continuing evolution in the diversity of learners is further emphasised in the new National Access Plan which sets ambitious targets for growth of part-time learners, mature learners, and learners from lower socio-economic backgrounds. It is imperative that these ambitions are realised to both ensure the availability of capabilities and skills and talent across the economy, and to provide everyone with the opportunity to reach their full potential.

3.5 Fairness and Balance

The final guiding principle is fairness and balance, which also has a number of dimensions and implications.

The funding system must reflect the balance between the public, private and enterprise benefits of higher education. It is widely accepted that higher education yields a combination of public returns, to society at large and to the state, and private benefits (such as higher incomes) to those with good higher education qualifications and to the organisations that employ graduates. Most accept that it is not possible to calculate the exact balance between these and not possible to create quasi-markets that would somehow reveal the exact value of each element. But the principle of fairness and balance, in combination with the other principles and international experience, suggest that in designing a funding system it is appropriate to take account of the distribution of the costs and benefits of higher education across the relevant stakeholders: the state, graduates and employers.

While it may not be sensible to specify an exact or rigid proportionality between all three sources, or to derive the whole funding system from that, the proportions are nevertheless important and do need to be a focus of policy discussion and decision. They are indicators of fairness or of imbalance in how the funding model reflects patterns of public and private benefits and of its alignment with broader policy objectives. Once having decided on the proportions of overall system funding that should be met by government, students/graduates or employers the focus then needs to be on how most effectively these funds should be provided and allocated and how most effectively each set of stakeholders can contribute their share. The state funding proportion will include not just direct grants to colleges, but also any state supports to students to help them pay their fees and to assist with their living costs, whether these supports are provided as student grants or in the form of other subsidies.

Clearly the principle of fairness relates closely to the principle of access, participation and progression. People are increasingly taking an encompassing life-course perspective on access, equality and fairness in higher education. There is a need to be attentive to fairness in a wide sense which considers not just family income at a given point in time but also:

- how various families meet the initial costs of enrolment;
- non-progression by significant numbers of students;
- the high variation in post-graduation earnings;
- the costs of living while a student;
- the parity of supports to all learners including part-time and postgraduate.

Chapter 4

The Spectrum of International Funding Arrangements

This chapter considers international approaches to funding higher education. It sets out the spectrum of funding models adopted in a range of advanced democracies and reports some of their perceived strengths and weaknesses.

The chapter closes by summarising the broad lessons which Irish citizens, higher education actors and policy makers might learn from the international experience.

4.1 General Lessons from International Experience

A review of international approaches to funding higher education was prepared for the Expert Group⁸. The review paper shows that higher education is structured and funded in a wide variety of ways and arrangements are highly dependent on the context and circumstances of each individual country. It demonstrates a number of key facts of relevance to Irish discussion on the future funding of higher education.

First, it shows that the state is the central actor in shaping the way in which higher education is funded, creating the framework and mechanisms through which resources are garnered and the way in which they are allocated to higher education institutions and students.

Second, it shows that these mechanisms are used to achieve different combinations of funding sources:

- direct state grants and indirect state funding
- students and/or their families
- other private sources including from employers and philanthropy.

Third, it also shows that there has been changes in the past decade or two, with many countries reducing the overall share of direct state funding and creating mechanisms by which students and graduates contribute to the funding of higher education.

Fourth, the review highlights how complex—indeed, opaque—the funding of higher education can be; even where the state has greatly reduced its direct ‘core’ funding to higher education institutions, it can provide a significant share of overall funding indirectly through, for example, its provision and guarantee of student loans. Governments or other public bodies also continue to play a major role in funding research in many countries.

Fifth, the review shows that, while resources are always limited and contested to some degree, some national systems of funding display severe problems and no longer function well to meet the needs of society and the economy.

⁸ Funding Higher Education in Ireland—Lessons from International Experience, Bahram Bekhradnia 2015

4.2 A Spectrum of Approaches

Based on the variety of international approaches outlined by Bekhradnia, the Expert Group identified a spectrum of approaches (see Table 1). This spectrum is based on the different ways in which public policy creates mechanisms to garner and deliver funding for higher education, resulting in different combinations of three sources of funding—the state, students/graduates and other private sources—and different incidence of the ultimate cost.

Column A of the table shows the model in which higher education is funded predominantly by direct state grants. In such a system, the immediate funding for higher education is provided almost entirely by the state or general taxpaying citizens, and students pay no fees. Indeed, in some cases, the state also provides students with maintenance grants that vary depending on their family income. This is broadly the approach across the EU but is particularly distinctive of arrangements in the Nordic countries.

At the other end of the spectrum lies Column E. It depicts a model, such as that in the US, in which the direct funding of higher education institutions is predominately from fees or other private sources, with the state playing a less direct, but still very significant, role. This includes the creation of a tax regime which incentivises various private contributions to higher education institutions and an element of subsidy and guarantee for a system of student loans.

Between these two options, lie a range of other hybrid models. Column B, depicting the system in the Netherlands, involves relatively high direct grants from the state combined with moderate student fees supported by a loan system. Column C shows the Australian system. Over 20 years ago the state reconfigured the system to include direct state grants, student fees supported by state-supported income contingent loans and maintenance grants for students from low-income households. Column D shows the new system in England in which the state has radically reconfigured the way both the taxpayer and others fund higher education. Direct state grants have been almost abolished and replaced by high student fees, which are, in turn, largely funded by a system of state-subsidised income contingent loans. Even maintenance grants for students from low income households are now proposed to move from direct funding by the state to such income contingent loans.

A High State Grant Funding	B High State Grant Funding	C Moderate State Grant Funding	D Low State Grant Funding	E Low State Grant Funding
No Student contribution	Moderate Student Contribution (€2,000)	Moderate to High Student Contribution (€6,000 - \$10,000) (€4,000 - €7,000)	High Student Contribution (£9,000)/((€12,000)	High Student Contribution (\$9,000/€9,000 - median)
	Income contingent loan for tuition and living costs	Income contingent loan for tuition only.	Income contingent loan for tuition and living costs	Subsidised and unsubsidised mortgage-type student loans
				High levels philanthropy (with tax incentives for individuals)
Grants and Loans for Living Expenses	Recent removal of universal grants Grants for low incomes	Grants for low incomes	Recent proposal to remove maintenance grant	Grants for low incomes
Norway	The Netherlands	Australia	England	US

In considering the future funding of Irish higher education we need to consider the full spectrum of possibilities. Each of the models have strengths but also drawbacks which need to be heeded.

4.2.1 Model A: High Direct State Funding with No Student Fee

The Nordic countries have some of the highest levels of investment per student in the world, with the vast majority of funding coming from the state. The Government meets the entire cost of education, requiring no contribution or fee from students. Indeed, it goes further, by providing student grants and loans for living expenses.

This approach, as set out in model A in Table 1, has some definite strengths. It can be supportive of small-group learning, and quality student experiences and scholarship, provided a high level of state funding is maintained. It reflects a social consensus that higher education is a key resource in building quality public and social services. It is generally supportive of access, since higher education is free at the point of use; a student's family income creates little or no barrier to accessing, participating in and completing higher education. Within the context of the Nordic model of economic and social governance, universal tax-funded provision of a range of services is seen as highly supportive of fairness. Its critics argue that full state funding of higher education takes insufficient account of the large private benefits that accrue to graduates and imposes taxes on some who have limited opportunity of accessing higher education.

This model of funding also prevails across most of the EU, although the level of funding is generally not as high as in the Nordic countries. This highlights the role that the Nordic model of taxation plays in supporting well-funded state systems. Scotland provides a particularly interesting example of an approach in which students pay no fees. It is unique in the UK in maintaining a no-fees policy, and its institutions are well regarded. Scotland also has a system of income-contingent loans to support student living costs.

4.2.2 Model B: High Direct State Funding with Low Student Contribution

Some of the strengths, contextual factors and potential weaknesses of model A are also likely to be noted in considering model B, which relies on relatively high levels of direct state grant combined with low student fees.

The Netherlands largely follows the Nordic approach and provides a high level of state funding to higher education institutions. However, it differs in that it also charges a universal fee of €2,000 to all students undertaking Bachelor and Masters programmes, supported by income-contingent loans. This is seen as recognising the private benefit accruing to graduates and provides a second source of sustainable income to institutions.

The Dutch also provide a comprehensive system of support for living costs consisting of maintenance grants and loans. Up until this year, most students received a basic grant (€1,200 - €3,360) and a further supplementary grant of €3,200 was available for those from lower-income households. Students also had access to income-contingent student loans for tuition fees (€2,000) and living costs (€3,600). A series of reforms have been introduced from the 2015/16 academic year. This entails the removal of universal basic grants, an increase in the value of the targeted supplementary grant for families with incomes of less than €46,000, and an increase in the maximum value of living costs loans. The level of tuitions fee will remain the same. The repayment terms for loans have been made more favourable to graduates. Repayment will continue to be linked to income levels, but repayments will now only start when the salary reaches the minimum wage level. Repayments will never be more than 4 per cent of income above this level, and the repayment period has been increased from 15 years to 35 years. The savings arising from this reform are being invested in enhancing

the quality of higher education provision, including smaller class sizes and greater engagement with students and enhanced grant supports for students from lower income groups.

The overall level of investment, supported by both state and student contributions, provide the capacity for high levels of quality and sustainability. While it is one of only a few countries in the EU to charge student fees, the system of income-contingent loans means that higher education is free at the point of entry (see Box 1). The recent changes to student support arrangements reflect a recognition that students from low-income families faced difficulties in meeting the costs of participation and support for this cohort has been prioritised and increased. However, the student loan scheme provides the Government with a vehicle to support all students – undergraduate and taught postgraduate - with tuition and living costs.

Box 1: Income-Contingent Loans: An Overview

Income contingent loans are a type of student loan in which repayments are fixed at a percentage of a graduate's subsequent earnings. They differ in a number of significant ways from standard mortgage-type loans in which a fixed amount must be repaid each year until the loan is fully repaid.

First, income contingent loans (ICL) are generally provided by the state (or state entity) rather than private financial enterprises, such as banks. Second, repayments are contingent on the income of graduates. Thus, they take into account adverse circumstances such as unemployment, illness or low pay. In the event that a graduate is unable to repay the loan, the state covers the default associated with inability to pay. Indeed, this is not seen as a loan default, so much as a design feature of an income contingent loan system. For this reason, individuals have a higher incentive to make an investment in their own higher education using an income contingent loan than they would have with a mortgage-type loan.

There are a number of key parameters to be set in designing an income contingent loans scheme:

- defining whether the loans cover tuition fees, maintenance costs, or both;
- the income threshold below which loans are not repaid;
- the interest rate, if any, to be charged to graduates;
- the percentage of disposable income to be repaid in any given year.

The level of monthly repayment increases with income which means that the more a graduate earns the less time he or she takes to repay.

The cost of an income contingent loan system to the state depends on the cost of public borrowing, the interest rate charged to graduates, the share of those who do not repay their loans, and the discount rate used in public accounting. The latter could be influenced by the level of graduate emigration and the extent to which repayments can be recovered from those who emigrate.

In outlining the international spectrum of funding models, this chapter provides an overview of income contingent loans in four countries: Scotland, The Netherlands, England and Australia. Further explanation of income contingent loans, and analysis of its possible application in Ireland, can be found in Chapter 5 and in Appendix 3.

4.2.3 Model C: Moderate Direct State Funding with Moderate Student Contributions Supported by Income Contingent Loans

Model C, which operates in a number of countries including Australia, relies on moderate levels of direct state grants and modest student/graduate contributions. Australian institutions receive a set amount of 'base' funding per student which comes from two sources—direct state grants and regulated student fees. The level of base funding and the balance between the state and student contribution varies dependent on discipline. Prior to 2012, the Government imposed a cap on the numbers of student places funded under this arrangement. This cap was removed in 2012 to support broader access to higher education. Tuition fees represent about 40 per cent of the base funding that universities receive, having increased from about 20 per cent in 1989.

Australia applies differentiated student fee rates in three bands:

- Band 1 courses up to \$6,256 (c. €4,000) such as humanities, social studies, education, clinical psychology, foreign languages or nursing.
- Band 2 courses up to \$8,917 (c. €6,000) and such as computing, built environment, engineering, agriculture, mathematics or science; and,
- Band 3 courses can up to \$10,440 (€7,000) and such as law, dentistry, medicine, veterinary science or accounting.

Australia was the first country in the world to introduce an income-contingent loan scheme to support tuition fees, doing so in 1989. It does not provide loans for living costs. Income contingent loans are provided through the federal government's Higher Education Loan Programme (HELP).

The largest HELP loan programme is known as HECS (Higher Education Contribution Scheme)-HELP. This provides loans for students who qualify for a government subsidised place in higher education. These loans are available to most undergraduate students and 40 per cent of postgraduate students. The second largest loan programme is known as FEE-HELP. This provides loans for higher education programmes that are not subsidised; i.e., that charge full fees. It is used by most postgraduate students and a minority of undergraduates. There is also a lifetime loan allocation under FEE-HELP that allows students to re-enter the system and retrain throughout their careers.

Loans can only be taken out for tuition fees, up to the maximum fee payable. Repayment is through the tax system. Repayments only begin when income has reached \$53,345 (€36,000), and are levied at 0 to 8 per cent of income, depending on income level. The repayment percentage applies to all income once the threshold is passed; by contrast, in the English system, discussed below, the repayment percentage is applied only to income above the repayment threshold. In Australia real interest rates are not charged on loans. However, each graduate's outstanding debt is indexed to the Consumer Price Index (CPI) in order to maintain its real value.

As mentioned above, loans are not available for living costs, but Australia operates a system of means-tested grants depending on family circumstances through the Youth Allowance scheme.

The Australian combination of direct state grants, student fees funded through income contingent loans and continued maintenance grants to low-income students is considered to have provided a relatively stable, sustainable, funding regime and a quality student experience for over 20 years. However, a decision to remove the cap on places in 2012 resulted in a significant increase in the numbers attending higher education, placing pressure on the state funding element.

The public subsidy is lower than in England for a number of reasons: tuition fees are lower, a maintenance loan is not available, and repayments are linked to full salary level once the threshold is reached. Approximately 15-20 percent of loans are not repaid, as a result of graduates failing to earn enough income and because of emigration. Reduced repayments are also available to students who take up employment in priority areas such as education, nursing, early childhood, maths and science.

The Australian system highlights the possibility of a mixed system of funding which combines state grants, a graduate contribution via income contingent loans and maintenance supports for low-income students. It has sought to limit the scale of student debt by maintaining moderate fee levels. Recent concerns regarding pressures on public finances, following the removal of the cap on numbers, are of interest.

4.2.4 Model D: Low Direct State Funding with High Student Contribution Supported by Income Contingent Loans

There has been rapid and radical change in the English system in recent years and this makes it somewhat hard to judge how well such a system will conform with the guiding principles over time.

Up until 2012, the English system had a mix of moderate state grants and moderate student fees. Fulltime undergraduate fees were £3,000, supported by income-contingent loans, and the state provided a grant to colleges for each student, the level of grant varying dependent on disciplines. Since 2012, the Government no longer provides grants to institutions (other than a relatively small amount in respect of some high cost subjects) and institutions are allowed charge a maximum student fee of £9,000 (€12,000). Virtually all higher education institutions moved to charge the maximum fee for all disciplines—underlining the high demand for places in colleges and the limited impact on demand from fee increases. It has also been signalled in budget 2015 that the means-tested maintenance grant (income cut-off point of £42,620, maximum value of £3,387, 40 per cent students eligible) will be abolished and replaced by maintenance loans.

Loan repayments are collected through the income-tax system. Repayments are only made on earnings over £21,000 a year at a rate of 9 per cent of income. Interest on the loan is linked to the rate of inflation and is adjusted each year in line with the Retail Price Index (RPI). Rates will vary depending on the student's circumstances, and can increase to an 'RPI plus 3 per cent' rate for higher incomes. Any loan remaining after 30 years is written off. As a result of the 2012 fee reforms and the recent budget provision in relation to maintenance grants, the maximum level of loan available to students will increase dramatically to £17,000 per year.

The English model has proven more supportive of access than some expected. The 2012 reforms are believed to have largely succeeded in relation to participation and access. The college application rate of 18 year-olds has continued to increase and the application rate for disadvantaged young people reached record levels, but mature and part-time applications fell sharply. There are several relevant influences on this but the introduction of increased fees in 2012 is identified as the primary driver of the substantial fall in part-time numbers that occurred between 2011 and 2012 (Oxford Economics, 2014.). Income contingent loans are available for part-time students but access is restricted; only around one third of part-time students are eligible for loans. The English experience shows the combination of high fees and limited access to income contingent loans is not supportive of participation in part-time education.

⁹ A graduate earning £30,000, would repay 9 per cent of £9,000 or £810 annually.

Changes to the parameters of the system of income contingent loans in 2012 were set in such a way that lessened the burden of repayment on lower income graduates. Projections suggest that the lowest earning 30 per cent of graduates are likely to pay back less of their loan, and that the remaining 70 per cent are likely to make higher repayments than had been expected before the 2012 reforms. Given the high value of loans, it is projected that 73 per cent of graduates will have some debt written off, compared with 32 per cent under the old system¹⁰.

The large increase in student fees has certainly enhanced the resources available to the higher education institutions. This can, potentially, be supportive of high quality. But high institutional income may not, in reality, yield systemic sustainability. As noted in Chapter 3, the systems perspective and systemic sustainability goes beyond the budgets of the higher education institutions. The English system of income contingent loans has created uncertain future demands on the UK public finances. It had been estimated that the UK government will eventually pay around 45 pence of every pound lent to students as a result of low interest rates and favourable repayment terms; but estimates of both the future and current cost are highly dependent on a number of assumptions about future graduate income, interest rates and the discount rate. The removal of the cap on student numbers, as happened in Australia, has placed an additional burden on the system. The official estimate of the cost of providing income contingent loans in the UK has recently been revised downwards to 30 per cent. There are two reasons for the lower estimated costs. First, the discount rate used has been changed from a real rate of 2.2 per cent to 0.7 per cent. The discount rate was revised downwards to bring it in line with the cost of long-term government borrowing; the role of the discount rate in estimating the cost of income contingent loans is explained in Appendix 3¹¹. Second, the income threshold at which repayments are required has been frozen in nominal terms until 2021.

Contrary to what might appear to be the case—because of the proximity and familiarity of the UK—the English system is not a typical example of the use of income contingent loans. Other countries have not abolished most direct state grants to higher education institutions and the recently announced plans to abolish all maintenance grants in favour of loans is relatively unique. The political context in the UK is unusual in producing such radical reform of higher education and other policy areas. But England, like a number of other countries, does seem to illustrate that making higher education free at the point of access is consistent with continued high demand across the social class spectrum, despite the charging of significant student fees. Within England and the wider UK there continues to be active discussion and debate about the public finance dimension, particularly the high degree of uncertainty of the long-term fiscal cost of higher education and the scale of loans now available from the combination of high tuition fees and a high provision for maintenance.

4.2.5 Model E: Low Direct State Funding with High Student Contribution Supported by Mortgage-Type Loans and Philanthropy

At the right hand end of Table 1 is the US—model E. Like the Nordic countries, the US also has one of the highest levels of investment in higher education and a significant number of highly reputable institutions. Unlike the Nordic model, direct state grants account for a much smaller proportion of overall investment in the system. There is a high reliance on student fees and philanthropic donations. Median listed fees are \$9,410¹² but students in private institutions and studying in out-of-state public institutions can charge many multiples of this. 2/3rd of US students receive either a need-based grant, under the Federal Grant Program (Pell) or a merit-based scholarship, but the majority also hold student loans as higher education costs in the US have risen much faster than the value of grants and scholarships. Up to 70 per cent of US students now have student loans¹³ and median debt amounted to about \$20,000 in 2011-12. The vast majority of loans involve fixed-term repayments similar to a mortgage.

¹⁰ Payback Time? Student Debt and Loan Repayments: What Will the 2012 Reforms Mean for Graduates? Institute of Fiscal Studies 2014

¹¹ HM Treasury (2015), *Spending Review and Autumn Statement* (2014), available at <https://www.gov.uk/government/publications/spending-review-and-autumn-statement-2015-documents>

The US model offers a different pattern of strengths and weaknesses to the Nordic model. The undoubted excellence of many of its higher education institutions depends on very large philanthropic donations, which are supported by the general taxpayer through tax breaks. In addition, historically the US's leadership position in scientific research reflects massive defence spending. From a system perspective, there are real issues about sustainability and simplicity. As regards both access and fairness, the increasing US reliance on mortgage-type loans is considered to be problematic. While median debt levels may appear modest, loans of this type create high repayments burdens for some and access and completion by students from low-income households has become increasingly difficult. The rising cost of higher education (including tuition and living costs) and the diminishing value of grants result in the students from the lowest income quartile facing a net cost equivalent to 59 per cent of their typical family income¹⁴—making them most reliant on loans. One in three students that receive the Pell Grant leave without a degree, but with average debt of \$9,000¹⁵. Indeed, US research and policy debate increasingly looks beyond the cost of enrolment, to take account of the ongoing cost of participation and completion for students and their families, including the opportunity cost. College affordability and student debt burdens have come to be pressing political issues and an agenda to make tuition transparently free in certain parts of the higher education system is emerging. Particular problems in the US system include the fact that debt is weakly related to income, although calls for income contingent repayment are increasing¹⁶. Also, student debt burdens are not extinguished on bankruptcy or at retirement but continue into old age with particular consequences for low income earners. Particular problems have emerged in relation to very low quality outcomes and very low completion rates for large numbers of non-traditional parts of the private for-profit sector in the US. The social profile of higher education in the US has become less egalitarian.

