# An investigation of inefficiencies in enterprise supports: A study of the Irish enterprise support system

David Pasley

PhD

2016

QQI

# An investigation of inefficiencies in enterprise supports: A study of the Irish enterprise support system

David Pasley, BBS MBSI

Submitted in Fulfilment of the Degree of Doctor of Philosophy

School of Business Waterford Institute of Technology

Research Supervisors: Professor Bill O'Gorman and Dr Sheila O'Donohoe

Submitted to Waterford Institute of Technology, July 2016

## Declaration

The author hereby declares that, except where duly acknowledged, this thesis is entirely his own work.

Signed\_\_\_\_\_

David Pasley July 2016

#### Acknowledgements

There are a vast number of people who have helped me through the process of completing this research and writing this thesis. who I would like to thank:

Firstly, to my supervisors Prof Bill O'Gorman and Dr Sheila O'Donohoe. They have both given up a considerable amount of time and been thoroughly committed over the past number of years to review my submissions, offer advice and guide me through the process. More than supervisors, they have become role models and also friends and while I am glad to be moving on to the next stage of my career, I will miss our regular meetings!

To the lecturers and staff in the AIB Centre for Finance and Business Research and the School of Business in Waterford Institute of Technology (WIT). The enthusiasm that they have shown for my research has been very encouraging and they have all been there at various stages to critique and give advice. The environment that they have created in the School, for learning and sharing knowledge, is second to none. I am also grateful for the assistance of staff from other departments of WIT, in particular the library staff who always go above and beyond to help all of us research students.

To my colleagues and friends who have recently completed, or are nearing completion of their own research.

To those owner/managers of enterprises who gave up their valuable and limited time to participate in this research and to those staff of Enterprise Ireland and the former CEBs who took part in interviews.

Last but certainly not least, to my parents, Ann and Stan, my brother Rob, the rest of my family and my wonderful circle of friends, all of whom offered a lot of support and encouragement over the past few years. Particularly to my Mum who invested a lot of time into getting me across the finish line.

## Dedication

To my Family and Friends, and especially to my Grandparents who are no longer with us but have been so influential on my life.

#### Abstract

Since the 1990s Irish Government enterprise policy has recognised the contribution of indigenous Small and Medium Enterprises (SMEs) to economic growth and also the need to address the challenges that such enterprises face. Such policies have resulted in the creation of agencies tasked with providing both financial and soft support to SMEs. This thesis evaluated aspects of the effectiveness of financial support issued by agencies Enterprise Ireland (EI) and The City and County Enterprise Boards (CEBs) during a recessionary period for Ireland between 2008 and 2011.

To date evaluation of enterprise supports has frequently concerned measuring additionality. However, previous evaluations have also revealed a number of inefficiencies associated with such supports. The principal inefficiency is deadweight, which is defined as activity that would have occurred regardless of support being provided. However there are other inefficiencies which have been discovered, ranging from substitution of private finance with public funds by SMEs to selection bias by government agencies. In previous research these concepts have largely been explored in isolation. However, this thesis presents a more holistic view and develops a novel framework to explain the potential relationships between these different concepts, for their simultaneous measurement.

The research was carried out over three stages using a mixed methodology. Firstly a survey was conducted on a sample of supported and unsupported enterprises. Semi-structured interviews were carried out with a sub-sample of the survey respondents to garner their responses with further detail. Finally, interviews were carried out with EI and CEB representatives.

The findings suggest that deadweight is present in the Irish enterprise support system, but is less prolific than outlined by previous research. However, the occurrence of deadweight negatively affects performance metrics of agency activities, such as cost per job measures. The findings also suggest that deadweight is perpetuated by selection biases on the part of support agencies and the enterprise's potential to substitute private finance with public funds. However, evidence of additionality has the potential to mitigate for some of these inefficiencies.

This thesis has made a number of contributions. Firstly, it has developed a greater understanding of the concept of deadweight through the development and testing of a unique theoretical framework. Secondly, this research has developed a methodology based on best practice evaluation approaches, which have not been used previously in the evaluation of deadweight. Finally, this research has contributed to the enterprise policy and state support debate in what was a particularly difficult era in Ireland's economic history.