4.3 Drawing on International Experience to Find a Reformed Irish Funding Model

The Expert Group, both in its own deliberations and in its consultations, sought to identify perceptions of the strengths and weaknesses of the different approaches to funding of higher education. This section summarises some of the broad lessons which Irish citizens, higher education actors and policy makers might learn from the international models.

Taken together, these experiences and lessons provide an important input to Irish discussion and policy decision on a reformed funding model capable of meeting the ambition set out in Chapter 2 in accordance with the principles enunciated in Chapter 3.

¹² College Board, Trends in College Pricing 2015, fee quoted in for public in-state students on 4 year programmes

¹³ Student Debt and the Class of 2013, TICAS for College Access & Success (TICAS), Nov 2014

¹⁴ Goldrick-Rab, S, Kelchen, R and J. Houle (2014). *The Colour of Student Debt*, Wisconsin HopeLab, September 2014.

¹⁵ Prof. Sara Goldrick-Rab, University of Wisconsin-Madison *Making College Both Affordable and Accessible: Lessons from the United States*. NUI Maynooth Conference on Funding Higher Education

¹⁶ Attis, D. (2013) Higher Education and US Competitiveness: Making the Case for Increased Investment, College for Every Student Summit, November 2013.

From the Nordic and wider continental European experience we learn:

The legitimacy of high levels of state funding which can be achieved when higher education is perceived to contribute strongly to a broad set of economic, social, public governance and public service goals;

The economic and social benefits of making higher education free at the point of access;

The wider socio-economic and fiscal conditions which underpin a fully state funded system of higher education;

The advantages of including taught postgraduate programmes in the general system of funding and maintenance, in order to promote high skill development and to ensure wide access;

The advantages of having sufficient resources to have tutorial and small group learning, close connection between students and staff, and high levels of trust and expectation.

From the Dutch and Australian experience, we learn:

The feasibility of a mixed system of funding, combining state grants, a graduate contribution and maintenance supports for low-income students;

The economic and social benefits of making higher education free at the point of access;

The advantages of supporting deferred payment of student fees with a system of income contingent loans that makes the 'student' contribution to higher education funding reflective of post-graduation earnings and life contingencies;

The ability to limit the scale of student debt by maintaining moderate fee levels, ensuring reasonable repayment periods and regulating the cost and duration of courses.

From the English experience, we learn:

The increase in overall higher education institution funding that can be achieved by higher fees supported by a system of income contingent loans;

The economic and social benefits of making higher education free at the point of access;

The uncertainty about the public finances that can be created by a comprehensive, radical and rapid reconfiguration of the overall system of higher education funding;

The public finance implications and loan scheme sustainability concerns that are created by having high fees and high loan provision for living costs.

From the US experience, we learn:

The high repayment burden on low earners that can arise from a mortgage-type fixed repayment student loan system;

The specific economic, cultural and fiscal conditions which underpin high levels of philanthropic funding of higher education;

The role the private sector can play in meeting increasing demand.

Chapter 5

Enhanced Investment and Funding Options

There is broad consensus on the need for a significant and sustained increase in resources for higher education. This chapter identifies the increase in investment required across core operational, capital and student support budgets over the period to 2030.

Three funding strategies are presented for achieving the increase in investment necessary, each involving a different balance of contribution from the state and students. This is followed by consideration of a number of complementary developments that should be considered as part of a reformed funding model, including the introduction of a structured contribution from employers, an enhanced student support system, increases in external revenue streams and a greater role for the private sector.

The closing section of this chapter considers the relative strengths and weaknesses of the three options.

5.1 Scale of Ambition and Investment

We have outlined the clear pressures emerging in the higher education system and on students and families in Chapter 2. The current level of funding is widely recognised as insufficient and unsustainable, placing the broad-ranging critical contribution that higher education makes across our economy and society at risk.

As outlined at the very outset of this report, small gradual increases in funding will not suffice and it is our strong view that a significant increase in investment is required. This is necessary if we are to match the levels of ambition and investment in higher education in the advanced countries that Ireland aspires to compete with in innovation, human capabilities, enterprise and social development.

The Group recommends an increase in investment targeted in three areas:

- **Core Funding:** Higher Education Institutions currently receive some €1.8 billion in state grants, student fees and other miscellaneous income for general operations. This needs to increase to €2.4 billion by 2021 and €2.8 billion by 2030 to provide for improvements in quality and increased demographics¹⁷. This is discussed further below.
- **Capital Funding:** A capital investment programme of €5.5 billion is needed over the next 15 years to sufficiently cater for increased student numbers, capital upgrades, health and safety issues, equipment renewal and ongoing maintenance as detailed in Section 5.5.
- **Student Support:** Students receive around €170 million annually in maintenance grants to help meet living costs. An additional €100 million is needed to deliver a more effective system of student financial aid as detailed in Section 5.4.

¹⁷ The funding figures presented in this report are all in real terms. Hence the expenditure projections do not reflect changes that would arise from general inflation or salary increases that occur over the period to 2030. They also do not take account of projected growth in pension payments which are paid directly out of institutional budgets in some parts of the sector. The Expert Group recognise that this is a key issue facing the higher education sector and the wider public service.

The increased investment in core funding is required to deliver a more effective higher education system with higher quality and better outcomes and to cater for increased student demand. Major investment is needed to improve student:staff ratios in order to support the high-quality, high-engagement, teaching and learning that Ireland needs to hold its own among the leading countries. Academics need to be able to dedicate more time to one-on-one and small group interactions and to at-risk students. They need to have time for developing transversal skills, and for supervising projects and work placements. This is essential for underpinning the quality and relevance of graduates' competences and abilities and improving completion rates. Complementary increases in student support services are also required to better support students.

Academics themselves need to be provided with more time to enhance their own scholarship, pursue research and engage with external stakeholders. Institutions need to invest more in developing the capabilities of staff, provide for continuing professional development and engagement with new pedagogical approaches and technologies.

In its recommendations on funding levels, the Group envisages Ireland ambitiously moving towards staffing levels evident in leading countries and recommends moving towards a ratio of 14:1 at a system level. In terms of increased demand, the Group has been guided by the projections from the Department of Education and Skills and has assumed that the current rate of participation will remain constant over the period¹⁸. This entails a 27% increase in full time enrolments by 2030.

Overall, this requires that annual current funding for higher education institutions is just over €1 billion higher by 2030. This can be delivered on a phased basis, but there will need to be some front-loading. While demographics can be funded by steady year-on-year increases, the urgent need to restore and enhance quality means that the annual increase in funding needs to be most pronounced in the next three to five years. The current funding base in 2021 needs to be €2.4bn or approximately €600 million higher than in 2015.

The requirement for capital and student support funding and the rationale for an increase in resources is elaborated on later in this Chapter. It is also recommended that action is taken quickly to deliver additional funding to these areas and that the overall funding requirement is front-loaded in earlier years.

Recommendation 1:

Ambitiously increase the funding available for higher education to enable the system to deliver fully on our national ambitions

¹⁸ Projections of Demand for Full Time Third Level Education, DES 2015 (Scenario S2 used)

5.2 Three Funding Options for Consideration

The review of international experience shows that various funding arrangements could be used to bring about this increase in investment. From its analysis, the Expert Group suggest that three funding options be considered now in Ireland.

All three involve the same ambition and funding levels detailed in the previous section. In each, the funding envelope for both higher education institutions and student support is increased to the same level. Each option also assumes a contribution from employers, this is discussed in detail in Section 5.3. But each involves a different approach to the role and nature of student contributions and as a result the level of additional state investment that will be required.

It is worth recalling that Ireland has adopted a number of different approaches to student fees over the last 20 years¹⁹. Prior to 1996, undergraduate education was not free and students were required to pay tuition fees of the order of €2,000 - €3,000. At that time public funding accounted for 70 per cent of overall expenditure on higher education²⁰. The introduction of the Free Fees Initiative in 1996 brought in an era of free undergraduate education; tuition fees were abolished and students were only required to pay a nominal charge. Under this system, public funding accounted for 84% of overall expenditure. This policy continued up until the recession. Since 2008, the level of fee has more than tripled, albeit it with a significant number of students excluded from paying this fee under the grant scheme. When considering core funding of higher education institutions and student supports only, the state is currently contributing 64 per cent of overall expenditure.

Drawing on the spectrum of funding models set out in Chapter 4, the Expert Group recommends three funding options for consideration by the Minister for Education and Skills.

Recommendation 2:

The Expert Group recommends that the Minister for Education and Skills consider three ways of achieving the necessary increase in funding options:

Option One: A pre-dominantly state-funded system;

Option Two: Increased state funding with continuing upfront student fee;

Option Three: Increased state funding with deferred payment of fees.

¹⁹ The Department of Education and Skills also undertook a review of policy options for a new system of student contributions in 2009.

²⁰ OECD Education at a Glance

5.2.1 Funding Option One: A Predominantly state-funded system

Funding Option One is modelled on the arrangements evident in many European countries, in which the state provides the vast bulk of the funding for higher education and higher education is free or subject to a nominal charge. This situation prevailed in Ireland following the introduction of the free fees initiative in 1996 and before the series of increases in the student contribution since 2008.

Under this funding option, the Government would commit to an immediate and steep increase in state funding.

Under funding Option One the state would increase its core grant to institutions, existing student fees would be abolished and student income supports would be enhanced. Higher education would be free at the point of entry for all first-time EU students, including part-time learners.

There are two variations possible in this option. In one variant, found in the Nordic and some continental European countries, there would be no fees for either undergraduate or postgraduate education. In another the existing student fee would be abolished only for undergraduates.

In both variations of funding Option One, the majority of the additional funding requirement will be met by the state. This will result in the proportion of total funding provided by the Irish state increasing from the current level 64 per cent to 80 per cent. The state's contribution would continue to be funded from general taxation. The balance would be provided by fee income from post-graduate students, international students, employer contribution, and other privately raised income.

The additional cost to the state of supporting higher education in Funding Option One, relative to the existing arrangements, is envisaged to be €1.3bn per year by 2030.

Millions Euro	2015 Existing	2030 Option I
Funding of Higher Education Institutions	1,831	2,875
Direct state grants	923	2,255
Student/ Family and Other Fees	908	470
Employer	0	150
Funding for Student Support		
Fees/ ICL cost	180	0
Living Costs	187	295
Total Cost to the State	1290	2,550
Additional State Investment		1,260
Total Funding for Higher Education	2,018	3,170
State Proportion	64%	80%

²¹ The figures here are for variation two (postgraduate fees not abolished). The current revenue associated with taught post-graduate fees is in the region of €150m per annum, based on average annual fee of between €7-8,000.

5.2.2 Funding Option Two—Increased state funding with continuing student fees

Funding Option Two is a continuation of the current Irish hybrid model of significant state funding matched with a moderate upfront student contribution for first-time EU undergraduate learners. Students from lower income backgrounds would continue to receive fee waivers under the student grant scheme.

Under this funding strategy, students would continue paying a fee at close to the existing level of €3,000 with most of the necessary increase in funding being provided by the state. This would require a Government commitment to an immediate and steep increase in state funding. It is also recommended that consideration be given to treating first-time part-time students in the same manner as full-time students i.e. fees waived for those from lower income backgrounds.

This model of upfront fees with no mechanism for deferred payment is quite unusual in developed countries. It is critical that there is a robust system of student supports and fee waivers to assist students from lower income families to participate. In addition to the enhancement of student supports outlined in Section 5.4, it is also advised that additional measures may be necessary to reduce the financial burden on middle income families, especially those just above the grant income thresholds. This could take the form of additional tapered fee waivers under the grant scheme or an extension of current tax reliefs.

Under this model the proportion of total funding provided by the state would increase from 64 per cent to 72 per cent.

The additional cost to the state of supporting higher education in Funding Option Two, relative to the existing arrangements, is envisaged to be €1bn per year by 2030.

It should be noted that any decreases in the fee level would need to be matched by additional increases in state funding. At current student numbers, a €250 reduction would require €16m in additional state investment.

Millions Euro	2015 Existing	2030 Option I	2030 Option II
Funding of Higher Education Institutions	1,831	2,875	2,875
Direct state grants	923	2,255	1,765
Student/ Family and Other Fees	908	470	960
Employer	0	150	150
Funding for Student Support			
Fees/ ICL cost	180	0	227
Living Costs	187	295	295
Total Cost to the State	1290	2,550	2,287
Additional State Investment		1,260	997
Total Funding for Higher Education	2,018	3,170	3,170
State Proportion	64%	80%	72%

5.2.3 Funding Option Three—Increased state-funding with deferred payment of fees through income contingent loans

Funding Option Three is centred on the introduction of a deferred payment system for student fees. This option envisages the continuation of significant state funding combined with the introduction of a deferred payment system as an alternative to the current upfront fee.

Under this funding model all undergraduate students would be charged fees. However, a facility would be introduced to allow the payment of these fees to be deferred until after graduation. Consequently, no students—including a projected 25,000 part-time and 40,000 post-graduate students—would have to make an upfront payment or fee for their higher education.

Having examined different approaches to deferred payment²², the Group favours an income contingent loan model. This approach ensures that higher education would be free at the point of entry for all students. Furthermore, it allows payment to be linked to future earnings and ability to pay. Graduates would pay for tuition later, but only if the education they received results in well-paying jobs. Payments would only be required when income is above a certain threshold, with the level and duration of repayment varying depending on income. In essence, the test of 'means' would shift from current family circumstances, as occurs with the existing fee waiver system, to the earnings achieved by graduates in later years. It is important to note that the option of paying upfront would be retained under this system.

If this system is adopted the Group recommends that consideration be given to an increase in the level of student fee. This would allow for a greater sharing of the additional costs between the state and students, while the deferred payment system would ensure that the burden on students could be managed. However, the Group cautions that the level of undergraduate fees should remain moderate and would recommend that the cost sharing balance in Australia should be used as a guide. It is also recommending that an independent agency be given responsibility for the regulation of fee levels. Increased revenue from student fees must not be offset by reductions in state grants.

Under this option, all first-time EU undergraduate learners, fulltime and part time, should be given access to the student loan scheme. The Group also recommends that the scheme is extended to postgraduates learners.

It is considered essential for the successful implementation of this option that repayments are collected through the tax system.

The Government would need to raise considerable monies to finance the loan scheme. There are a number of options that can be considered including revenues from the sale of state assets, NTMA raised finance, and the EIB.

By their nature, income-contingent loan schemes generally entail some level of public subsidy and this should be factored in to costing considerations and viewed as an additional state investment in the system. As noted in Chapter 4, there are a number of key design parameters in a system of income contingent loans including coverage, cost and affordability; funding and fiscal issues; income thresholds and arrangements to manage the income contingent loan. Appendix 3 provides an overview of work carried out by the Expert Group on a possible income-contingent loan system in Ireland. This looks at income contingent loans from three perspectives: affordability for students and families; the cost to the state; and the implications for the fiscal rules and future government debt and borrowing capacity.

²² The Group also considered a graduate tax and fixed-term loans

There are considerable uncertainties in estimating the costs to the public finances of providing income contingent loans. A range of cost estimates is provided in the Appendix. The cost of providing income contingent loans arises from two main sources. First, there is the cost of loans that are not repaid. Second, if the interest rate charged to students is lower than the cost to the state of raising this finance there is a second cost in the form of an interest rate subsidy. There would also be administrative costs, but the international experience of income contingent loans is that these are low. The calculations in Table 4 are based on the public subsidy being around 20 per cent of the loans issued²³. The exact level of subsidy can be designed by Government through the various loan parameters i.e. thresholds, interest rates etc.

For illustrative purposes, Table 4 outlines two fee scenarios—each with a different level of student fee and associated student loan. In the first, students would make a deferred payment of €4,000 per year. In this scenario, the state would be envisaged to provide additional annual funding of €700m; bringing its share of total higher education funding to 60 per cent. With a higher deferred payment of €5,000 per year, the additional annual state funding requirement would be €548 per annum in 2030, amounting to a share of 55%.

Under these scenarios, the proportion of overall funding for higher education provided by the state would be lower than it is currently; and significantly lower than under funding Option One and Two. This reflects the core feature and purpose of funding Option Three: to achieve an appropriate level of higher education funding and quality and to share the costs of this between the main beneficiaries—society at large, graduates and enterprise. However, both scenarios still require some additional state investment.

In funding Option Three, the state investment would include a direct core grant of between €1,307m and €1,557m per year in 2030, depending on the level of deferred payment; and an indirect cost of between €150m and €190m based on the projected cost to the state of the system of income contingent loans.

If Government decided to move to this funding model, it would take a period of time to define the parameters of the system of income contingent loans. For this reason, it is envisaged that some of the additional direct state funding and employer contribution would need to be front loaded to meet the higher education funding requirements over the immediate period.

²³ The modelling work presented in the appendix on affordability for graduates and the costs to the state refers to loans for undergraduates only. However the calculations in Table 4 apply an estimate of loan losses to a scale of loans that includes all types of student loans (undergraduate, postgraduate and part-time).

Table 4: Funding Option III					
Millions Euro	2015 Existing	2030 Option I	2030 Option II	2030 Option III A (ICL - 4k)	2030 Option III B (ICL - 5k)
Funding of Higher Education Institutions	1,831	2,875	2,875	2,875	2,875
Direct state grants	923	2,255	1,765	1,557	1,370
Student/ Family and Other Fees	908	470	960	1,168	1,355
Employer	0	150	150	150	150
Funding for Student Support					
Fees/ ICL cost	180	0	227	149	188
Living Costs	187	295	295	295	295
Total Cost to the State	1290	2,550	2,287	2,001	1,853
Additional State Investment		1,260	997	711	563
Total Funding for Higher Education	2,018	3,170	3,170	3,319	3,358
State Proportion	64%	80%	72%	60%	55%

Recommendation 3:

If funding Option Three is selected, an implementation team should be established to design the deferred payment scheme.

5.3 Employer Contribution

In its guiding principles, the Expert Group has identified fairness and balance as a key determining factor for a new funding model. It further suggested that in designing a funding system it is appropriate to take account of the various beneficiaries of higher education. While the previous section considered the contribution that should be made by the state and students, the Group is strongly of the view that the third major beneficiary of higher education – employers – must also make a contribution towards the funding of the system, regardless of the overall funding model adopted. This is particularly appropriate in the Irish context given the high proportion of graduates in the Irish workforce.

It is acknowledged that employers already contribute financially to higher education institutions by paying tuition fees for employees, contributing to research projects and through donations or sponsorships. However, the scale of benefits accruing and the principles of fairness and balance discussed above suggest that employers should contribute more.

For this reason, the Expert Group are proposing as a core element of its recommendations that there should be an increased and more structured contribution from employers.

Employers already contribute to training initiatives via a levy to the National Training Fund (NTF)²⁴ and the Expert Group proposes that this is the most appropriate vehicle for developing a funding contribution to higher education. The NTF is mainly financed by a levy on employers of 0.7 per cent of reckonable earnings in respect of employees in class A and class H employments, which represents 75 per cent of all insured employees. The levy raised €340m in 2014. Each 0.1 per cent increase in the levy could raise at least an additional €50m per annum.

This revenue stream should be targeted and used to support programmes in areas of skills demand across the economy and public services and to support flexibly-delivered programmes (including part time, distance and online) in public and private higher education institutions. The Group also believe that the introduction of a formal contribution can facilitate better engagement and collaboration between higher education institutions and employers in course provision and programme design. There are a number of initiatives already in place that can be used as platforms for this engagement including Springboard+ and the Regional Skills Fora. In each option above, it is envisaged that employers will contribute €150 million each year to higher education.

Recommendation 4:

Employers should contribute more to the funding of higher education. The scope of the National Training Fund should be extended to include greater support for programmes in higher education and the levy should be increased to facilitate this.

²⁴ The National Training Fund was established in 2000 as a ring-fenced means of supporting the training of those in employment and those who wish to take up employment. Programmes generally take place in the further education and training sector, but apprenticeship programmes in the IOTs and activation initiatives such as Springboard and ICT skills conversion courses are also supported by the Fund.

5.4 Enhanced Student Support

The state operates a number of student support schemes which provide financial assistance to students. The student grant scheme is the primary support mechanism; it is a demand-led scheme and contains two elements; the payment on behalf of the student of the student contribution (now €3,000), and a maintenance grant towards the living costs. The Student Assistance Fund and Fund for Students with Disabilities (Access Funds) provide additional supports on a targeted, needs basis. More detailed information is provided in Appendix 2.

Each of the funding options involves an enhanced student support system. This will deliver an increase in the value of maintenance payments to better reflect living costs; will better target supports to those that need them most; and will broaden the coverage of the scheme from the current focus on fulltime undergraduates to part-time and postgraduate students.

It is essential that there are sufficient financial supports available to attract and retain students in higher education and to allow them devote sufficient time and energy to learning. This is particularly the case for students from lower-income and non-traditional backgrounds.

Tuition fees are not the only financial barrier to participating in higher education. The costs associated with going to college—both direct costs and the opportunity cost of not working—are significant and can act as a deterrent to engaging in higher education. The cost of living varies depending on circumstances, the biggest factor being proximity to the college a student is attending. DIT estimates the average yearly costs for students living at home to be €4,000, for students living away from home at €8,000 and for those renting in Dublin at €8,800²⁵²⁶. While the special rate of grant goes a considerable way to meeting these costs, only 30 per cent of maintenance grant holders or 11 per cent of all undergraduate students qualify for this enhanced rate. The full 'standard rate' grant only covers 30-35 per cent of the estimated costs of living, despite the fact that around half of the students getting this amount come from households of under €30,000.

The level of grant support is forcing many students to rely excessively on part time work or family contributions as a result. We also know that families are increasingly relying on commercial loans to cover costs. The system also does not take sufficient account of regional disparities, and the changes in distance criteria have resulted in a reduction in funding available to some students. Many students are commuting long distances as a result. The Expert Group believe that the value of grant payments needs to be increased, with specific attention paid to those on lower incomes.

In addition, there are well discussed inadequacies in the current means testing arrangements which only consider income and take no account of capital, assets or accumulated wealth.

The Group also examined the merit and feasibility of introducing a system of maintenance loans for students which are a common feature of student support in many countries. The Group is not advocating this and believes that the proposals outlined in its recommendations in relation to tuition fees and enhanced targeted maintenance grants will be sufficiently robust. This is an issue that should be kept under review.

²⁵ <http://www.dit.ie/news/archive2015/latest/title,112385,en.html>

²⁶ The Group acknowledges that high rents in some areas are a particular problem and are a symptom of housing issues in urban areas. This needs to be considered as part of broader housing policy.

Recommendation 5:

The current model of student support maintenance grants should continue and should be enhanced to better reflect the real costs of participation, and better targeted by taking account of capital assets and accumulated wealth.

The second major inadequacy in the current system relates to the coverage of the schemes. Part-time and postgraduate students have limited support. A central tenet of the reformed funding model proposed by the Expert Group is a more holistic inclusion of all learners in the funding system.

The majority of supports for postgraduate education were removed in 2012. There is a risk that high tuition fees at post-graduate level, and the absence of financial supports for those that need them, will drive a social class divide at this level. This will permeate into the labour market and life chances as many professions and careers now require a postgraduate qualification.

Currently, part-time students cannot avail of any student supports outside of those available under targeted activation programmes, social protection allowances and tax reliefs²⁷. While many part-time students are able to combine study and work, there are some that need assistance with living costs. 70 per cent of part-time learners are over the age of 30 and it is recognised that there are specific barriers for these learners including childcare and family responsibilities.

Successive recommendations and advice on part-time learning over some decades now have cited financial supports as a key barrier and have advocated for a parity of treatment with fulltime learners. If we are really serious about meeting our ambitions on access and lifelong learning there will need to be significant improvements to the incentive and support structure for students. This does not necessarily imply just an extension of supports available to fulltime learners—it is more likely that different and more targeted supports will be needed. The current grant scheme was primarily designed for full-time students and was introduced at a time when the emphasis on lifelong learning was not as strong. While any extension of the scheme to part-time learners will require careful consideration, it would appear timely to do so now. This review should also consider the merits of extending support to students in private institutions.

Recommendation 6:

The student support funding model should provide for a more holistic treatment of all learners by:

- Reinstating maintenance grants for postgraduate students;
- Extending the two student access funds to part-time students and increase the level of funding accordingly.
- Continuing to provide targeted support and sufficient resources to part-time learners through the Springboard+ programme and the National Access Plan.
- Examining the potential of extending support under the student grant scheme to part-time learners and learners in private institutions

²⁷ Tax relief is available at the standard rate of 20% on tuition fees up to a maximum of €7,000 per individual. This is available for part-time and postgraduate fees, and for parents paying the student contribution for two or more students.

5.5 Capital Funding

The Expert Group believes that particular attention needs to be paid to capital investment. It is conscious that this can be drowned out by discussions on core funding.

The sector has a very significant asset base with buildings with an insured value of €8 billion, in addition to equipment. With the student population growing at an average rate of 1.5-2 per cent per annum and a research base that continues to expand, there is a continual need for the development of additional space and facilities along with ongoing maintenance and refurbishment works.

Similar to core funding, capital projects are financed from public and private sources. Periodic state capital grants are awarded for specific projects based on case-by-case submissions. This is complemented by the build-up of reserves from current resources. On the private side, capital projects have been funded by philanthropic donations. In the university sector there is also a growing reliance on borrowings to fund projects²⁸.

Infrastructure maintenance, minor works and equipment has traditionally been met from recurrent budgets with the balance provided by 'devolved grants' from the Department of Education and Skills for other minor works.

A reduction in state capital grants along with reduced flexibility in core operating budgets since 2009 has resulted in a significant problem in the maintenance and upgrading of facilities over recent years. Backlogs which have been consistently identified in the sector, most notably in 2004²⁹ and in 2010³⁰, have been exacerbated over the recent period. Enhanced recurrent funding will allow universities and IOTs to meet some of the costs of day-to-day maintenance, minor works and equipment renewal from core budgets. In addition some institutions have the capacity to fund a portion of their own capital development plans from donations or borrowing. However, other institutions are likely to remain heavily reliant on state capital grants for some time.

Drawing on available data, it is estimated that in the region of €5.5 billion is required over the course of the next fifteen year period - or approximately €370 million per annum - to sufficiently cater for increased student numbers, capital upgrades, health and safety issues, equipment renewal and ongoing maintenance³¹. While private funding will meet some of this, the majority will need to come from the state. This is significantly higher than envisaged in the capital investment plan, which provides for €150 million over the next six years along with an additional provision of €200 million through public private partnerships.

The development of a coherent strategy for capital developments over the next period and robust oversight mechanisms at a central level will be vital in ensuring the most effective use of additional resources. This must form a central element of the strategic dialogue process between the HEA and institutions.

Recommendation 7:

A capital programme of €5.5 billion is required over the next 15 year period. As the majority of this will need to come from the state, the provision within the current Capital Investment Plan 2016-2021 must be urgently reviewed.

In addition, the power to borrow should be extended to Institutes of Technology.

²⁸ Institutes of Technology are precluded from borrowing under current arrangements

²⁹ Review and Prioritisation of Capital Projects in the HE Sector, 2004

³⁰ HEA Space Utilisation Survey, 2010 found that with a total insured value of existing buildings of €8.1bn, 60% were in good condition, 30% were in need of major repair, and 10% were in need of replacement

³¹ This relates to core functions of teaching and learning and does not take account of student accommodation or ancillary projects e.g. sports facilities

5.6 Complementary Developments

Higher education institutions are pursuing opportunities for income generation from a number of areas including international education, international research programmes, philanthropy, and enterprise partnerships. These provide not only welcome additional funding but the activities themselves enrich and enhance our institutions.

Great efforts have been made in recent years to develop Ireland's offering to international students and internationalise our system. This has been successful and the system is targeting that 13 per cent of its student cohort will be international students by 2016. These students undoubtedly provide an important income stream to institutions. However, it is vital for the student experience and the reputation of institutions that sufficient resources are invested in programme delivery and student supports for international students. Maximising our ambitions in this area will require coherent national and institutional strategies. The new National Strategy for International Education, to be published shortly, will be important in this regard.

Ireland has succeeded in developing strong research capabilities over the last decade and has proved very successful in attracting significant levels of funding from EU funding programmes and other international sources. This external funding allows the system to further develop its capacity and its reputation with knock on effects for the system as a whole. Strong structures and supports are in place to maximise Ireland's drawdown under the current Horizon 2020 programme.

Philanthropy has proved a valuable source of revenue for higher education institutions in the past, particularly for capital and infrastructure development and a number of individuals and foundations have been particularly supportive to Irish higher education. At its peak, around €50 million per annum was raised. This is an area of potential and there is a need to examine international practice in this regard, including the targeting of smaller, more regular donations from alumni communities.

Finally, the Group is of the view that private institutions can and should make up a greater share of the overall system. The National Strategy for Higher Education to 2030 envisaged a greater role for private institutions in the future, specifically in terms of bidding for state-funded student places in areas of identified need. This did happen through the Springboard programme and ICT Conversion Programmes. The sector has demonstrated its willingness and capacity to respond to national needs, and it can play a vital role in meeting additional demand in coming years through programmes of this nature. The sector has also demonstrated its commitment to quality and high standards—student outcomes under the Springboard programme were strong and the sector works constructively with QQI to ensure a strong quality regulatory framework is in place.

In each of the three funding options it is expected that income from other sources will increase by €60 million each year.

5.7 Perceived Strength and Weaknesses of Each Funding Option

In the closing part of this chapter we identify some of the perceived strengths and weaknesses of the three options identified in Section 5.2. We suggest that such a discussion needs to be informed by three sets of considerations.

First, it needs to be informed by the five guiding principles set out in Chapter 3:

- A system perspective: sustainability, certainty and simplicity;
- National ambition;
- Quality—in student experience, qualifications and competences;
- Access, participation and progression;
- Fairness and balance.

As in all policy deliberation, the guiding principles must be applied and balanced in a reasonable way.

Second, Ireland's discussion and choice of a funding model needs to be informed by the international experience reported in Chapter 4. Almost all the funding possibilities have been tried in various countries, with varying degrees of success and stability. Some approaches are long-standing, others more recent and yet to be fully tested. It seems wise to learn as much as possible from the experience of other countries.

Third, at the same time, the discussion also needs to be informed by an awareness of Ireland's particular—and, indeed, distinctive—situation. Ireland is distinctive in four important respects:

- Irish higher education faces an unusually large funding challenge, and is in need of significantly increased funding, relative to the countries with which we compare ourselves and with whom we compete;
- Ireland is distinctive in having significant student fees, now the second highest in Europe, without a system to support deferred payment;
- The relationship between the number of students and funding is distinctive: in Ireland there is no formal relationship between student numbers growth and higher education system funding. This is particularly relevant because Ireland, unlike most countries, will have strong demographic growth for the next decade and a half.
- Ireland is distinctive, although not unique, in having to operate within complex EU fiscal rules starting with a high debt level.

Before noting the different perceived strengths and weaknesses of each of the three funding options, we should recall some common goals and characteristics. Given the analysis of the Expert Group, all three of the funding options proposed for consideration have the following characteristics:

- All involve increased investment by the state, though to different degrees. Given the importance attached to the continuing role of the state—none of the three options envisages a system that is predominately funded by tuition fees. The Group would like to make clear that it does not advise and would not welcome any move towards the level of fees in England and in parts of the US;
- All are focused primarily on the need to enhance the quality of student experience, learning and qualifications through improving the student:staff ratio to the level in advanced countries;
- All include improved student income supports for eligible students;
- All envisage a levelling of the playing field for part time learners to better promote and support the development of lifelong learning;
- All envisage the continuation of fees for non-EU students, with fee levels at the discretion of individual institutions.

Given these common goals and characteristics, in outlining the issues likely to be considered in choosing between the three funding options we focus on the distinctive characteristics of each.

While each funding option has to be tested individually for feasibility and sustainability, most of the perceived strengths and weaknesses of the three options need to be considered jointly. This is because (almost) everything that shapes the desirability of a given funding option is relative; one approach to achieving certainty, simplicity, access, affordability, integrated pathways, fairness and balance must be judged relative to alternative funding options. Almost by definition, every funding approach or instrument has an obvious and tangible negative aspect—taxes, fees or student debt repayments or a combination of these. It is not realistic or sensible to cite the negative character of any one instrument in isolation—as if there were a way of funding higher education that did not draw money from some source. It is always and only the *relative* advantages and disadvantages that should be considered. Of course, these will not be the same for every group; choice of a funding model has distributional implications. But, in the end, society has to choose an approach that best meets the considerations listed above.

5.7.1 Issues Likely to Arise in Considering Funding Option One

The distinctive feature of funding Option One is the predominance of state funding. Some of the perceived strengths of this approach were noted at the end of Chapter 4, when summarising the lessons to be learned from the Nordic and continental European experience. The central argument for state funding is that there are significant public benefits arising from higher education. Public funding recognises the public good dimension of higher education and it supports the state's overall aims of enhancing skills, innovation and social mobility. In addition, public investment in higher education enables the state to maintain an interest in overall system development which is vital given the underpinning role higher education plays in our economic and social development.

The distinctive feature of Option One is the abolition of the existing student fee of €3,000, with the state increasing the core grant to make up for this. Consequently, under funding Option One, higher education would become free at the point of access, a feature also found in funding Option Three. However, unlike Option Three, under one variant of funding Option One it is not envisaged that post-graduate education would be free at the point of entry.

Higher education which is free at the point of access is attractive for a number of reasons. One is that it addresses one well-recognised market failure: that, making purely individual calculations on household expenditure and borrowing, people will tend to under-invest in developing capabilities and human capital. As well as individuals missing out on real opportunities for personal development and gain, society as a whole ends up with a sub-optimal investment in knowledge and capabilities.

Funding Option One would certainly meet the criterion of simplicity, as the state would fund most aspects of higher education. Provided state funding was on the scale necessary to achieve quality equivalent to that in the relevant comparator countries, Option One could support national ambition. Provided state funding included enhanced student income supports—and a more equal treatment of part-time students, life-long learning and pathways from further education to higher education—it could serve the guiding principles of access, participation and progression.

Reservations about choosing Option One are likely to mainly relate to the availability of State resources and the guiding principle of fairness and balance. While the public good dimension of higher education is widely accepted, and strongly endorsed by the Expert Group, few would argue that it is a pure public good. Because almost all the funding for higher education would come out of general taxation, some will see Option One as taking limited account of the considerable private benefits which accrue to graduates of higher education. As indicated in Table 4, Option One involves the highest share of state funding. Some will consider that the combination of public and private return warrants a sharing of the cost between the state, student/graduates and employers.

Of course, the state funds many things which are not pure public goods, such as health and welfare; but the case for this is made in terms of equity, fairness or justice, rather than the public nature of the good in question. In terms of the guiding principles of fairness, balance and access, it seems important to carefully identify and assess the relative merits of Options One, Two and Three together. In such a comparison some of the relevant dimensions include:

- Fairness and balance between those who receive higher education and citizens who do not;
- Different ways of pursuing the principles of fairness, access, participation and progression: by universal state funding, by up-front student fees, by means testing parents' income at the moment of student enrolment, by a deferred payment through income contingent loans, or by a combination of these.

These dimensions figure when, below, we identify the perceived strengths and weaknesses of Options Two and Three. There it becomes clear that there are different ways of judging the fairness and social progressivity of the various funding approaches.

Some may also have reservations about Option One on the grounds of certainty, ambition and quality. The attractive features of a predominantly state funded higher education system depend on state funding reaching the level necessary to ensure quality and being maintained at that level. While the public finances are improving, increases in state expenditure will remain constrained in the coming years and there are various other competing demands for public investment. Moreover, it is important to take account of the level of taxation in countries that currently have predominantly state funded higher education systems. Using OECD data, tax revenue in Ireland is 30 per cent of GDP (35 per cent of GNP), compared with an OECD average of 34 per cent and levels of over 40 per cent in Scandinavia.

5.7.2 Issues Likely to Arise in Considering Funding Option Two

The distinctive feature of funding Option Two is the retention of the current system of upfront college fees: €3,000 per year for undergraduates and much higher levels for those in postgraduate programmes, with retention also of the existing system of a means-tested fee waiver system for students whose family income falls below a certain level.

Some may see the existing undergraduate and postgraduate fees as an appropriate way to balance the public and private benefits of higher education, and will advance arguments in favour of that view. Retention of this model would guarantee a portion of funding to colleges independent of government budgetary decisions. In addition, it is familiar and relatively simple to understand.

Reservations about funding Option Two are likely to arise from a number of directions.

First, under Option Two higher education in Ireland would continue not to be free at the point of entry. In this respect, Ireland would remain different from most other EU countries, Australia and New Zealand.

Second, on grounds of fairness and access, there may be a range of related reservations about funding Option Two, relative to Options One and Three. It is worth noting some of these here.

Option Two would involve continuation of the current regime in which students pay an up-front fee of €3,000 per year, but with a very significant share of undergraduate students (currently around 50 per cent) having this paid by the state. This state support or fee waiver is based on their family income at the time they enrol for college. Those with reservations about the fairness of this option, relative to Option One or Three, are likely to draw attention to a number of features of this system:

- People are experiencing considerable difficulties in paying the current contribution: Looking beyond the average of the group who pay the €3,000 fee, many students/families are experiencing considerable difficulties in paying the current fee. Some pay it, but only by taking recourse to borrowing (mortgage-type borrowing that many would see as less suitable and more expensive than income contingent loans, as noted below).
- People with significant resources are receiving supports: Again, looking beyond averages, some students who qualify for the fee waiver, because of low recorded family income at a given point in time, are in families with significant resources and high lifetime incomes. Although exact proportion is not known, this aspect has undoubtedly undermined societal trust in the fairness of the current system of higher education grants and fee waivers.
- The current system is limiting access to post-graduate and part-time education: The regime of fee grants and income maintenance does not apply to part-time students and is limited for taught postgraduate programmes. This, some will argue, threatens to re-establish at the post-graduate level the class bias that used to characterise Irish undergraduate education in earlier decades and is acting as a barrier to lifelong learning.

These observations lead some to doubt the fairness of the existing system of fees and fee waivers and to the view that there are more socially progressive ways to fund higher education—such as Option One or Option Three.

5.7.3 Issues Likely to Arise in Considering Funding Option Three

The distinctive feature of funding Option Three is the abolition of the existing upfront fees, for both undergraduates and postgraduates, and their replacement with a system of income contingent loans provided by the state. As well as its perceived overall strengths and weaknesses with reference to the considerations listed earlier, discussion of this funding option is likely to focus on its implications for students, the public finances and the resources available to the higher education institutions. Here we note some of the likely perceptions and considerations.

One perceived advantage of this approach is that it would reflect the combination of public and private benefits from higher education. Funding Option Three (like Option Two) is based on the idea that costs should be shared between the state, students and enterprise. This reflects one view of what is a fair balance between those who receive higher education and citizens who do not. If it is accepted that students should make a contribution to the cost of higher education, some will argue that there are a number of advantages to deferred payment (using income contingent loans) rather than up-front fees or mortgage-type loans. We focus here on the comparison with up-front fees, since the Expert Group does not include mortgage-type loans among the options which the Government should consider.

The provision of income contingent loans means that, notwithstanding the student/graduate contribution, higher education would be free at the point of entry. No upfront payment would be required. Students would make their contribution after they graduate, provided their income exceeded a certain threshold. The provision of income contingent loans is the only policy measure that would simultaneously combine direct cost sharing and education being free at the point of entry. Funding Option One makes education free at the point of entry for undergraduates but not for post-graduates if variation two is selected. Funding Option Two would make higher education free at the point of entry only for those students who qualify on a means test of their parents' income at the time of enrolment.

An important issue in deliberation on Option Three is likely to be its fairness between students from different income groups, including its implications for access, income distribution and social progress. Two different perspectives are likely to be articulated. One view is that Option Three, with deferred fees funded by income contingent loans, would be more socially fair than the current system of fees combined with means-tested fee waivers to students from low

income families. This view focuses on the wider and long-term social implications of moving to Option Three. An alternative view is that Option Three would be unfair and regressive relative to the existing Irish approach. This view focuses on the immediate implications for one group of students; those who currently qualify to have their fees paid by the state would, instead, take out a student loan to pay their fees and repay these later, contingent upon their future earnings. For this group, Option Three would involve a move from higher education which is totally free (at least as regards fees, if not living costs), not only at the point of entry but ever after, to a system in which education is free at the point of entry but paid for later, depending in subsequent earnings.

In some respects, the difference between these two views reflects a difference between a traditional, means-tested, approach to welfare and social transfers and a life-course perspective. The former judges need at a given point in time, and as measured by reference to parental income only, with no regard to life-time resources or capability to contribute. While responding to immediate need has an obvious logic in addressing lack of income or illness, this perspective suggests that it is equally valid in the case of a long-term investment such as higher education. By contrast, from a life-course perspective a deferred payment system is likely to look more progressive and fair. This is because it gives weight to the wider costs and the difficulties facing families in specific circumstances and seeks to take account of benefits and costs in a more complete way. Advocates of this view would emphasise that a critical feature of effective student loan schemes is *their income contingent* nature. This means that although most students take on a loan to pay their fees, the amount, speed and duration of repayment is significantly related to their subsequent earnings. Some students from low-income households will go on to earn high incomes; to some it seems fair that they should then contribute to the costs of the education that facilitated this. A student's subsequent income can be viewed as a less arbitrary basis for their contribution than the income of their family of origin in a particular year. Most importantly, those who earn below a certain amount (because they are in low salary employment or various life contingencies limit their access to work and income), would pay back nothing. Some will consider that this would be a fairer and less blunt form of state support than the current somewhat arbitrary and time-specific earnings threshold below which the state pays a student's fees. Recall the reservations which some have about Option Two: the affordability of the existing €3,000 fee for many families, the fairness of the existing income-based means test and fee waiver, and the narrowness of deciding eligibility for a fee waiver by reference to family income at the point of enrolment rather than life-time resources and capacity to pay.

In addition, an important further dimension of the relative social implications of Options Two and Three is access to postgraduate programmes. Can it be argued that the social advantages of the current means-tested fee waiver for eligible undergraduates outweighs the disadvantages of high fees for postgraduate courses? Others will argue that continuation of the current high, varied and increasing fees for postgraduate programmes, with limited fee waivers for students from lower income families, will further fuel the re-emergence at graduate level of the class gradient that characterised the whole of Irish higher education in earlier decades.

An important additional consideration is the implications of income-contingent loans for the public finances. There are two channels through which it would generate savings. First, the provision of loans is a less costly way of assisting lower income students compared to fee waivers. Second, it is envisaged that there would be an increase in the level of the student contribution if income-contingent loans were introduced. On the other hand there would also be costs. First, not all loans would be repaid in full and loans would be provided to a larger group than currently avail of fee waivers. Second, interest rates would be subsidised for borrowers who are on low incomes and possibly for all borrowers if the state's cost of raising finance were to increase above the effective interest rate charged to students. There are uncertainties in regard to the costs of income-contingent loans; future repayments and the future real financing cost

to the state cannot be known in advance. Nonetheless, it is expected that there would be net savings to the public finances arising from the introduction of income-contingent loans while at the same time higher education would become free at the point of access for all students. It would also be possible, if desired, to have an unsubsidised loan scheme. This would involve setting interest rates at a level sufficiently high to cover the losses incurred on those loans that are not fully repaid and to cover administrative costs.