### Table of Contents

Declarationi
Acknowledgementsii
Dedicationiii
Abstractiv
List of Figures xi
List of Tables xii
List of Abbreviations xiv
Chapter 1 - Introduction
1.1 Chapter Overview
1.2 Background of Study
1.3 Rationale for Study
1.4 Objectives of Study
1.5 Research Methodology
1.6 Contribution of this Research
1.7 Structure of the Thesis
Chapter 2 - Setting the Scene: Enterprise in Ireland
2.1 Introduction
2.2 Defining and Measuring Enterprise Activity
2.3 Enterprise in Ireland
2.3.1 Dynamic Metrics of Enterprise in Ireland
2.3.2 The Static Metrics of Enterprise in Ireland 17
2.4 Indigenous SMEs: Contributions and Challenges
2.4.1 Economic impact and employment
2.4.2 Enterprise Research and Development and Innovation
2.4.3 Enterprise Deaths
2.4.4 SME Finance

2.5 Summary	25
Chapter 3 - Entrepreneurship and SME Policy in Ireland	27
3.1 Introduction	28
3.2 The Background of Irish Industrial Policy	28
3.3 SME Policy in the 1980s: Moving toward supporting Indigenous Enterprise	32
3.4 Policy in the 1990s: Moving toward supporting indigenous SMEs	35
3.5 Enterprise Policy since the Economic Downturn	38
3.6 EU Centric Policies and European Policy Convergence	42
3.7 Irish State interventions in Enterprise	44
3.7.1 Cost of Intervention in Ireland	44
3.7.2 Enterprise Ireland and CEBs	46
3.8 Summary	49
Chapter 4 - Theoretical Framework and Empirical Evidence	51
4.1 Introduction	52
4.2 Enterprise Policy	53
4.2.1 Market Failure and Rationale for Enterprise Policy	53
4.2.2 Enterprise Policy Classifications	56
4.3 Evaluating Intervention	65
4.3.1 Additionality	65
4.3.2 Evaluating Government Intervention	67
4.4 Empirical Evidence	70
4.4.1 Studies of Intervention	70
4.4.2 Inefficiencies of Government Intervention	74
4.4.3 Deadweight	78
4.5 Summary	91
Chapter 5 - Methodological Considerations	96
5.1 Introduction	97
5.2 Research Question and Objectives	98

5.3 Conceptual Framework	
5.4 Research Philosophy	103
5.5 Research Approaches	107
5.6 Research Design	109
5.7 Survey	111
5.7.1 Sample Frame	111
5.7.2 Questionnaire Administration	115
5.7.3 Questionnaire Design	116
5.7.4 Survey Pilot Study	119
5.7.5 Survey Data collection	119
5.7.6 Survey Analysis	123
5.8 Interviews	124
5.8.1 Enterprise Interview Sample	125
5.8.2 Agency Interview Sample	
5.0.2 Agency merview bumple	
5.8.3 Interview Analysis	
	128
5.8.3 Interview Analysis	128 129
<ul><li>5.8.3 Interview Analysis</li><li>5.9 Validity and Reliability</li></ul>	128 129 130
<ul><li>5.8.3 Interview Analysis</li><li>5.9 Validity and Reliability</li><li>5.10 Summary</li></ul>	
<ul> <li>5.8.3 Interview Analysis</li> <li>5.9 Validity and Reliability</li> <li>5.10 Summary</li> <li>Chapter 6- Analysis of Inefficiencies in the Irish Enterprise Support System</li> </ul>	128 129 130 132 133
<ul> <li>5.8.3 Interview Analysis</li> <li>5.9 Validity and Reliability</li> <li>5.10 Summary</li> <li>Chapter 6- Analysis of Inefficiencies in the Irish Enterprise Support System</li> <li>6.1 Introduction</li> </ul>	
<ul> <li>5.8.3 Interview Analysis</li> <li>5.9 Validity and Reliability</li> <li>5.10 Summary</li> <li>Chapter 6- Analysis of Inefficiencies in the Irish Enterprise Support System</li> <li>6.1 Introduction</li> <li>6.2 Profile of Sample</li> </ul>	
<ul> <li>5.8.3 Interview Analysis</li> <li>5.9 Validity and Reliability</li> <li>5.10 Summary</li> <li>Chapter 6- Analysis of Inefficiencies in the Irish Enterprise Support System</li> <li>6.1 Introduction</li> <li>6.2 Profile of Sample</li> <li>6.3 Profiles of sub-samples</li> </ul>	
<ul> <li>5.8.3 Interview Analysis</li> <li>5.9 Validity and Reliability</li> <li>5.10 Summary</li> <li>Chapter 6- Analysis of Inefficiencies in the Irish Enterprise Support System</li> <li>6.1 Introduction</li> <li>6.2 Profile of Sample</li> <li>6.3 Profiles of sub-samples</li> <li>6.3.1 Applicants and Non-Applicants</li> </ul>	
<ul> <li>5.8.3 Interview Analysis</li> <li>5.9 Validity and Reliability</li> <li>5.10 Summary</li> <li>Chapter 6- Analysis of Inefficiencies in the Irish Enterprise Support System</li> <li>6.1 Introduction</li> <li>6.2 Profile of Sample</li> <li>6.3 Profiles of sub-samples</li> <li>6.3.1 Applicants and Non-Applicants</li> <li>6.3.2 Supported and Rejected Enterprises</li> </ul>	
<ul> <li>5.8.3 Interview Analysis</li> <li>5.9 Validity and Reliability</li> <li>5.10 Summary</li> <li>Chapter 6- Analysis of Inefficiencies in the Irish Enterprise Support System</li> <li>6.1 Introduction</li> <li>6.2 Profile of Sample</li> <li>6.3 Profiles of sub-samples</li> <li>6.3.1 Applicants and Non-Applicants</li> <li>6.3.2 Supported and Rejected Enterprises</li> <li>6.3.3 Applications for Support</li> </ul>	
<ul> <li>5.8.3 Interview Analysis</li> <li>5.9 Validity and Reliability</li> <li>5.10 Summary</li> <li>Chapter 6- Analysis of Inefficiencies in the Irish Enterprise Support System</li> <li>6.1 Introduction</li> <li>6.2 Profile of Sample</li> <li>6.3 Profiles of sub-samples</li> <li>6.3.1 Applicants and Non-Applicants</li> <li>6.3.2 Supported and Rejected Enterprises</li> <li>6.3.3 Applications for Support</li> <li>6.4. Appropriateness of Support</li> </ul>	