Ireland's public finances are managed in accordance with EU fiscal rules. Appendix 3 examines the implications of income-contingent loans for compliance with these rules. The raising of finance by the state for onward lending as student loans would increase the level of general government debt. The prospective annual impact on the debt to GDP ratio would not prevent the required ongoing reduction in the debt to GDP ratio provided a moderate level of nominal GDP growth is achieved.

In considering the introduction of income-contingent loans in Ireland attention would have to be given to the issue of emigration. It is clearly less easy to collect loan repayments from graduates who have emigrated and this issues has arisen in other countries that have introduced income-contingent loans. Options for securing repayments by emigrants are discussed in Appendix 3. Although a significant challenge, emigration would not represent an insurmountable obstacle to an effective system of income contingent loans. Student loans with more onerous conditions are taken on by many Irish students at present and lenders seek collection of these loans regardless of where the borrowers choose to live.

A final consideration is whether the introduction of income contingent loans would have an adverse impact on participation among those from low income families. At present students from low income families are not required to pay fees in relation to full-time undergraduate education while with income-contingent loans such students would be required to make deferred payments. There are also concerns about debt aversion among this cohort. However there is evidence from the UK and Australia indicating that participation by lower income groups was not adversely affected by the introduction of income-contingent loans. Furthermore, research by the European Commission and others indicates that when balanced with student support of various kinds, increased fees do not necessarily have an overall negative impact on enrolments in higher education³². In Ireland, movement in the opposite direction, the removal of tuition fees in 1996/97, was not followed by a significant narrowing of the participation gap between social classes.³³

In the UK there has been a decline in participation by part-time and mature students in recent years. The tripling of tuition fees that occurred in 2012 in England has been identified as a contributory factor in this decline (Independent Commission on Fees, 2015); only a minority of part-time students have access to income-contingent loans in England with which to pay these fees. This experience is not directly relevant to Ireland in that the level of tuition fees in England is much higher than the level contemplated in this report. However it does illustrate that part-time and mature students are more sensitive to fee levels. They generally have more financial commitments and less discretion in relation to disposable income. Some full-time mature students in Ireland at present undertaking undergraduate courses are eligible for tuition waivers on the basis of their own income. For this particular group of mature students a system of

³² Do changes in cost-sharing have an impact on the behaviour of students and higher education institutions?, EU Commission, 2014

³³ What did abolishing university fees in Ireland do? Kevin Denny, 2010

deferred payment with income-contingent loans would be less favourable than the current system as regards to tuition payments although such students would benefit from the enhanced student support proposed in this report. On the whole however there is potential in Ireland for the provision of income-contingent loans to provide improved support for significant numbers of students. As noted above, part-time and post-graduate students in Ireland are not eligible for the supports available to full-time undergraduates so that if income-contingent loans were made available to all such students this would support an improvement in access.

Chapter 6

Creating a Virtuous Circle of Investment, Quality and Verification

The invigorating benefits of a fresh focus on and insistence on quality teaching will be felt widely and rapidly if effective. They will be felt in complex ways from increased teacher professional fulfilment and satisfaction, to increased student satisfaction and retention, to better knowledge and skills transfer, more efficient use of resources, better learning outcomes etc.

The sum of the parts will be to harness a more confident, competitive and creative energy throughout the EU higher education sector, each institution giving its best, to the best of its ability, given its remit and conditions.

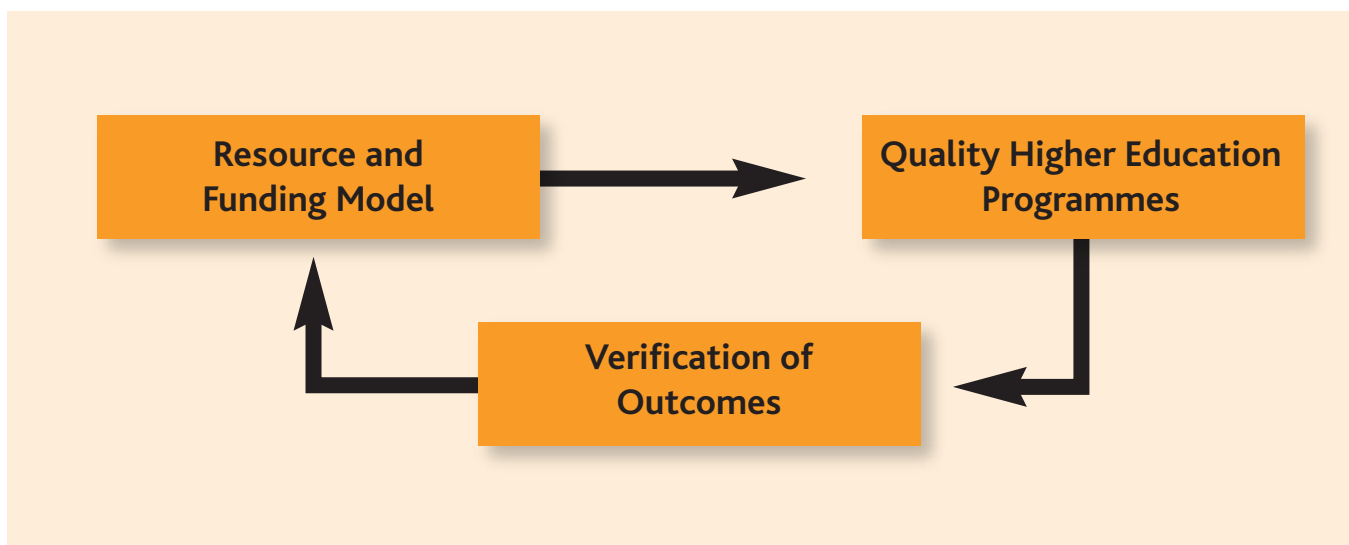
EU High Level Group on the Modernisation of Higher Education

6.1 Linking Investment with Quality and Outcomes

The necessary increase in overall funding must be, and can be, combined with two complementary developments. The central purpose of increasing the level of investment is to ensure that Irish higher education achieves the quality of scholarship, student experience and broader outcomes that characterises the advanced societies that Ireland compares itself with in the areas of skills, innovation and research. To ensure this, increased resources need to be combined with an enhanced focus on quality, flexibility and responsiveness across the system and with more fine-grained specification and verification of outcomes attained. This conditionality of increased resources was one which arose many times in consultations.

The virtuous circle in which investment, quality and verification are mutually supportive was outlined in Chapter 2 and is presented in simplified form in Figure 5.

Figure 5: Linking Increased Investment, Quality and Outcomes



While the central focus is naturally on the lack of resources in higher education, only with the second and third elements—will it be possible to generate positive feedback mechanisms which make it more feasible to deliver ambitious funding levels.

The actions outlined in this chapter are necessary to ensure that increased funding really does yield the improved student experience and learner outcomes, a more effective and responsive higher education system and the enhanced capabilities that Ireland needs.

They also have an important role in building a wide consensus on the need for increased investment and a willingness to seriously explore the options for delivering it. The more that students, families, employers and the state see that their goals are being met, the more they will support increased funding. Indeed, the more the goals of quality teaching, learning, knowledge creation, and innovation are achieved, the more national resources there will be to invest in higher education and other foundations of prosperity and social cohesion.

6.2 Resource and Funding Model: Ensuring Investment is Used Effectively

Before looking at the second and third elements of the virtuous circle (as shown in Figure 5 above), there are two elements of the resource and funding model that must be considered:

- Optimising the use of resources
- Allocation of funds

6.2.1 Optimal Use of Resources

Such a significant increase in overall funding must be accompanied by continuing and enhanced efforts to manage and optimise the cost base of Irish universities and institutes of technology. This is necessary under all three funding options, in order to ensure value for money for the state, students, graduates and employers.

The Expert Group recognise the achievement of the higher education sector in responding to deep cuts in unit funding and in staffing ratios of recent years. In this context resources were optimised out of necessity and were delivered through internal efficiencies and to a large extent pay reductions and non-filling of posts.

Looking to the future, there is an ongoing need to ensure that costs are carefully monitored and regulated, and a continuing drive for greater efficiency and effectiveness in the use of resources. This can be facilitated by more systemic and timely data published annually on the higher education cost base and meaningful comparison and benchmarking of costs across the sector. Institutional profiles and advances in institutional costing of activities can provide a basis for this.

The Expert Group recognise that the sector itself does not have full control of its cost base, in particular as pay levels are set centrally. However, there are a number of specific areas that the Group would like to draw attention to:

- The importance of monitoring and regulating course costs and student fees;
- There is greater scope for more coordinated and effective academic planning and provision across the sector, in particular within regions;
- There are opportunities for greater utilisation of facilities during off-peak times to cater for the growth in lifelong learning needs;
- There is a need for a more coordinated and regulated approach to the length of courses;
- There is a need for more consultation and joined up planning in determining the academic recognition requirements for some professions, including the impact on funding and students fees;
- The scale of the sector lends itself to development of shared services and it has a good track record to date and this needs to continue with a specific focus on back-office activities and the structured adoption of technology across the sector
- While recognising the sensitivities involved, institutions need to be given more flexibility in managing human resources. This includes the unwinding of the employment control framework, greater use of targeted redundancy and further development of consistently applied and measured workload allocation models.

Recommendation 8:

Building on existing initiatives, institutions must continuously seek to optimise the use of resources. This needs to be monitored within an enhanced regulatory framework.

6.2.2 Allocation of Funding

Reforms in the design of funding formulas can often be critical in producing greater efficiency and effectiveness³⁴. The Irish allocation mechanisms for core funding is considered to be stable, simple, transparent, and fair and is generally regarded as being effective and it is kept under regular review to ensure that it properly reflects national priorities for the system. Its design has encouraged the expansion of student numbers in recent years, but this has been at the expense of funding levels per student. From 2015 a new performance funding element has been introduced which allows for up to 10% of funding to be withheld in the event of poor performance against agreed objectives.

However, the higher education system has developed considerably since the main features of the system were designed and now faces a much more varied set of objectives. The allocation system was also designed at a time when there was virtually no student contribution and the remaining state grant in lieu of fees has become somewhat outdated. The overall effect has been the increasing dilution of the relationship between the HEA allocation level and the estimated costs of provision across particular disciplines.

³⁴ Art Hauptman, Journal of the European Higher Education Area, 2015, No. 4

The allocation of the state’s contribution to higher education will of course need to reflect the overall funding strategy adopted. Irrespective of which option is chosen, it is considered timely to comprehensively review the allocation formula for state funding to ensure it aligns with overall priorities and objectives for the system. This review should include:

- Grant in lieu of fees element;
- Discipline, access and part-time/flexible weightings;
- Consideration of weightings for strategically important and vulnerable provision, collaborative provision or other national priorities;
- Consideration of input, output and outcome metrics; and
- Approach to research and innovation

In relation to the last area – research and innovation. The Group is conscious that there is an ongoing debate around the block grant’s role in supporting research, the merits of having a combined block grant for teaching and research, the appropriate balance between teaching and research metrics used in allocations, and the effectiveness of the metrics used to recognise research performance. The Group is satisfied that the current approach of a combined grant for teaching and research is appropriate. However, the Group believes that attention now needs to be given to the appropriate methods for measuring research excellence and impact, drawing on international experience. This should involve consultation with research funding bodies.

Recommendation 9:

The current allocation mechanism for block grant funding should be reviewed by the HEA, in consultation with relevant stakeholders to ensure that it is structured so as to support overall priorities and objectives of the system.

6.3 The Quality of Higher Education Programmes

Our attention now moves to the second element of the virtuous circle. One of the central arguments of this report is that increased funding and improvements in the quality of higher education must be linked in a verifiable way.

Higher education institutions have a range of missions and objectives, and these are set out in the System Performance Framework³⁵. It is the view of the Expert Group that each of these—and, indeed, all of the inter-related goals and expectations of students, families, staff, employers, government, society—are critically and mutually dependent on the solidity of the foundation of objective 3 in that framework—high quality teaching and learning within Irish higher education institutions. This core objective is of a fundamentally different order of priority to the other objectives in the context of a discussion of funding contributions which might be made by students and employers. This was echoed in QQI’s Review of Reviews which identifies ‘the sustenance and enhancement of successful student learning as the central and compelling purpose of higher education’. Consequently, a renewed focus on the quality and relevance of students’ educational experience is vital.

³⁵ Higher Education System Performance Framework 2014 - 2016

The strong increase in funding is recommended on the basis that there is an enhanced focus on improving the quality of programmes, engagement with students and learner outcomes. This is the key to ensuring that higher education supports both individuals and Ireland's wider economic, social and cultural development.

It has not been possible for the Group to consider all aspects of quality in higher education and it is conscious that there is significant work under way in this area at agency and institutional level. However, two issues featured strongly in consultations :

- Enhanced focus on quality;
- Re-configuring the post-second level landscape; and

These have a direct effect on the capacity of additional funding to make a real difference on the impact and outcomes of higher education. These are discussed here.

6.3.1 An Enhanced Focus on Quality

The National Strategy for Higher Education set out a blueprint for improvements in teaching and learning, with a particular focus on student engagement, learning outcomes and the first year experience. A series of actions have been put in place to support this, including: national student and employer surveys, the establishment of the National Forum for the Enhancement of Teaching and Learning, greater coherence in the quality assurance system with the establishment of QQI, and greater cooperation between QQI and HEA. The HEA is also in the process of designing and rolling out of a new graduate outcomes survey which will capture data on graduates employment and educational outcomes. These system level initiatives are important in raising the focus on quality.

The Expert Group believes that the high level of commitment of staff in higher education institutions to their scholarship and the creation of quality programmes, engagement and learning outcomes is an invaluable resource which can be a key factor in linking investment, quality and verification. This reflects that quality is primarily determined in the lecture hall, lab, tutorials, research process and supervision, and by the involvement of staff with scholarship, students and outside stakeholders, staff morale and their willingness to contribute to the collective as well as pursue their individual careers. Movement towards a more engaged, small-group, high-trust, teaching and learning will put higher expectations on students, not only in their day to day work but in observing and owning their own learning progress.

There is now an increasing focus on the types of learning outcomes delivered in programmes. There is a better understanding that it is how students learn, as well as what they learn, that results in really successful outcomes for the learner. It is widely accepted that a strong mix of transversal skills combined with subject knowledge will enable people to succeed, not only by gaining and maintaining higher quality employment, but more generally in the course of their lives. The Expert Group welcomes the commitment in the National Skills Strategy that 'the quality of teaching and learning at all stages of education will be continuously enhanced and evaluated' and to undertake a review of quality in higher education.

Recommendation 10:

The review of quality in higher education announced in the Skills Strategy should take account of:

- The effectiveness of measures in place to support quality;
- The relevance and quality of learning outcomes, in terms of discipline specific knowledge and transversal skills;
- Approaches to the specification, measurement and evaluation of learning outcomes, competences attained and graduate progress; and
- Supports for frontline academics.

6.3.2 Re-configuring the Post-Secondary Landscape

The current system of post second level education in Ireland is imbalanced in two ways. It is overly focused on higher education at the expense of further education and it is overly geared towards the typical 18 year old school leaver undertaking a fulltime course. Both of these issues receive central attention in the National Skills Strategy. In addition, more needs to be done to ensure the development of more complementary missions within higher education sector.

Significant reforms are underway to ensure that Ireland's further education sector develops into a more coherent, relevant and focused provider and a valued alternative to higher education. The planned expansion of apprenticeships and a review of PLC provision is welcome, and will be central to providing a diversity of options to learners and a diversity in skills to the labour market. In tandem with the development of a strengthened further education sector, greater alignment, integration, and progression pathways between institutions in the two sectors is necessary. While efforts have been underway for some years, progress has been piecemeal. With the recent development of regional structures—the regional skills fora³⁶ and higher education clusters—there is now an opportunity to provide a more comprehensive and integrated offering to learners.

The second systematic issue relates to the take-up of lifelong learning. We know that the types of industries, jobs and required skills and competences are constantly evolving and people will need to continuously upskill and retrain to remain relevant in the labour market. This is now a key element of Ireland future skills development policy. Our current take-up is low at 6.7 per cent, well below the EU average of 10.7 per cent and the EU2020 target of 15 per cent. A greater culture of lifelong learning needs to be cultivated nationally and barriers to participation need to be addressed. Providers in both sectors need to make it easier for workers to engage with learning opportunities by providing a diverse range of flexibly delivered provision including part-time, online and modular learning. Funding arrangements can provide incentives for greater take-up, both at the student and institutional level. This will mean appropriate approaches to funding that support different types of part-time provision, module-based delivery systems, collaboration across education and training providers (including between HE and FE) and access by, and retention of, all potential lifelong learners.

A cross-cutting issue for both is the availability of high quality careers information and career guidance for people at all stages of their student and working lives. The National Skills Strategy highlights the 'need for accessible information for school goers and adults making career and course choices and for those that support and influence them in making these choices, including parents, guidance counsellors and teachers'. This is especially the case for school-leavers, with a high proportion of students not completing first year citing wrong course choice as the reason. The recently announced review of guidance services is welcome.

Recommendation 11:

Regional structures should be embedded and strengthened to support the development of an enhanced and integrated post-second level education offering, with coherent academic planning and clear student pathways.

A funding mechanism modelled on Springboard+ should be retained as a complementary funding stream to the block grant. It should be targeted at upskilling and reskilling opportunities for the unemployed and as the recovery continues for those in employment.

6.4 Verification of Outcomes

The third element which the Expert Group believe is necessary to justify and accompany a better resource and funding model is enhanced specification and evaluation of learning, competences attained and other outcomes which will strengthen the justification of increased investment. This is consistent with initiatives across the entire education and research system. This section highlights two aspects that are enhanced specification and evaluation of outcomes:

- More fine-grained data
- Support for front-line delivering and monitoring

6.4.1 Developing More fine-grained data

This will require more fine-grained data and an enhanced national data infrastructure as the foundation for analysis which must be supported by both the higher education institutions and the national system. Greater targeting and verification of improvements means that fine-grained monitoring at the front line within higher education institutions (involving both staff and students) is needed, alongside data generation at institutional and system level.

Indeed in the case of Funding Option Three this may impact on the cost of a system of income contingent loans in a tangible way. As explained in Chapter 4 (and in more detail in Appendix 3), in a system of deferred payment, a key parameter is the proportion of graduates that do not have to repay their student loans, because their incomes are too low, and the resulting 'default rate' or state subsidy. Many factors determine this percentage, among them the quality of programmes and engagement, student learning outcomes, progression rates, appropriate course choices, female labour force participation etc. Rather than take the default rate as given, the approach advocated here would make several of these factors the focus of data gathering, analysis, deliberation and adjustment.

Since 2014, there has been a sector wide performance management system for higher education. This system provides a framework for identifying objectives, setting targets and measuring and evaluating impact and outcomes across the range of system priorities. It also provides an opportunity for an ongoing dialogue between the HEA and institutions on the performance of higher education institutions. While this new system is welcome and provides a strong governance and performance management system for the sector, it is fair to say that this one tool alone cannot deliver the fine grained specification of where improvements are needed and capture the full impact of the sector.

There should be a greater focus on understanding pedagogies and monitoring their relation to learning outcomes, completion rates etc. at the level of relevant units and individual institutions. As stated in the National Skills Strategy, progress towards the vision 'will involve systematic evaluation of learner outcomes and the active participation of all'

6.4.2 Supporting Front Line Delivery and Monitoring

There are a range of initiatives and strategies being developed at a national and institutional level. These include compacts, clusters, T&L Forum and institutional strategies. However, it is not clear that these are sufficiently influenced by, or linked to, the front line.

There should be greater support for front line academic units and staff in focusing on outcomes and generating the information that can inform improvement of their teaching, learning and assessment strategies. Such enhanced institutional support for front line units is, of course, necessary, first and foremost, to allow a renewed focus on the quality of teaching, learning and scholarship. But it is also necessary if they are to increase their focus on the assessment

of promised competences and skills in a way that complements the traditional focus on assessment of knowledge.

In reviewing the planning processes there should be greater focus on the meaningful involvement of front line academic units in setting of strategies, targets and delivering outcomes.

These developments may, in turn, require the higher education colleges—and, indeed, the higher education community as a whole—to reflect and adapt, in a number of important aspects. There is need for discussion and clarification of what appropriate high-quality leadership, management and mentoring of academic staff looks like and how it can be valued and enhanced. Indeed, the Irish University Association is undertaking a project on the nature and challenges of leadership in higher education. Without effective and appropriate leadership there is a risk that the key goals—enhanced quality, flexible provision, greater specification and assessment of learning outcomes—will not be achieved. Deep and challenging changes are required in how academic and research programmes are structured and delivered to achieve the desired outcomes and impacts, in how academic staff time is allocated, protected and managed, in how staff are developed and rewarded; and to address the real career disincentives to staff in taking up leadership positions.

The Expert Group underlines the importance of a shared understanding of the nature and role of higher education and its contribution to society, economy, culture and public life. To ensure a link between investment, quality and verification there is also need to achieve a shared understanding of the vocation of the academic, and how their apparent freedom is balanced by deep relationships of duty and reciprocity to students, peers, and their discipline or field of inquiry. Inherent in these is a duty to the collective, rather than just the individual career, and to the future and not just the present.

There is a need for better alignment of funding and reward systems to support the behaviours and organisational changes that are effective in achieving high quality undergraduate education, supporting innovation, meeting employment and labour market needs and promoting wider access and successful completion by non-traditional students.

The focus on quality and fine-grained measurement would involve some adjustment in the system-level interaction with the higher education institutions (as encapsulated in the Compacts), the institutions' interaction with their front line units and staff, and the interaction between teaching staff and students. This can be understood as a system of 'triple-loop learning' or learning by monitoring, an approach that is increasingly used to achieve quality and accountability in spheres where engagement and innovation at the front line are the key to good outcomes and improvement (NESC, 2011, 2012).

It would involve focusing attention on the central and indispensable role of front line staff and units, and the relevance of outcomes and outcome measurement.

Recommendation 12:

There should be greater support for front line academic units in focusing on outcomes and generating the information that can inform improvement of their teaching, learning and assessment strategies.

Appendix 1

Terms of Reference and Membership of the Expert Group

The overall mandate is to identify and consider the issues relating to the long term sustainable funding of Higher Education in Ireland and to identify options for change for consideration by the Minister for Education and Skills.

It is envisaged that the overall work programme will be managed in six distinct modules:

- *Demand.* To spell out the anticipated demographic growth in the Higher Education sector, drawing on work previously undertaken by the HEA, DES, ESRI and elsewhere. To review projected labour market requirements for graduates and the resulting implications for provision of places.
- *Benefits.* To identify the benefits of higher education to the individual graduate and to the wider Irish economy and society – with reference to relevant research already underway. This work to include analysis of the economic and social benefits of greater levels of equity of access to higher education.
- *Income/expenditure.* To establish the total funding available to HEIs from the state, students, the EU, research bodies, philanthropy etc. The work will also establish the current cost base, encompassing pay, non-pay and capital expenditure.
- *Efficient and Effective Sector.* To report on efficiencies achieved by the sector during the 2009-2014 period, and to assess the potential for additional efficiencies to be achieved through the 2014-2019 period, and beyond.
- *Measuring financial performance.* The work will identify benchmarks of financial performance, including a consideration of the merits of operating a unit cost approach. These benchmarks will be designed to inform future analysis of institutional performance via performance compacts.
- *Long Term Funding.* The final module will provide an assessment of the long term funding requirements of the Higher Education sector, along with a set of funding options for consideration by the Minister for Education and Skills.

Group Membership

Peter Cassells, Independent Chairperson

Mary Doyle, Deputy Secretary General, Department of Education & Skills

Ronan Powell, Professor of Corporate Finance, University College Dublin

Tim Creedon, Former President, Institute of Technology, Tallaght

Joe O'Connor, Former President, Union of Students in Ireland

Brid Horan, Former Deputy Chief Executive, ESB

Sara Cantillon, Professor of Economics, Glasgow Caledonian University

Tom Boland, CEO, Higher Education Authority

Seán Rowland, President of Hibernia College

Neil Ward, Adviser to the Minister for Education & Skills

John Burke, Principal Officer, Department of Public Expenditure & Reform

Secretariat

DES: Laura Casey

HEA: Mary Armstrong

NESC: Rory O'Donnell, Larry O'Connell, Noel Cahill

Appendix 2

Current Funding of Irish Higher Education

A2.1 Introduction

This appendix outlines the funding context in which the Expert Group's work has taken place. It outlines the current funding of higher education both in terms of the funding provided to higher education institutions and to students and families.

A2.2 An Overview of the Higher Education System

Among the salient characteristics of the Irish higher education system is that over 90 per cent of its students attend institutions predominantly funded by the state. There are 33 higher education institutions in receipt of ongoing public funding, including 7 universities, 14 institutes of technology and 12 other institutions³⁷. 25 of these institutions are funded by the HEA, while the remainder receive funding directly from the Department of Education and Skills.

There are nearly 220,000 students in HEA funded institutions. 175,000 of these are undergraduate students and 150,000 of these are studying on a full time basis. 40,000 are postgraduate students and 22,000 are studying on a full time basis.

Ireland currently has a small but prominent private higher education sector. There are over 15,000 students in private institutions, with 80% of these in the three larger well-established colleges – Griffith College, Dublin Business School and Hibernia. The sector accounts for approximately 7% of the overall student cohort in Ireland at levels 6 to 9. Fees for undergraduate programmes are around €5,000 - €5,500.

Within public institutions the reliance on state funding has been reducing since 2008, as a consequence of a series of step increases in student contributions and corresponding reductions in state grants.

The Free Fees Initiative introduced in 1995/96, abolished tuition fees for first-time full time undergraduate students who meet certain eligibility criteria. A standard registration charge continued to apply to cover additional costs over and above tuition, such as the costs of examining and the provision of student services. This charge was initially £150 (€190) and was gradually increased over the years. With effect from the 2011/2012 academic year, a new student contribution charge of €2,000 was introduced and replaced the previous charge. This has been increased by €250 each year since then to the current rate of €3,000. However, as part of the student grant scheme, students that come from families with an income below a certain threshold (discussed in Section A2.4) have all or part of this charge paid for them by the state. In 2014/15, 48% of fulltime students (excluding non-EU students) had all or part of the contribution paid on their behalf by the State.

³⁷ The number of institutions in receipt of public funding has decreased as a result of institutional mergers over the last number of years.

A2.3 Institutional Funding

Table A2.1 illustrates the annual funding of public Higher Education Institutions from all sources³⁸.

Table A2.1: Funding of Irish Higher Education Institutions (2015)	
Funding Category	€ billions
Core Funding of Higher Education Institutions	€1.8
<i>of which</i>	
<i>direct state grants (incl. 'free fees' grant)</i>	€0.92
<i>Student Contribution (48% paid by state grants to students, 52% by students)</i>	€0.39
<i>Other Income and Other Fees (e.g. postgrad., part-time, international, repeat fees)</i>	€0.52
Contract Research Funding (73% State, 15% EU, 12% Other) ³⁹	€0.5
Ancillary Activities	€0.1
Capital Inflows to higher education institutions (70%-80% State grants)	€0.2–0.3
Total	€2.65

Increases in student contributions along with general reductions in overall state funding have resulted in a steady reduction in the proportion of total recurrent funding for core activities of higher education institutions funded by the state.

Figure A2.1 shows the breakdown of core income from the three main sources for the period 2008–2015 and highlights the movement in funding from public and private sources. This fell from 76 per cent in 2008 to an estimated 61 per cent in 2015. Figure A2.2 shows the changes in student numbers and income per student over the same period and underscore the nature of the funding challenge facing the higher education system. Despite increases in the student contribution to the current rate of €3,000, total income per student decreased by 22 per cent. Figure A2.3 shows the changes in student and staff numbers over the same period. Reducing staff numbers combined with increases in students has led to a significant reduction in the student:staff ratio.

³⁸ All data presented for public HEIs (funding, student and staff) refers to the 25 HEIs funded by the HEA only.

³⁹ Survey of Research and Development in the Higher Education Sector 2012/13, DJEI

Figure A2.1: Core Income of Publicly Funded Higher Education Institutions

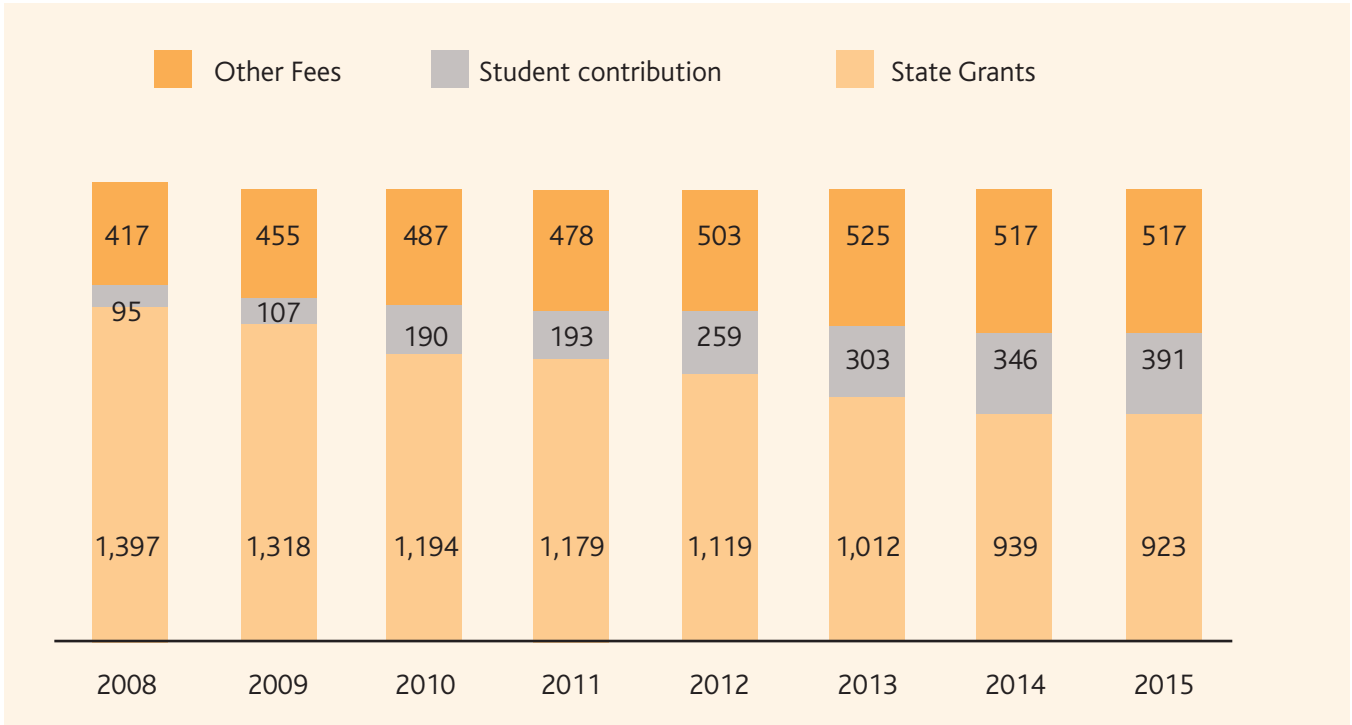


Figure A2.2: Student Numbers (Full-time Equivalents) and Core Income Per Student

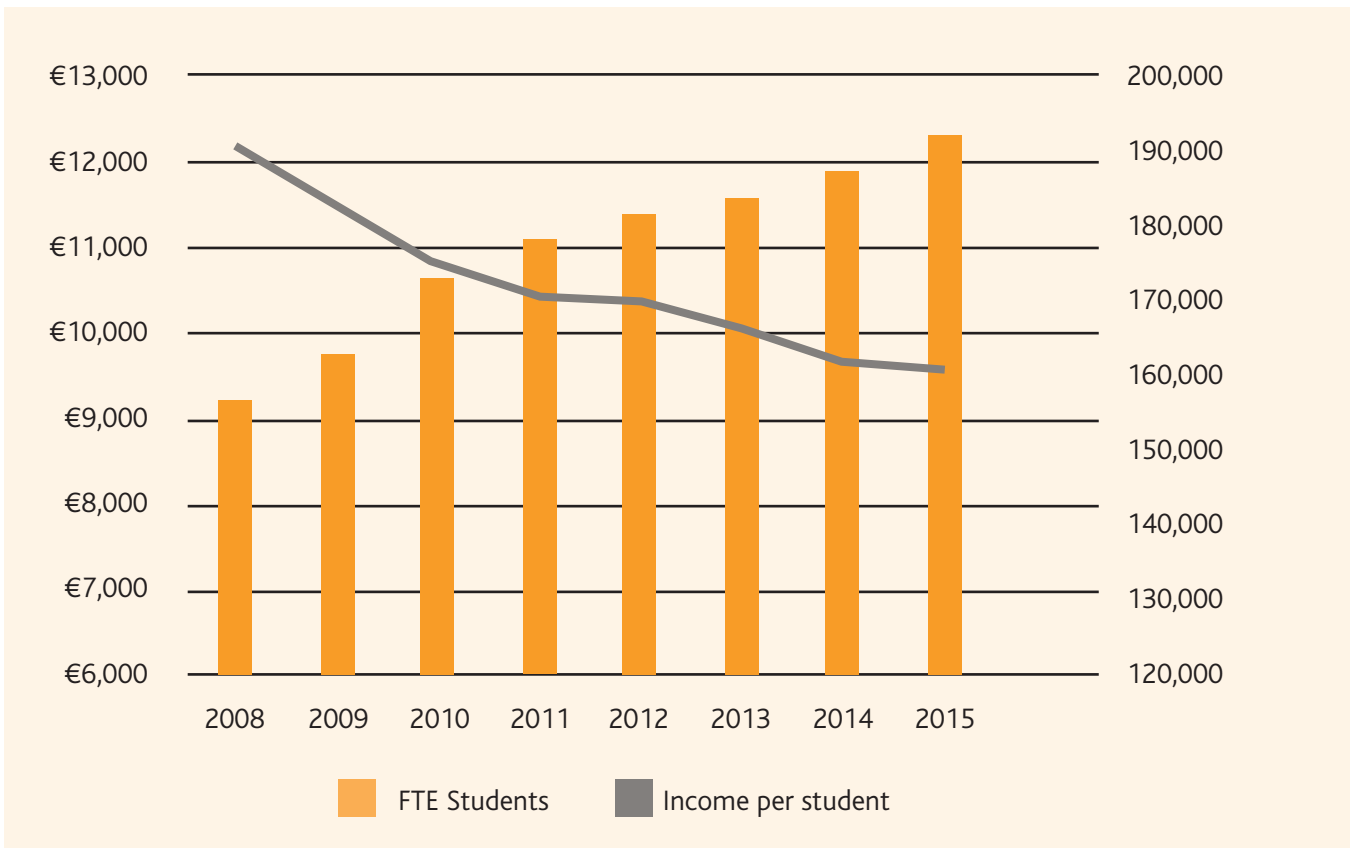
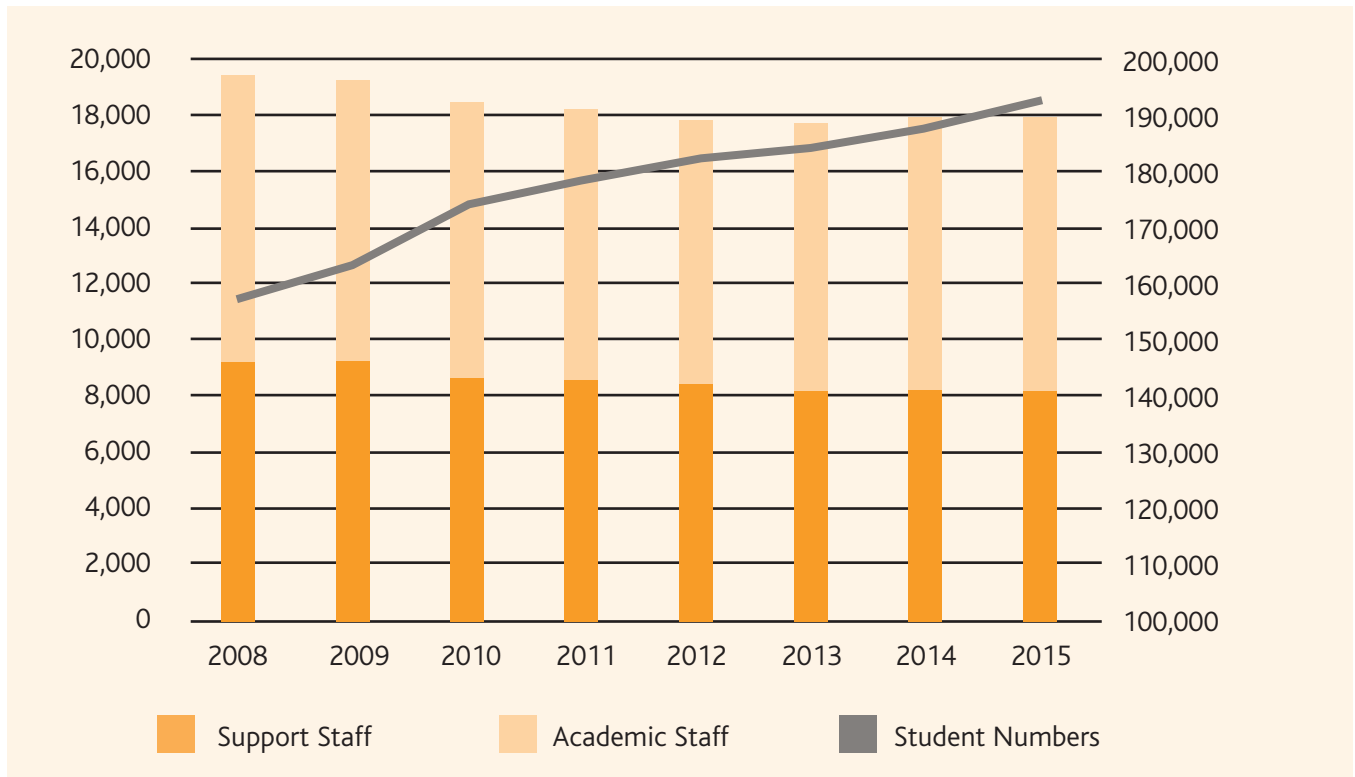
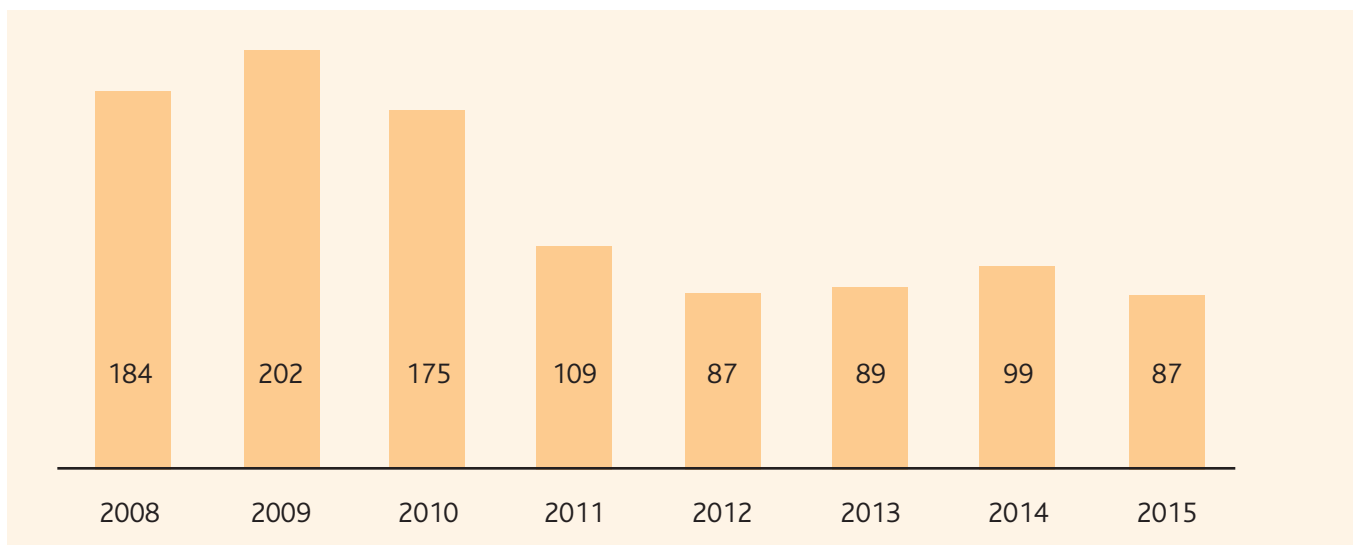


Figure A2.3: Student Numbers and Staff Numbers



Income for capital developments comes from public and private sources as outlined in Section 5.5. It is estimated that some 70% of all capital inflow comes from exchequer sources⁴⁰. In line with other areas of public expenditure, state investment in capital developments in the higher education sector has decreased substantially since 2008. Table A2.4 provides details of state capital funding under the Department of Education’s general higher education capital programme and the Programme for Research in Third Level Institutions (PRTLl).

Figure A2.4: Exchequer Capital Expenditure on Higher Education (€m)



⁴⁰ An analysis of HEI accounts for the period 2002-2011.

A2.4 Student Support Funding

The state provides targeted student supports to full time undergraduates and postgraduate students to help meet the costs of fees and living costs through a number of initiatives:

- **Student Grant System:** This is the primary financial support mechanism for students in higher education and those undertaking PLCs. It contains two elements—the payment on behalf of the student of the student contribution or tuition fee and a maintenance grant towards the costs of living. The level of grant awarded depends on the circumstances of the student and is based on the means of the student’s family (household income) and proximity to the higher education institution.

In the higher education sector, grants are primarily available to first-time, full-time undergraduates students. A grant towards the cost of tuition fees is also provided for full-time postgraduate students but support for living costs was abolished in 2013. Part-time students are not entitled to any support under this Grant System.

Details of the different supports available are outlined in Table A2.2. At present, families with less than four children qualify for some element of support provided the family income is less than €54,000. This relates to nearly 50% of all undergraduate students. Families with an income of less than €40,000 qualify for full support.

- **Student Assistance Fund & Fund for Students with Disabilities:** The Student Assistance Fund and Fund for Students with Disabilities are additional state supports for full time students who are experiencing financial difficulties whilst attending college or to allow students with a disability to participate fully in their academic programmes. The Funds are disbursed by local access offices and in 2015 funding amounted to €17m. Part time students do not have access to the Fund.
- **Scholarships and Bursaries:** €1.5m is allocated each year as scholarships to students on the basis of merit.

As can be seen from Figure A2.5, demand for student grants grew substantially since 2008 and overall funding levels have grown by over 30%. This resulted from increased numbers attending higher education, and a greater proportion of students qualifying for grant support. The composition of the student grant budget has also changed considerably and over half of all funding is now required to cover the cost of the student contribution of qualifying students. The maintenance payment element has reduced as a result of cost containing measures introduced over the recent period.

Figure A2.5: Student Grant Expenditure and Grant Holder Numbers

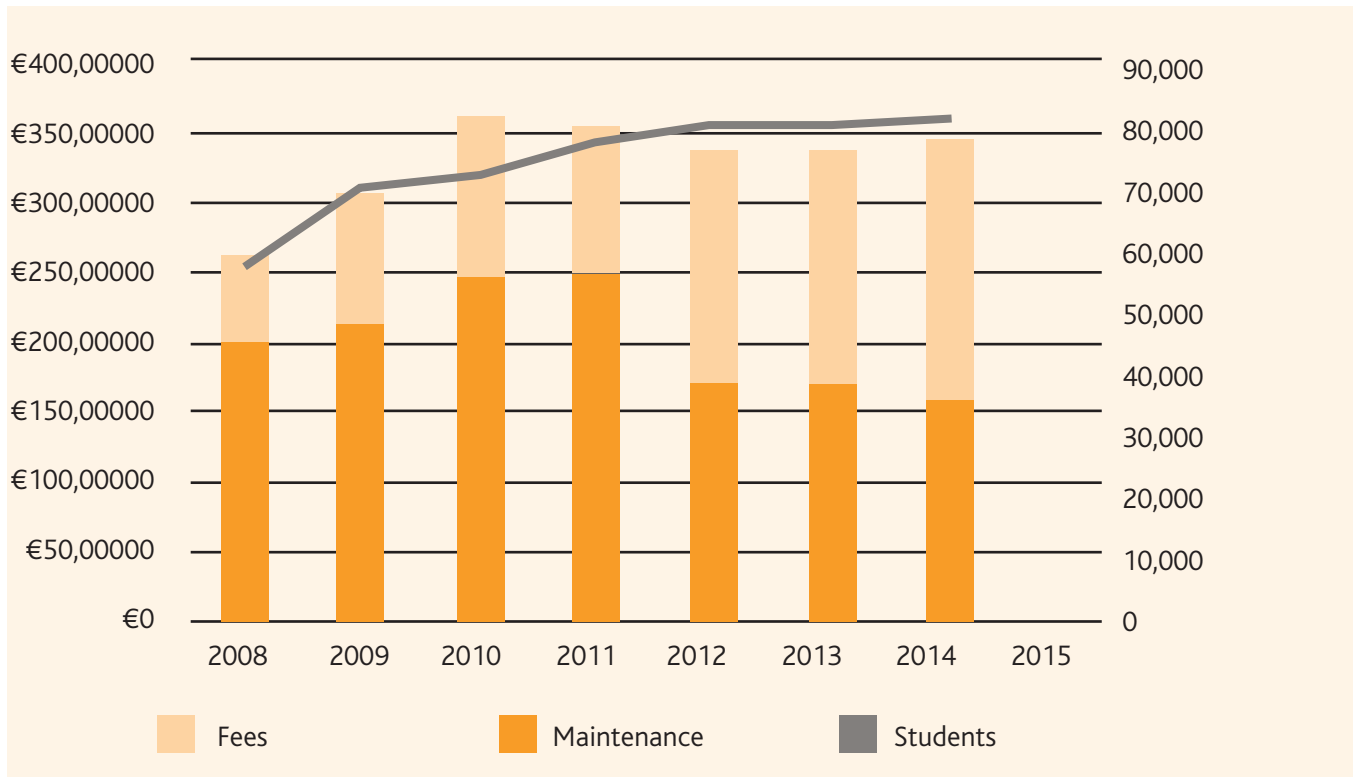


Table A2.2: Student Grant Award Categories

	Special Rate ⁴¹	Standard Rate	75% Standard Rate	50% Standard Rate	25% Standard Rate	Student Contrib. only	50% Student Contrib.	Postgraduate Fee contribution	
Student Contribution /Fees	100%	100%	100%	100%	100%	100%	50%	Max. €6,270	Max. €2,000
Maintenance Value:									
Adjacent:	€5,915	€3,025	€2,270	€1,515	€755	-	-	-	-
Non-adjacent⁴²:	€2,375	€1,215	€910	€605	€305	-	-	-	-
Income Thresholds:									
<i>Less than 4 children</i>	€22,703 ¹	€39,875	€40,970	€43,380	€45,790	€49,840	€54,240	€22,703 ¹	€31,500
<i>4 - 7 children</i>	€22,703	€43,810	€45,025	€47,670	€50,325	€54,765	€59,595	€22,703	€34,615
<i>8 + children</i>	€22,703	€47,575	€48,890	€51,760	€54,630	€59,455	€64,700	€22,703	€37,580

⁴¹ The grant holder must be in receipt of a specific social welfare payments

⁴² The distance limit for non-adjacent was increased from 24km to 45 km in 2011

Appendix 3

Analysis and Modelling Work on ICLs in Ireland

A3.1 Introduction

Income contingent loans (ICLs) are a type of student loan in which repayments are related to a graduate's subsequent earnings until the loan is repaid or in some cases forgiven after an extended period such as at retirement⁴³.

The Expert Group examined income-contingent loans in Ireland. In doing so it drew on work by Dr. Aedín Doris of Maynooth University. It also engaged intensively with the developer of the Australian programme, Professor Bruce Chapman.

This Appendix is organised as follows. Section A3.2 provides a brief discussion on understanding income contingent loans. Section A3.3 considers issues that arise in the design of an ICL scheme. Section A3.4 presents results on the modelling of a possible loan scheme for Ireland. This looks at ICLs both in regard to affordability for borrowers and the costs to the public finances. Section A3.5 examines a number of reservations concerning the introduction of ICLs in Ireland: (i) the challenge posed for repayment by emigration; (ii) whether an ICL scheme is consistent with the EU fiscal rules; and (iii) whether the replacement of fee waivers with ICLs would adversely affect participation by students from lower income families.

A3.2 What Income Contingent Loans Are Designed to Achieve

There are significant public and private benefits from higher education so there is a strong case that the costs should be shared between the state and students as discussed in Chapter 5. If it is accepted that students should make a contribution to the cost of higher education, the benefit of providing ICLs is that higher education remains free at the point of entry. No upfront payment is required. Students are required to contribute subsequently in those years in which their income exceeds a certain threshold. No repayment is required for a year in which income is low. Hence the required repayments take account of circumstances such as unemployment, illness or caring responsibilities. The provision of ICLs is the only policy measure that simultaneously combines cost sharing and education being free at the point of entry.

If fees are charged, access to third level education can also be facilitated by conventional student loans and many students currently avail of this option. However, this approach is problematic for a number of reasons. Access to such loans may be limited and if available they are expensive. Some governments use state guarantees to improve access to student loans but even when this is done there continue to be disadvantages from the student's perspective. First, repayments are a fixed commitment while students cannot know in advance their future ability to repay; meeting repayments may lead to hardship if future income is low due to circumstances such as unemployment, illness or low pay. Second, these pressures may eventually lead to default. This has adverse consequences for the borrower and fear of this may lead some not to pursue higher education if they must rely on conventional loans.

⁴³ Students who do not graduate would also be required to repay if their income exceeds the threshold at which repayment is required.

Chapman (2005) points out that ICLs solve both of these problems. The first problem is solved because 'repayment obligations are minimized or eliminated in periods of financial adversity' (Chapman, 2005: 18). In regard to the second problem, a major characteristic of a well-designed ICL is that it offers 'complete default-protection for borrowers and thus the capacity to solve an important part of the essential capital market failure for human capital investments' (18).

A3.3 Design of an Income Contingent Loans Scheme

The repayments required with an ICL accommodate borrowers' economic circumstances. The repayments required with ICLs for students are typically designed so that the loans are subsidised. There are two ways in which ICLs may be subsidised. First, repayments are not required when income falls below a certain threshold. This implies that some borrowers with low lifetime incomes are not required to make full repayments. Second, the interest rate charged may be lower than the cost to the state of raising the required finance. The interest rate subsidy may be provided across the board or targeted. In the design of an ICL there is a need to strike a balance between avoiding an excessive repayment burden for borrowers on the one hand and managing the cost to the state on the other. This balance will depend on the setting of a number of parameters of the loan scheme.

If funding Option III is selected, the following are the key choices that would arise in the design of an ICL:

- Coverage: whether to provide loans for undergraduate fees only or for all tuition fees and whether to provide loans for maintenance as well;
- The interest rate that would apply;
- The income threshold at which loans become repayable and the repayment rate that then applies;
- Whether upfront payment of fees is allowed and if so whether there is a discount compared to people opting for deferred payment;
- Provision for writing off of debt, for example at retirement;
- The arrangements to manage the scheme and collect repayments including payments from emigrants.

The issues of coverage, interest rates and upfront payments are now discussed. Emigration is considered in Section A3.5 below.

A3.3.1 Coverage

If an ICL scheme is to be developed for Ireland, the Expert Group recommends that the system of ICLs cover:

- undergraduate tuition fees, for full duration plus one year for contingency;
- part-time tuition fees on pro-rata basis;
- taught post-graduate tuition fees⁴⁴;
- private sector tuition fees.

The Group does not recommend that the system of deferred payments should extend to costs associated with maintenance. It believes that parallel improvements to maintenance supports are preferable.

⁴⁴ In the case of post-graduate courses greater proximity to the labour market and the availability of private finance might be considered to weaken the case for deferred payments. However, the Expert Group believes that a deferred payment system for post-graduates is necessary in Ireland. Students are deterred from undertaking higher qualifications because of the scale of the upfront fees which effectively locks them out of a range of careers and professions. This is evident in the social class gradient now emerging at post-graduate level. In practice the repayment terms would not need to be as heavily subsidised as for undergraduates.

A3.3.2 Interest Rates

If ICLs are introduced the Expert Group recommends that interest should be charged on these loans but at a rate lower than the cost of commercial borrowing. The charging of a real interest rate to borrowers does not increase annual repayments which depend on graduate income, the repayment threshold and the required repayment rate. A real interest rate increases total repayments by increasing the period over which repayments are required.

The Expert Group believes that the case for having an unsubsidised interest rate is strong. The interest rate has a significant influence on the costs of student loans to the public finances and is a key variable in ensuring these costs are kept to a reasonable level. Across-the-board interest subsidies are expensive because they imply losses on all loans even when full repayment is made (Barr and Johnston, 2010). Flannery and O'Donoghue (2011) estimated that the difference in the average level of loan subsidy between a subsidised and unsubsidised interest rate was 16.4 percentage points. The broader the subsidy, the higher the cost to the state. This could lead to a limiting of coverage of loans to contain this cost. A subsidised interest rate would point to a loan scheme that is limited in scale such as, for example, undergraduate tuition. An unsubsidised interest rate does not mean charging the same as a commercial bank. An unsubsidised interest rate means one that reflects the government's cost of borrowing. Such a rate would be considerably lower than a normal market rate for student loans. Consideration needs to be given as to the best way of setting the interest rate so that it reflects the government's cost of borrowing.

One concern that arises with charging an unsubsidised interest rate is that some lower income borrowers end up having higher total lifetime repayments compared to higher income borrowers. This effect is evident in the modelling work undertaken for the Group. It arises for borrowers whose incomes are sufficiently high to repay all or a large part of their loans but only over a relatively long period. The long period of repayment results in this group paying more interest than higher income borrowers who can repay their loans faster.

There are a number of ways in which this concern can be either wholly or partly addressed (see Chapman and Higgins, 2014). One possibility is to use a tiered interest rate structure with a lower interest rate applying at low income levels as is the case in England. Another is to levy real interest upfront in the form of a surcharge rather than a conventional interest rate; this approach is used in Australia in its FEE-HELP⁴⁵ programme. If real interest is collected in the form of a surcharge it means that all borrowers repay the same amount of interest regardless of how long it takes. This may be considered inefficient (there is no incentive to repay early) but it has the benefit that lower income borrowers who take a long time to repay do not pay any more interest.

⁴⁵ FEE-HELP is one of a number of loan schemes in Australia's Higher Education Loan Programme (HELP). FEE-HELP is typically used by post-graduates to pay tuition fees.

A3.3.3 Upfront Payment

The Expert Group is of the view is that, if ICLs were introduced in Ireland, the option for upfront payment should remain. Removing this option would be a limitation of choice and the Group does not believe that this would be justified.

If upfront payments are permitted this means that those who are in position to make such payments pay less over their lifetime for their higher education compared to those who take out ICLs when one takes account of interest. Since it is those whose parents have higher incomes who are more likely to be able to pay upfront, this implies that some students from well-off families will pay less than other students for their higher education. This may be viewed as unfair. However, this problem of fairness arises from the distribution of income. Higher income parents are in a position to confer advantages of various kinds on their offspring. The ability to pay fees upfront is one such advantage. However if wealthy parents with this capacity are restricted from paying fees upfront they are free to use their resources to confer benefits in many other ways; for example, greater help with living costs; financial support while an unpaid internship is pursued at a later stage; payment of private schools fees at primary or secondary level etc. Eliminating an upfront payment option merely restricts one particular form of intergenerational transfer.

A benefit of upfront payment is that it would reduce the scale of government borrowing needed for a loan scheme. Insofar as interest rates are subsidised, upfront payments contribute to lower costs.

If upfront payments are permitted the issue arises as to whether those availing of this option should receive a discount. The provision of a discount is equivalent to requiring students not availing of the deferred payment option to pay a surcharge. This would need to be decided as part of the setting of interest rates. As noted above a surcharge is a possible (but not the only) way of addressing the regressive effect of a real interest rate.

A3.3.4 Further Work

Further work will be required on the appropriate design of an ICL scheme for Ireland. There are several factors that affect the final costs for the state and borrowers. These include:

- The cost of government borrowing/the level of discount rate used;
- The interest rate for borrowers;
- The income thresholds above which repayments are required;
- The employment rate and earnings of borrowers;
- The rates of repayment; and
- Arrangements for writing off debt.

Further analysis would also consider institutional issues, including:

- Funding of Irish income-contingent loan system (including balance sheet and deficit implications);
- Management and administration of an Irish ICL scheme;
- The loan collection and repayments system; and
- Arrangements to deal with emigration.

If it is decided to introduce ICLs for higher education, the Group recommend the establishment of an implementation team that would design the deferred payment scheme. This would look at key parameters associated with the scheme and the institutional issues. The issue of emigration is discussed below.

A3.4 Modelling of an Income Contingent Loans Scheme for Ireland

This section provides an illustration of the potential implications of an ICL scheme for both borrowers and the public finances. The following assumptions have been used to model the introduction of ICLs in Ireland⁴⁶:

- Two levels of loans are examined: Student makes a deferred payment of €4,000 or €5,000 annually for four years of study giving rise to total loans of €16,000 or €20,000
- The income threshold over which repayment begins is €26,000.
- Repayment rates: Two scenarios are considered
 - A repayment rate of 8 per cent on *marginal* income above the threshold.
 - Repayment rates of 2-8 per cent of *total* income when income rises above the repayment threshold with the 8 per cent rate applying when income exceeds €56,000.
- Interest rates: Two scenarios are considered
 - Zero per cent real interest rate whereby the outstanding loan balance is adjusted for inflation; and
 - A 2 per cent real interest (i.e., inflation plus 2 per cent) when income is above the repayment threshold. When income is below the threshold there is no real interest charged (i.e., interest is equal to inflation). No interest is charged while students are at college.
- Discount rates—Three scenarios are considered—0, 1 and 2 per cent rates.
- Projections of lifetime graduate earnings were developed using data from the 2006 National Employment Earnings Survey (NES) as the NES contains enough individuals to model graduate earnings in the detail required. Of the NES surveys that are available, the data from the 2006 survey is closest to the average earnings for graduates reported in the most recent HEA survey of graduate starting salaries. Earnings rise with age but other than that no real earnings growth is assumed. Insofar as there is such growth (beyond that captured by age) it will increase repayments and reduce the costs to the public finances.
- In this modelling it is assumed that all students graduate; i.e., there is no non-completion. In practise those who do not complete would have both lower loans and lower incomes. These two effects may offset each other in terms of their implications for loan repayment.
- There is no upper age at which debts are written off. However, it emerges from the modelling that there are no repayments after age 57. By that stage loans are either paid off or income, which tends to fall as retirement approaches, is too low for any repayment to be required.

⁴⁶ This modelling was undertaken by Aedin Doris of Maynooth University for the Expert Group.

A3.4.1 Affordability for Borrowers

The tables at the end of this appendix show patterns of repayment for both men and women by income percentile⁴⁷ across a range of scenarios (see Tables A3.3 to A3.10). There are differences in average earnings between men and women and this leads to differences in the projected pattern of repayments. It is a strength of income contingent loans that repayments reflect differences in earnings.

The repayments required in an ICL for loans of either €16,000 or €20,000 based on the parameters set out above are generally modest. For example, for women at the 50th percentile with a €16,000 loan at 2 per cent interest, the average monthly payments would be €104 (3.8 per cent of net income) in real terms over the lifetime of the loan. With an ICL, payments rise over time as incomes rise (see Table A3.1). If the size of the loan were increased to €20,000 average monthly repayments over the term of the loan are much the same at €112 while the period of repayment increases from 15 to 18 years. Payments required while people are in their 20s are considerably lower with the corresponding monthly payments for women at €61 monthly⁴⁸.

Whether the interest rate is 0 or 2 per cent in real terms has limited effects on annual or monthly payments. The effect of the interest rate manifests itself in the form of longer repayments. For example, the calculations show that men in the 50th percentile would repay their loans (€16,000) in 13 years with a zero real interest rate while this rises to 15 years with a 2 per cent interest rate, based on the marginal income repayment schedule.

Table A3.1: Repayment Results for Women by Income Decile for €16,000 Loan with 2 per cent Real Interest

	10th	20th	30th	50th	70th	80th
% Loan Repaid	-5.2	4.0	100	100	100	100
# Years Payment	4	26	25	15	14	12
Age Final Payment	52	54	51	39	35	32
Mean % Gross Income	0.4	1.1	2.2	2.8	2.9	3.0
Mean % Net Income	0.5	1.3	2.8	3.8	3.9	4.2
Total Repayments	€469	€9,119	€20,607	€18,459	€18,620	€18,195
Total Discounted by 2%	€245	€5,531	€13,388	€13,929	€14,782	€15,076
Total Discounted by 1%	€338	€7,068	€16,548	€16,209	€16,418	€16,549
Mean Monthly Payment (when not 0)	€10	€29	€69	104	111	€126
Mean Monthly Payment, Age 21-29	n/a	€13	€36	€61	€85	€126
All deciles above the 30 th pay loan in full						

Source: Provided by Dr. Aedín Doris of Maynooth University.

Note: This table is based on repayment of 8 per cent on marginal income above an income threshold of €26,000.

⁴⁷ Income percentiles are created by first ranking all persons in the population in ascending order according to income, and then dividing the population into 100 equal groups. The income of the person at the cut-off between the 10th and 11th groups is referred to as the 10th percentile; similarly, the income of the person at the cut-off between the 50th and 51st groups is called the 50th percentile. Of the percentiles included in the tables shown here, the 10th has the lowest income and the 80th has the highest income. The population here consists of a cohort of graduates. Note that in practice, earnings were modelled for 20 percentiles rather than 100.

⁴⁸ This example refers to repayments of €16,000 loan based on marginal income above the threshold of €26,000.

The same repayment parameters have been used for the €16,000 and €20,000 loans. This implies that most of the time the monthly or annual repayments required are identical. The difference is that it takes longer to repay loans with an increase of one to four years and corresponding increases in total repayments. For example, for women in the fiftieth percentile it takes 15 years to repay a €16,000 loan at 2 per cent real interest while it takes 18 years to repay a €20,000 loan⁴⁹.

The lower the income threshold for repayment, the higher the average monthly repayment. In the modelling undertaken for this report the income threshold at which repayment is required was set at €26,000. A lower threshold would increase monthly repayments but also reduce the time over which repayments are made. When income exceeds the threshold, repayment is required based either on a percentage (8 per cent) of income above the threshold or based on a percentage of total income (2-8 per cent). Results in the tables below are presented for both of these possibilities. Repayments are faster when based on total rather than marginal income. For most people there is not much difference in terms of total repayments. However, for the lowest two income categories payments are substantially higher when based on total rather than marginal income.

Monthly payments increase as one moves up the income percentiles. Monthly repayments for people in the lower income groups are very low while people are in their 20s. For example in the 30th percentile the required monthly payment for men in their 20s with a loan of €16,000 and a 2 per cent interest rate is €27 (repayment based on marginal income). However the corollary of lower monthly repayments is that those in the lower deciles take longer to repay their loans and hence, if interest is chargeable, repay more in total. This raises a distributional issue when real interest rates are charged. For example, with a €16,000 loan at a 2 per cent interest rate, men in the 20th decile will have total real repayments of €19,015 compared to total repayments of €17,046 for those in the eightieth decile (with repayment based on marginal income). The tiered interest rate structure that has been adopted in this modelling exercise (i.e., no real interest is charged when income is below €26,000) significantly diminishes but does not eliminate this effect. The effect could be eliminated if required by charging interest in the form of a surcharge upfront and then only charging interest equal to inflation as noted above (see Chapman and Higgins, 2014).

A3.4.2 Costs to the Public Finances

Two aspects of the public finance costs are considered here. First, there is the cost arising from non-repayment of loans. Since ICLs are based on graduate incomes and include a threshold below which payment is not required, some element of non-repayment is a design feature of the system. Second, a further potential cost arises if an interest rate subsidy is provided. The administrative costs of student loans are not included in this analysis. However international experience of ICLs is that administrative costs are very low. The collection of repayments through the tax system minimises these costs.

The costs to the public finances vary according to the parameters mentioned above: the size of loan, the interest rate charged to borrowers, the repayment rate, the income threshold used and whether payments are based on marginal income above the threshold or on total income.

⁴⁹ Repayments are higher at the end of the loan repayment period (when incomes are higher) so that the average monthly repayment over the lifetime of the loan is somewhat higher when the size of the loan increases to €20,000.

Two other factors that must be considered when assessing the cost to the public finances are: emigration and the discount rate applied to future repayments. The discount rate is relevant because the state issues loans upfront that are repaid later. The discount rate is used to put a value today on repayments that are made by borrowers in future. The discount rate is explained further below.

An additional factor that affects repayment is emigration. There is major gap in our knowledge concerning the level of graduate emigration. HEA surveys measure the percentage of graduates in employment abroad nine months or so after the completion of their studies. According to the most recently published of these surveys, 12 per cent of graduates (honours, undergraduate degrees) were in employment abroad in 2013; this had increased from 5 per cent in 2008 (HEA, 2014). However, there is no information available on how long emigrants remain abroad and on how many emigrate subsequent to those recorded in the HEA survey. A second source of uncertainty concerns the prospective repayment pattern of emigration. As with other loans, the obligation to repay would not end with emigration and it will be important to develop effective arrangements to secure this repayment.

These issues mean that it is not possible to model emigration of graduates with any degree of certainty. However, to provide an illustration of the possible cost effects of emigration, a scenario has been constructed. In the emigration scenario it is assumed that 10 per cent of borrowers emigrate on a permanent basis and that no repayments are made⁵⁰. In any given year a further 10 per cent are assumed to be abroad and do not repay while abroad but repay when in Ireland. It is permanent rather than transitory emigration that is of most concern from the perspective of future repayments.

The role of the discount rate in estimating the cost of the subsidy can be illustrated with a simple example. Suppose a student loan is issued for €10,000 and is repaid in full in ten years with no interest; i.e., €10,000 is repaid. The value of €10,000 in ten years' time is less than its value today. The discount rate is used to calculate this. For a government student loan scheme, the logical discount rate would be the government's cost of borrowing over the relevant term. For a given interest rate charged to students, the estimated cost to the public finances is highly sensitive to the discount rate or assumed cost of government funds.

The cost of government borrowing varies over time so it is not obvious what the most appropriate discount rate to apply is. Once a particular tranche of loans has been issued to a cohort of students the government cost of this funding is fixed although the real cost will still depend on future inflation as Irish government bonds are issued on the basis of nominal rather than real coupons. It would however be possible to fund student loans using index-linked bonds; index linked bonds are used in the UK to meet a considerable share of government funding and the real yields on these bonds have been lower than for conventional bonds. According to Shephard (2013) the median real yield on UK index-linked bonds was around 1.1 per cent in the previous 13 years and Shephard proposes this rate as the appropriate discount rate to use in the costing of the UK's ICLs⁵¹.

The level of the discount rate has been the subject of a lot of discussion in England and has resulted in wide variations in the calculation of the public subsidy on loans. Over time the discount rate used in the calculation of the cost of student loans has been revised downwards in the UK. It has been reduced from a real rate of 6.0 per cent to 3.5 per cent in 2003 and then to 2.2 per cent from 2005-06. It was recently announced that it is to be reduced to a real rate of 0.7 per cent to bring it line with UK government's long run cost of borrowing (HM Treasury, 2015). In the US a separate rate is used in relation to each loan cohort in order to reflect the actual cost of finance for each cohort.

⁵⁰ An assumption of permanent emigration of 10 per cent with no repayment would be equivalent in terms of repayments to assuming 20 per cent permanent emigration with a 50 per cent repayment rate.

⁵¹ For a substantial part of the past three years the real rates on return on 30-year index linked bonds in the UK have been negative; i.e., investors have been willing to buy bonds on terms that offer a return that, if held for the full term, is guaranteed to be less than inflation. Such bonds have been in strong demand from pension funds who need to match their liabilities with inflation linked assets (Worah *et al.*, 2015).

In Ireland, current government bond yields are now very low in nominal terms so that it is possible that the cost of finance raised at current low yields could turn out to have a real (after inflation) cost not far from zero. The current low costs can be expected to increase in time.

Estimated subsidy costs across a range of scenarios are presented in Tables A3.11 and A3.12. The estimates show the percentage of a loan not repaid measured in present value terms. For a €16,000 loan the estimated subsidy cost arising from non-repayment is 22.1 per cent assuming 20 per cent emigration as discussed above and with repayments based on marginal income over the threshold and no real interest payable. This means that 22.1 per cent of amount lent is not repaid. However, if one takes account of the government's cost of finance this cost may increase depending on the interest rate charged. For example, with a 0 per cent interest rate and a 2 per cent discount rate for loans of €16,000 and making an allowance for emigration, the estimated subsidy cost is 41.0 per cent (also shown in Table A3.2)⁵². An interest subsidy arises from the fact that borrowers pay 0 per cent real interest but the assumed cost of this finance to the state is 2 per cent. The cost of the subsidy is significantly affected by the interest rate charged. If borrowers pay 2 per cent real interest rather than 0 per cent, the estimated discounted cost of subsidy falls to 32.1 per cent.

Even when a 2 per cent interest rate is charged and the discount rate is 2 per cent there is still a partial interest subsidy for two reasons. First, in the assumptions made in these calculations, no interest is charged while students are still at college. Second, no real interest is charged (but nominal interest would apply) when incomes are below €26,000.

It can also be seen that the subsidy estimates are highly sensitive to the discount rate used. If the interest rate paid by borrowers is 2 per cent, then with a 0 per cent discount rate the subsidy is only 8.4 per cent while it is 21.3 per cent using a 1 per cent discount rate.

Table A3.2: Estimated Subsidy Costs for Income Contingent Loan of €16,000, Repayment Based on Marginal Income and Emigration of 20 Per Cent

	0% Discount Rate	1% Discount Rate	2% Discount Rate
0% interest rate	22.1%	32.4%	41.0%
2% interest rate	8.4%	21.3%	32.1%

Source: Prepared using information provided by Dr. Aedin Doris of Maynooth University.

Subsidies are lower if based on total income rather than marginal income. However a disadvantage of using an average repayment schedule is that it results in people in the lowest income decile having substantially higher repayment burdens.

The provision of loans of €20,000 rather than €16,000 has a modest effect on subsidy costs. In the case of the 2 per cent interest and discount rate scenario with emigration and repayment based on marginal income, the estimated subsidy is 33.5 per cent (compared to 32.1 per cent for the comparable €16,000 loan scenario).

More generally, it is important to emphasise that any estimated subsidy cost reflects a series of assumptions about future employment earnings and income distribution as well as repayment parameters. The results presented here did not assume further underlying real income growth. From this perspective these results can be understood as worst-case scenarios.

⁵² In this example, repayments are based on marginal income above the threshold.

The estimated cost of subsidies presented here are similar to earlier work by Flannery and O'Donoghue (2011) on ICLs when using the same interest and discount rates without emigration. Where no real interest is charged and a 2 per cent discount rate is used, the average subsidy as estimated by Doris is 33.2 per cent (marginal repayment, €16,000 loan) while the comparable estimate by Flannery and O'Donoghue was 35.2 per cent⁵³.

A3.5 Some Considerations about an Income Contingent Loans in Ireland

Three issues that arise in relation to the introduction of ICLs in Ireland are as follows:

- (i) **Emigration:** would graduate emigration undermine the effectiveness of an ICL scheme and might such a scheme create incentives for emigration?
- (ii) **National debt:** would a student loan scheme, which adds to national debt, be feasible within the EU fiscal rules?
- (iii) **Impact on participation by certain groups:** would the replacement of fee waivers with ICLs adversely affect participation by students from lower income families?

In this section we discuss each of these issues. The final part of this section also discusses access by part-time and mature students.

A3.5.1 Emigration⁵⁴

A concern with the introduction of ICLs in Ireland is the possibility that the difficulty of collecting repayments from graduates would lead to high level of default. This could be exacerbated if ICLs were to become a push factor leading to higher emigration. For domestic residents, it is envisaged that repayments would be collected through the tax system. This method cannot be applied to those who emigrate. Students from other EU member states would be entitled to ICLs if they were provided in Ireland and it would be very challenging to pursue nonpayers who return home to other EU countries (Bekhradnia, 2014).

The issue of emigration arises in other countries (including the UK, Australia and New Zealand) that have introduced ICLs but has not undermined the effectiveness of their loan schemes. Until recently in Australia repayments were not sought from emigrants. It was estimated by Chapman and Higgins (2013) that there were revenue losses of at least A\$20-30 million (roughly €13-20 million) from each newly graduating cohort arising from emigration. It is of particular concern in New Zealand where there is a high level of graduate emigration. New Zealand has recently adopted new measures for repayment of loans from borrowers based overseas (see below).

⁵³ The size of loan examined by Flannery and O'Donoghue was lower (€10,000). In the case of a 2 per cent real interest rate and a 2 per cent discount rate, the subsidy estimated by Doris was 23.8 per cent (payments based on marginal repayment) while the estimate by Flannery and O'Donoghue was lower at 18.6 per cent. There are two relevant factors to note here. First, in the 2 per cent interest scenario modelled by Doris, the 2 per cent real interest only applied when income was above the threshold so that the average effective rate is below 2 per cent. Second, there is a difference in the time periods used for discounting. In the case of Doris it was assumed that the government committed all of the money two years prior to graduation so that results are discounted by years after graduation plus two while Flannery and O'Donoghue discounted their results to the year of graduation of each graduate thus not reflecting the interest cost to the state of issuing money in the years prior to graduation.

⁵⁴ This sub-section draws on Chapman (personal communication).

There are three potentially workable options that could be adopted to ensure emigrants meet their repayment obligations:

- (i) Putting in place mutual tax agreements with the countries that our graduates are likely to go to;
- (ii) Require by law overseas debtors to provide information on their annual incomes while they are away and to pay the commensurate student debt to the tax office on the basis that they would have faced if this income was earned in Ireland; and
- (iii) Require by law all debtors going abroad to pay a minimum amount of their student debt each year, say €1,000; i.e., switch to a fixed-term payment plan for those who are abroad.

A considerable shared commitment among countries would be required to put (i) in place. There is potential for EU countries to work together in relation to enhancing repayments from over overseas borrowers. Initial work is underway between some EU countries at present in regard to best practice, data sharing and mutual cooperation. This is a positive development. However it cannot be assumed that this cooperation will evolve to the point of legal agreements for the mutual collection of ICL payments through tax systems. Even if this happened among some European member states the issue would still arise in regard to other emigrant destinations. Hence other options need to be considered.

The second option has potential. It has just been passed into legislation in Australia, so it is not known yet if it will work there. It has been adopted in the UK. With the UK student loan system, borrowers who are abroad for more than three months are required to fill in an overseas assessment form with details of prospective income. Repayments continue to be based on income while the threshold is adjusted to take account of living costs in the country concerned. It has had partial success. The repayment status of overseas borrowers with UK ICL loans that were potentially liable to make payments in April 2014 was as follows: 31 per cent were repaying, 27 per cent were in arrears while 43 per cent had incomes below the repayment threshold. While 31 per cent repaying may seem low it is worth noting that with an ICL scheme, at any given point one expects a share of borrowers not to be repaying even with full compliance. The percentage who ultimately repay will be higher. This approach maintains the principle of income contingency although income and payments will not be as closely aligned as they are for domestic residents. It would mean that debtors in low income work overseas (including those engaged in volunteer work) would not be required to make repayments.

Option (iii) is the simplest policy and has been advocated by, among others, Bruce Chapman. However, the simplicity comes at the cost of abandoning income contingent repayment, which could perhaps be modified by allowing those who can establish low incomes to be excused from payment. New Zealand has recently adopted this system, although they have made it more complicated than this by having the repayment obligation a percentage of their outstanding debt.

In the case of both (ii) and (iii), all debtors would be required to register when they leave the country. While some leave permanently, almost everyone will come back for a visit and those not meeting the obligation can be identified and pursued when they return⁵⁵.

⁵⁵ There would be a lower probability that EU citizens of other member states who return home would return to visit Ireland.

Emigration would pose challenges for the introduction of ICLs. However it does not represent an insurmountable obstacle. Student loans with more onerous conditions are taken on by many Irish students at present and lenders seek collection of these loans regardless of where the borrowers chose to live. In the section above on the possible costs of an ICL scheme for Ireland allowance is made for emigration to increase the level of non-repayment.

Unless a working international agreement is in place, the adoption of an ICL system in Ireland would require either option (ii) or (iii) to be in place. Option (ii) is more complex than (iii) but has the considerable attraction of maintaining the income contingency approach. A secondary benefit is that it could facilitate the development of mutual arrangements with the UK at least.

A3.5.2 EU Fiscal Rules⁵⁶

The second reservation noted above concerns the compatibility of an ICL with the EU fiscal rules. The implications of an ICL scheme for the general government deficit, expenditure and debt need to be carefully considered. Ireland's public finances are required to be managed in accordance with EU fiscal rules that set limits on these measures. Estimates of the potential costs to the public finances of an ICL are presented in Section A3.4 above.

General Government Accounting

Generally loans made by a government are regarded as a 'financial transaction' in which an asset is acquired rather than expenditure that contributes to the deficit; consistent with this, principal repayments are not treated as government revenue either. However ESA 2010 introduced a new treatment for standardised loan guarantees, such as student loans guarantees. As the loans are many and similar a reliable estimate of default can be predicted. The estimated default is to be considered expenditure at the time the loans are granted and will therefore have an impact on the deficit⁵⁷. In the case where the loans are made by government and not a commercial bank this would still be the case.⁵⁸

In the case where loans under the ICL are at low interest rates it is considered that the impact on the deficit will be reflected in the national accounts as the difference between the cost of government financing and the return on the low interest loans and therefore no further adjustment is required⁵⁹.

Finance raised by government for onward lending as student loans would add to the level of general government debt.

Fiscal Rules

From 2016 onwards the public finances in Ireland are subject to the preventive arm of the SGP and the Treaty on Stability, Co-ordination and Governance in the Economic and Monetary Union (the 'Fiscal Compact'). The three rules from the Fiscal Compact are the budgetary rule, expenditure benchmark and debt rule.

Budgetary Rule

Ireland is required to make progress towards its Medium Term Objective (MTO), which currently is to achieve a balanced budget in structural terms. The rate of progress, or the adjustment path, as it is known is set in accordance with the

⁵⁶ This text was provided by the Department of Finance.

⁵⁷ Manual on the changes between ESA 95 and ESA 2010 Chapter 17 : Guarantees

⁵⁸ Manual on Government Deficit and Debt VII.4.4.1.2

⁵⁹ Manual on Government Deficit and Debt V.6 Low interest rate loans and sale of government low interest loans to third parties

SGP. For member states, such as Ireland, whose debt to GDP ratio is over 60 per cent, the annual improvement has to be 'more than' 0.5 per cent of GDP which is taken to be 0.6 per cent of GDP. If however GDP grows in excess of potential growth, or if the difference between the actual and potential level diverges from +/-1.5% of GDP this amount is modulated to reflect the prevailing economic environment. This is intended to ensure that fiscal policy is counter-cyclical.

The provision of ICLs on the basis of a student contribution of €4,000 for the current number of full-time undergraduates (including those whose fees are paid on their behalf) would amount to €600 million. If the default rate were to be 20 per cent this would have an impact on the deficit of €120 million⁶⁰. This additional expenditure will be taken into consideration in the calculation of the structural improvement and will need to be covered by revenue or savings elsewhere to ensure that Ireland remains on its adjustment path towards the MTO.

Expenditure Benchmark

The Expenditure Benchmark (EB) is a complementary requirement introduced by the six-pack reforms to the SGP. It assists member states to maintain or reach their MTO by explicitly setting the rate at which public expenditure can grow in the absence of revenue-raising measures. The EB allows expenditure growth at a level equivalent to the potential growth rate of the economy for countries already at their MTO. Ireland is not yet at its MTO and, therefore, public expenditure growth has to be at a rate below the potential growth rate of the economy. To ensure this, a convergence margin is applied to reduce the permitted growth rate of expenditure. The convergence margin will be applied until the MTO is reached and is designed to ensure that the necessary minimum structural adjustment is made each year.

The impact on the EB in this case would be in the first year when the ICL is introduced. As it would add €120 million to general government expenditure this would consume €120 million of available fiscal space unless it can be offset by savings or revenue elsewhere. The principles defined in the Medium term Budgetary Framework⁶¹ would indicate that these savings or additional revenue would be made up by other areas of the Education Vote. Savings in excess of €120 million would arise from the fact that the ICLs would replace the state payment of the student contribution on behalf of approximately 50 per cent of students. Once the ICL is fully operational and the annual provision constant the expenditure will be in the expenditure base there will have no further impact on the EB⁶².

Debt Rule

The debt rule essentially requires an annual average reduction of the debt to GDP ratio of 1/20th of the gap between the existing level of this ratio and 60 per cent. This can be achieved on either a backward- or forward-looking basis. Other factors are also taken into account in assessing compliance with this rule:

Non-compliance with the numerical benchmark for debt reduction should not be sufficient to establish the existence of an excessive deficit, which should take into account the whole range of relevant factors covered by the Commission's report under Article 126(3) TFEU. In particular, the assessment of the effect of the cycle and the composition of the stock-flow adjustment on debt developments may be sufficient to avoid that the existence of an excessive deficit be established on the basis of the debt criterion (European Council, 2011).

⁶⁰ If the interest charged to students is below the actual cost of government funding there would be an additional impact on the deficit.

⁶¹ Medium Term Budgetary Framework July 2014 page 8.

⁶² There would be a small additional impact arising from increases in the scale of loans issued due to increased student numbers or from increases in fees.

Ireland will not be fully subject to the debt rule for the first three years after we exit the excessive deficit procedure. Current projections suggest the debt rule will be binding from 2019. Before then there is a requirement to make progress towards meeting it. The projected debt/GDP ratio in 2019 (as set out in the 2016 budget) is around 84 per cent. A 1/20th annual reduction to 60 per cent of GDP implies an annual debt ratio reduction of 1.2 percentage points. Assuming average *nominal* GDP growth of 4 per cent and that Ireland achieves its requirement to have a balanced structural budget, Ireland's debt ratio would fall on average by around 2.4 percentage points taking 84 per cent as a starting point for the debt to GDP ratio. In 2016 the projected fall in the debt to GDP ratio is 4.2 percentage points.

This implies that an annual provision for ICLs of €600 million or 0.3 per cent of GDP would not prevent continuing decline in the debt ratio provided there is moderate economic growth⁶³ so there would appear to be some scope to use government borrowing for ICLs.

However it appears that there will be a long lead in time before the ICLs have reached the point where annual repayments will come close to annual loan payments (i.e., that the annual impact of the scheme would be neutral in gross debt terms). Although this could be achieved without having a significant impact on Ireland's ability to meet the debt rule the build-up of debt associated with the scheme could be significant; in 20 years it will be over €10 billion. Carrying this could have implications for borrowing capacity in the future.

Current Limitations of this situation

There is very little room to manoeuvre in the structural improvement or in the EB projections of fiscal space for this additional expenditure in the short term without additional revenue or expenditure savings⁶⁴. However when the MTO is reached and Ireland is running a balanced structural budget and the convergence margin is no longer applied to the EB it is estimated that an additional €1.5 - €2bn of fiscal space will be available.

A3.5.3 Impact on Participation

A final concern with the introduction of ICLs is whether there would be an adverse impact on participation among those from low income families. At present students from low income families are not required to pay fees in relation to full-time undergraduate education while with ICLs such students would be required to make deferred payments. There is research that suggests that individuals from disadvantaged backgrounds are more likely to be financially risk averse (Flannery and O'Donoghue, 2011). This creates the potential for ICLs to affect the decision to participate in higher level education.

However there is evidence from the UK and Australia indicating that participation by lower income groups was not adversely affected by the introduction of ICLs. The UK Office for National Statistics reported that the introduction of ICLs did not seem to have affected participation by income or social class (as quoted by Flannery and O'Donoghue, 2011). Wyness (2015) reported that subsequent fee increases in 2012 had not affected the trend of rising participation among disadvantaged families although participation continued to be relatively low for this group. The evidence cited by Wyness referred to full-time undergraduates. As a quid pro quo of the 2012 tuition fee increases (which permitted maximum fees of £9,000) universities committed to undertaking measures to promoting access for disadvantaged students.

⁶³ There are other potential uses for such borrowing capacity that exists.

⁶⁴ Budget 2016 Table 12 and Table A8

In the UK there has been a decline in participation by part-time and mature students in recent years. The tripling of tuition fees that occurred in 2012 in England has been identified as a contributory factor in this decline (Independent Commission on Fees, 2015); only a minority of part-time students have access to ICLs in England with which to pay these fees. This experience is not directly relevant to Ireland in that the level of tuition fees in England is much higher than the level contemplated in this report. However it does illustrate that part-time and mature students are more sensitive to fee levels. Some full-time mature students in Ireland at present undertaking undergraduate course are eligible for tuition waivers on the basis of their own income. For this particular group of mature students a system of deferred payment with ICLs would be less favourable than the current system as regards to tuition payments although such students would benefit from the enhanced student support proposed in this report. On the whole however there is potential in Ireland for the provision of ICLs to provide improved support for significant numbers of students. As noted above, part-time and post-graduate students in Ireland are not eligible for the supports available to full-time undergraduates so that if ICLs were made available to all such students this would support an improvement in access.

A survey of the evidence for Australia is provided by Chapman (2005). He found that the introduction of ICLs did not result in decreases in participation for students from disadvantaged families although the absolute increases were higher for relatively advantaged students. Subsequent fee increases and other changes in 1997 led to a small reduction in the total number of applications. This however was in the context of excess demand so that total participation continued to increase. One exception concerning a very small number of students is that the 1997 changes led to a small decrease in enrolments by poor males in the most expensive courses. A study by Aungles et al. (2002) found the 1997 changes had reduced demand for higher education by mature students more than school leavers. This may have been due to the significant reduction in the income repayment threshold which made it more difficult to combine work, study and repayment of loans. Students in Australia are required to make repayments on their loans whenever income exceeds the threshold even if they are still studying. The trend however in Australia is of rising participation by mature students in education generally. The share of 20 to 29 years olds in education in Australia (not just higher education) increased from 23 per cent in 1995 to 35 per cent in 2012; this was well above the OECD average of 28 per cent (2012 data).

One particular group for whom ICLs would create a barrier is the Muslim community as the Islamic faith does not permit the paying or charging of interest (HEFEC, 2013). The UK government has announced that it will introduce an alternative form of financial support to address this.

A3.6 Conclusion

The range of scenarios examined in this appendix indicate that it would be possible to design a scheme in which the repayment burden for students is not excessive and the prospective cost to the state is kept at a manageable level. The level of monthly repayments is lower for those in lower income groups but in some cases total repayments are higher on account of the longer repayment period. If this were considered to be problematic, it could be addressed by applying real interest in the form of an upfront surcharge to loan balances instead of the conventional method of levying interest over the course of the loan.⁶⁵

The evidence from the UK and Australia does not suggest that the replacement of fee waivers by ICLs would be expected to reduce participation by lower income groups. There is however potential for higher fees to adversely affect participation by part-time and mature students so that it is important for the access to and conditions of ICLs to be supportive of this type of learning. The current situation in Ireland is that part-time and post-graduate students do not have access to fee waivers or grants so these groups would benefit if they gained access to ICLs.

⁶⁵ In recent years long term government bonds have been sold at very low nominal yields. The real yields cannot be known in advance as this depends on future inflation. If index-linked government bonds were to be issued that the real long term cost of government borrowing would be established.

Graduate emigration is a concern for a student loan scheme. However, it should not be assumed that emigration implies an end of loan obligations; this is not the case with loans generally. It will be important to develop effective arrangements to achieve repayments from borrowers who emigrate.

In considering the costs of student loans it needs to be borne in mind that there are also costs associated with the alternative policy of providing waivers of student contributions for some or all students. A range of estimates of the cost to the government of an ICL scheme have been presented. The costs refer to the percentage of the loans projected not to be repaid plus the cost of an interest subsidy where the interest rate is below the cost of government finance. An interest rate below the cost of government funds substantially increases the cost of providing ICLs. The estimated government costs are very sensitive to the discount rate or assumed cost of government funds. With a 2 per cent interest rate payable by borrowers for a loan of €16,000 and making provision for emigration the projected costs are in the range of 8.4 to 32.1 per cent depending on whether the discount rate is 0 or 2 per cent. The real cost of long term government funding⁶⁶ is most likely below 1 per cent at present although it can be expected to increase to above 1 per cent at some stage in the future. With a 1 per cent discount rate the projected subsidy cost is 21.3 per cent. An increase in the level of loans to €20,000 would increase subsidy costs by up to 1.5 percentage points when interest rates are 2 per cent.

The implications of the introduction of ICLs for the EU fiscal rules were explored above. The most significant issue arises in regard to the impact on debt. The analysis of above indicates that there is some scope for government borrowing for an ICL scheme while adhering to the EU fiscal rules.

⁶⁶ The real cost of government bonds that are issued now depends on the future rate of inflation. If index linked bonds were to be issued the real cost would be known in advance.

Table A3.3: Income Contingent Loans of €16,000, Men's Results: Repayment Based on 8% Repayment Rate on Marginal Income over an Income Threshold of €26,000**(i) 2% Real Interest Rate when income above €26,000**

	10th	20th	30th	50th	70th	80th
% Loan Repaid	32.5	100	100	100	100	100
# Years Payment	25	16	13	15	10	7
Age Final Payment	56	44	40	38	30	27
Mean % Gross Income	1.5	2.8	3.0	2.7	3.5	4.3
Mean % Net Income	1.8	3.7	4.1	3.7	4.9	6.2
Total Repayments	€12,303	€19,015	€18,480	€19,053	€17,581	€17,046
Total Discounted by 2%	€7,140	€12,868	€13,126	€14,208	€15,077	€15,077
Total Discounted by 1%	€9,342	€15,616	€15,554	€16,432	€16,269	€16,024
Mean Monthly Payment (when not 0)	€41	€99	€118	€106	€147	€203
Mean Monthly Payment, Age 21-29	n/a	€2	€27	€47	€153	€203
All percentiles above the 15 th pay loan in full						

(ii) 0% Real Interest Rate

	10th	20th	30th	50th	70th	80th
% Loan Repaid	76.9	100	100	100	100	100
# Years Payment	25	14	12	13	9	7
Age Final Payment	56	42	39	36	29	27
Mean % Gross Income	1.5	2.7	2.9	2.8	3.6	4.1
Mean % Net Income	1.8	3.5	3.9	3.6	5.0	5.8
Total Repayments	€12,303	€16,000	€16,000	€16,000	€16,000	€16,000
Total Discounted by 2%	€7,140	€11,045	€15,080	€12,112	€13,822	€15,077
Total Discounted by 1%	€9,342	€13,274	€13,553	€13,905	€14,861	€16,024
Mean Monthly Payment (when not 0)	€41	€95	€111	€103	€148	€190
Mean Monthly Payment, Age 21-29	n/a	€2	€27	€47	€148	€90

All percentiles above the 15th pay loan in full**Source:** Prepared by Dr. Aedín Doris of Maynooth University.

Table A3.4: Income Contingent Loans of €16,000, Men's Results: Repayment Based on 2-8% Repayment Rate on Total Income over an Income Threshold of €26,000**(i) 2% Real Interest Rate when income above €26,000**

	10th	20th	30th	50th	70th	80th
% Loan Repaid	100	100	100	100	100	100
# Years Payment	23	11	10	11	7	5
Age Final Payment	54	39	37	34	27	25
Mean % Gross Income	2.7	4.0	4.1	4.0	5.2	6.1
Mean % Net Income	3.3	5.2	5.4	5.2	7.0	8.7
Total Repayments	€20,410	€17,998	€17,728	€18,132	€16,996	€16,596
Total Discounted by 2%	€12,126	€12,868	€13,126	€14,208	€15,077	€15,077
Total Discounted by 1%	€15,681	€15,200	€15,239	€16,035	€16,000	€15,818
Mean Monthly Payment (when not 0)	€74	€136	€148	€137	€202	€277
Mean Monthly Payment, Age 21-29	n/a	€44	€63	€85	€202	€277
All percentiles above the 5 th pay loan in full						

(ii) 0% Real Interest Rate

	10th	20th	30th	50th	70th	80th
% Loan Repaid	100	100	100	100	100	100
# Years Payment	20	10	9	10	7	5
Age Final Payment	51	38	36	33	27	25
Mean % Gross Income	2.5	4.0	4.1	4.0	4.9	5.9
Mean % Net Income	3.0	5.1	5.5	5.1	6.6	8.4
Total Repayments	€16,000	€16,000	€16,000	€16,000	€16,000	€16,000
Total Discounted by 2%	€11,119	€11,547	€11,921	€12,653	€14,244	€14,558
Total Discounted by 1%	€13,319	€13,577	€13,797	€14,216	€15,090	€15,257
Mean Monthly Payment (when not 0)	€67	€133	€148	€133	€190	€267
Mean Monthly Payment, Age 23-29	n/a	€44	€63	€85	€190	€267
All percentiles above the 10 th pay loan in full						

Source: Prepared by Dr. Aedin Doris of Maynooth University.

Table A3.5: Income Contingent Loans of €16,000, Women's Results: Repayment Based on 8% Repayment Rate on Marginal Income over an Income Threshold of €26,000**(i) 2% Real Interest Rate when income above €26,000**

	10th	20th	30th	50th	70th	80th
% Loan Repaid	-5.2	4.0	100	100	100	100
# Years Payment	4	26	25	15	14	12
Age Final Payment	52	54	51	39	35	32
Mean % Gross Income	0.4	1.1	2.2	2.8	2.9	3.0
Mean % Net Income	0.5	1.3	2.8	3.8	3.9	4.2
Total Repayments	€469	€9,119	€20,607	€18,459	€18,620	€18,195
Total Discounted by 2%	€245	€5,531	€13,388	€13,929	€14,782	€15,076
Total Discounted by 1%	€338	€7,068	€16,548	€16,209	€16,418	€16,549
Mean Monthly Payment (when not 0)	€10	€29	€69	€104	€111	€126
Mean Monthly Payment, Age 21-29	n/a	€13	€36	€61	€85	€119
All percentiles above the 30 th pay loan in full						

(ii) 0% Real Interest Rate

% Loan Repaid	2.9	57.0	100	100	100	100
# Years Payment	4	26	22	13	12	11
Age Final Payment	52	54	48	37	33	31
Mean % Gross Income	0.4	1.1	2.0	2.8	2.9	3.0
Mean % Net Income	0.5	1.1	2.5	3.7	3.9	4.1
Amount repaid	€469	€9,120	€16,000	€16,000	€16,000	€16,000
Total Discounted by 2%	€245	€5531	€10,921	€12,099	€12,879	€13,387
Total Discounted by 1%	€338	€7,068	€13,182	€13,897	€14,341	€14,624
Mean Monthly Payment (when not 0)	€10	€29	€61	€103	€111	€121
Mean Monthly Payment, Age 21-29	na	€13	€36	€61	€85	€119
All percentiles above the 25 th pay loan in full						

Source: See Table A3.3.

Table A3.6: Income Contingent Loans of €16,000, Women's Results: Repayment Based on Repayment Rate of 2-8% on Total Income over an Income Threshold of €26,000

(i) 2% Real Interest when income above €26,000						
	10th	20th	30th	50th	70th	80th
% Loan Repaid	6.2	92.9	100	100	100	100
# Years Payment	4	26	16	10	10	8
Age Final Payment	52	54	42	34	31	28
Mean % Gross Income	2.0	2.5	3.2	4.3	4.2	4.8
Mean % Net Income	2.3	2.9	4.0	5.6	5.5	6.5
Total Repayments	€2,197	€19,895	€18,398	€17,815	€17,839	€17,515
Total Discounted by 2%	€1,154	€12,440	€13,388	€13,929	€14,782	€15,077
Total Discounted by 1%	€1,590	€15,661	€15,669	€15,738	€16,226	€16,241
Mean Monthly Payment (when not 0)	€46	€64	€96	€148	€149	€182
Mean Monthly Payment, Age 21-29	n/a	€47	€71	€103	€135	€182
All percentiles above the 25 th pay loan in full						
(ii) 0% Real Interest Rate						
% Loan Repaid	13.7	100	100	100	100	100
# Years Payment	4	23	14	10	10	8
Age Final Payment	52	51	40	34	31	28
Mean % Gross Income	2.0	2.3	3.2	3.9	3.8	4.5
Mean % Net Income	2.3	2.7	4.0	5.0	5.0	6.0
Total Repayments	€2,197	€16,000	€16,000	€16,000	€16,000	€16,000
Total Discounted by 2%	€1,154	€10,463	€11,866	€12,607	€13,360	€13,834
Total Discounted by 1%	€1,590	€12,891	€13,761	€14,190	€14,610	€14,870
Mean Monthly Payment (when not 0)	€46	€58	€95	€133	€133	€167
Mean Monthly Payment, Age 21-29	N/A	47	71	103	135	167
All percentiles above the 20 th pay loan in full						
Source: See Table A3.3.						

Table A3.7: Income Contingent Loans of €20,000, Men's Results: Repayment Based on 8% Repayment Rate on Marginal Income over an Income Threshold of €26,000						
(i) 2% Real Interest Rate when income above €26,000						
	10th	20th	30th	50th	70th	80th
% Loan Repaid	13.2	100	100	100	100	100
# Years Payment	25	20	16	16	12	9
Age Final Payment	56	48	43	39	32	29
Mean % Gross Income	1.5	2.8	3.1	3.1	3.6	4.1
Mean % Net Income	1.8	3.7	4.2	4.2	5.0	6.0
Total Repayments	€12,303	€24,634	€23,695	€24,384	€22,437	€21,670
Total Discounted by 2%	€7,140	€16,085	€16,407	€17,759	€18,846	€18,846
Total Discounted by 1%	€9,342	€19,861	€19,685	€20,779	€20,545	€20,196
Mean Monthly Payment (when not 0)	€41	€103	€123	€127	€156	€201
Mean Monthly Payment, Age 21-29	n/a	€2	€27	€47	€153	€201
All percentiles above the 15 th pay loan in full						
(ii) 0% Real Interest Rate						
% Loan Repaid	61.5	100	100	100	100	100
# Years Payment	25	17	14	15	11	8
Age Final Payment	56	45	41	38	31	28
Mean % Gross Income	1.5	2.7	3.0	2.8	3.6	4.3
Mean % Net Income	1.8	3.6	4.1	3.8	5.0	6.2
Total Repayments	€12,303	€20,000	€20,000	€20,000	€20,000	€20,000
Total Discounted by 2%	€7,140	€13,447	€14,097	€14,845	€16,971	€17,501
Total Discounted by 1%	€9,342	€16,370	€16,768	€17,208	€18,408	€18,698
Mean Monthly Payment (when not 0)	€41	€98	€119	€111	€152	€208
Mean Monthly Payment, Age 21-29	n/a	€2	€27	€47	€153	€208
All percentiles above the 15 th pay loan in full						
Source: See Table A3.3.						

Table A3.8: Income Contingent Loans of €20,000, Men's Results: Repayment Based on 2-8% Repayment Rate on Total Income over an Income Threshold of €26,000

(i) 2% Real Interest when income above €26,000						
	10th	20th	30th	50th	70th	80th
% Loan Repaid	75.1	100	100	100	100	100
# Years Payment	25	14	11	12	8	6
Age Final Payment	56	42	38	35	28	26
Mean % Gross Income	2.7	3.9	4.6	4.4	5.6	6.3
Mean % Net Income	3.2	5.1	6.1	5.8	7.6	9.0
Total Repayments	€21,925	€23,011	€22,541	€23,284	€21,293	€20,949
Total Discounted by 2%	€12,852	€16,085	€16,407	€18,477	€18,846	€18,846
Total Discounted by 1%	€16,728	€19,212	€19,209	€20,719	€20,023	€19,863
Mean Monthly Payment (when not 0)	€73	€137	€171	€160	€224	€291
Mean Monthly Payment, Age 21-29	n/a	€44	€63	€85	€224	€291
All percentiles above the 15 th pay loan in full						
(ii) 0% Real Interest Rate						
% Loan Repaid	100	100	100	100	100	100
# Years Payment	23	12	10	12	8	6
Age Final Payment	54	40	37	35	28	26
Mean % Gross Income	2.6	4.0	4.5	4.0	5.2	6.1
Mean % Net Income	3.2	5.3	6.0	5.2	7.1	8.6
Total Repayments	€20,000	€20,000	€20,000	€20,000	€20,000	€20,000
Total Discounted by 2%	€11,925	€14,169	€14,685	€15,564	€17,574	€18,036
Total Discounted by 1%	€15,394	€16,812	€17,119	€17,625	€18,738	€18,986
Mean Monthly Payment (when not 0)	€72	€139	€167	€139	€208	€278
Mean Monthly Payment, Age 21-29	n/a	€44	€63	€85	€208	€278
All percentiles above the 10 th pay loan in full						
Source: See Table A3.3.						

Table A3.9: Income Contingent Loans of €20,000, Women's Results: Repayment Based on 8% Repayment Rate on Marginal Income over an Income Threshold of €26,000**(i) 2% Real Interest Rate when income above €26,000**

	10th	20th	30th	50th	70th	80th
% Loan Repaid	-5.8	-10.3	92.5	100	100	100
# Years Payment	4	26	30	18	16	14
Age Final Payment	52	54	56	42	37	34
Mean % Gross Income	0.4	1.1	2.3	3.0	3.1	3.2
Mean % Net Income	0.5	1.3	2.9	4.0	4.2	4.5
Total Repayments	€469	€9,119	€25,930	€24,189	€23,885	€23,230
Total Discounted by 2%	€245	€5,531	€16,041	€17,411	€18,477	€18,846
Total Discounted by 1%	€338	€7,068	€20,300	€20,485	€20,979	€20,902
Mean Monthly Payment (when not 0)	€10	€29	€72	€112	€124	€138
Mean Monthly Payment, Age 21-29	n/a	€13	€36	€61	€85	€119
All percentiles above the 35 th pay loan in full						

(ii) 0% Real Interest Rate

% Loan Repaid	2.3	45.6	100	100	100	100
# Years Payment	4	26	25	16	14	12
Age Final Payment	52	54	51	40	35	32
Mean % Gross Income	0.4	1.1	2.1	2.8	3.1	3.3
Mean % Net Income	0.5	1.3	2.7	3.8	4.1	4.6
Amount repaid	€469	€9,119	€20,000	€20,000	€20,000	€20,000
Total Discounted by 2%	€245	€5,531	€13,072	€14,759	€15,767	€16,445
Total Discounted by 1%	€338	€7,068	€16,111	€17,156	€17,737	€18,120
Mean Monthly Payment (when not 0)	€10	€29	€67	€104	€119	€139
Mean Monthly Payment, Age 21-29	n/a	€13	€36	€61	€85	€119
All percentiles above the 30 th pay loan in full						

Source: See Table A3.3.

Table A3.10: Income Contingent Loans of €20,000, Women's Results: Repayment Based on 2-8% Repayment Rate on Total Income over an Income Threshold of €26,000

(i) 2% Real Interest Rate when income above €26,000						
	10th	20th	30th	50th	70th	80th
% Loan Repaid	3.3	60.9	100	100	100	100
# Years Payment	4	26	21	12	12	10
Age Final Payment	52	54	47	36	33	30
Mean % Gross Income	2.0	2.5	3.2	4.4	4.3	4.7
Mean % Net Income	2.3	2.9	4.0	5.8	5.7	6.4
Total Repayments	€2,197	€19,895	€24,067	€22,707	€22,697	€22,212
Total Discounted by 2%	€1,154	€12,440	€16,735	€17,411	€18,477	€18,846
Total Discounted by 1%	€1,590	€15,661	€20,119	€19,862	€20,460	€20,447
Mean Monthly Payment (when not 0)	€46	€64	€96	€158	€158	€185
Mean Monthly Payment, Age 21-29	n/a	€47	€71	€103	€135	€199
All percentiles above the 25 th pay loan in full						
(ii) 0% Real Interest Rate						
% Loan Repaid	11.0	99.5	100	100	100	100
# Years Payment	4	26	18	11	11	9
Age Final Payment	52	54	44	35	32	29
Mean % Gross Income	2.0	2.5	3.1	4.3	4.2	4.8
Mean % Net Income	2.3	2.9	3.9	5.6	5.5	6.5
Total Repayments	€2,197	€19,895	€20,000	€20,000	€20,000	€20,000
Total Discounted by 2%	€1,154	€12,440	€14,366	€15,499	€16,435	€17,078
Total Discounted by 1%	€1,590	€15,661	€16,919	€17,589	€18,115	€18,470
Mean Monthly Payment (when not 0)	€46	€64	€93	€152	€152	€185
Mean Monthly Payment, Age 21-29	n/a	€47	€71	€103	€135	€185
All percentiles above the 25 th pay loan in full						
Source: See Table A3.3.						

Appendix Table A3.11: Subsidy Rates for Income Contingent Loans: €16,000 Loans

No Emigration, 8% Repayment Rate on Marginal Income over €26,000			
	0% Discount	1% Discount	2% Discount
0% interest rate	12.5%	23.8%	33.2%
2% interest rate	-1.4%	12.4%	23.8%

Emigration, 8% Repayment Rate on Marginal Income over €26,000			
	0% Discount	1% Discount	2% Discount
0% interest rate	22.1%	32.4%	41.0%
2% interest rate	8.4%	21.3%	32.1%

No emigration, 2-8% Repayment Rate on Total Income when Income Exceeds €26,000			
	0% Discount	1% Discount	2% Discount
0% interest rate	9.1%	19.4%	28.3%
2% interest rate	-1.35%	10.8%	21.1%

Emigration, 2-8% Repayment Rate on Total Income when Income Exceeds €26,000			
	0% Discount	1% Discount	2% Discount
0% interest rate	18.5%	28.2%	36.4%
2% interest rate	8.8%	20.0%	29.6%

Source: Prepared using information provided by Dr. Aedin Doris of Maynooth University.

Appendix Table A3.12: Subsidy Rates for Income Contingent Loans: €20,000 Loans

No Emigration, 8% Repayment Rate on Marginal Income over €26,000			
	0% Discount	1% Discount	2% Discount
0% interest rate	13.75%	25.5%	35.3%
2% interest rate	-2.25%	12.8%	25.1%

Emigration, 8% Repayment Rate on Marginal Income over €26,000			
	0% Discount	1% Discount	2% Discount
0% interest rate	23.2%	34.0%	43.0%
2% interest rate	8.1%	22.1%	33.5%

No Emigration, 2-8% Repayment Rate on Total Income when Income Exceeds €26,000			
	0% Discount	1% Discount	2% Discount
0% interest rate	9.8%	25.3%	25.4%
2% interest rate	-1.2%	11.5%	22.3%

Emigration, 2-8% Repayment Rate on Total Income when Income Exceeds €26,000			
	0% Discount	1% Discount	2% Discount
0% interest rate	19.6%	29.6%	38.1%
2% interest rate	8.6%	20.7%	30.7%

Source: See Table A3.11

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