6.8 Deadweight	164
6.8.1 Deadweight estimates among supported enterprises	164
6.8.2 Deadweight Job Estimates	165
6.8.3 Factors influencing project changes or abandonment in the absence of interv	
6.8.4 Comparison of full deadweight and partial/zero deadweight enterprises	170
6.8.5 Deadweight measures for Rejected Enterprises	173
6.9 Summary	176
Chapter 7 – Enterprise Owner/Manager Perspectives	178
7.1 Introduction	179
7.2 Profile of interviewees	179
7.2.1 Supported Enterprise Profiles	181
7.2.2 Rejected Enterprise Profiles	182
7.2.3 Non-Applicant Enterprise Profiles	183
7.3 Applications for Support/Agency Interactions	184
7.4 Substitution	191
7.5 Suitability of support	196
7.6 Deadweight	201
7.7 Perceived additionality	204
7.8 Chapter Summary	210
Chapter 8 – Enterprise Agency Perspectives	212
8.1 Introduction	213
8.2 Profile of interviewees	213
8.3 Rationale for Providing Support	216
8.4 Perceived reasons for seeking support	220
8.5 Objectives of providing financial support	224
8.6 Substitution	228
8.7 Client Selection	230

8.8 Due Diligence in the Application Process	237
8.9 Deadweight	242
8.10 Chapter Summary	247
Chapter 9 - Developing a Holistic Perspective: Summary and Cross Analysis of Findings	248
9.1 Introduction	249
9.2 Market Failure	249
9.3 Selection Bias	251
9.4 Appropriateness of Support	253
9.5 Substitution	255
9.6 Rent Seeking	256
9.7 Information Asymmetries	257
9.8 Deadweight	258
9.9 Additionality	260
9.10 Summary	262
Chapter 10 - Discussion	266
10.1 Introduction	267
10.2 Deadweight	268
10.2.1 Level of Deadweight	269
10.2.2 Characteristics of Deadweight Enterprises	273
10.3 Relationship of other inefficiencies to deadweight	276
10.3.1 Information Asymmetries	277
10.3.2 Rent Seeking	278
10.3.3 Substitution	279
10.3.4 Market Failure	280
10.3.5 Selection Bias	282
10.3.6 Appropriateness of Support	284
10.3.7 Additionality	286
10.4 Summary	287

Chapter 11 - Conclusions and Recommendations	290
11.1 Introduction	291
11.2 Research Question and Objectives	291
11.3 Conclusions	292
11.3.1 Reasons for providing and seeking financial support	292
11.3.2 Selection of Enterprises for Support	293
11.3.3 Support as a Catalyst for Development	294
11.4 Contribution of this Research	295
11.5 Implications and Limitations of Research	296
11.5.1 Implications for Policy	296
11.5.2 Limitations	297
11.6 Recommendations for Future Research	299
11.7 Conclusion Summary	301
Bibliography	302
Appendices	316
Appendix A – Questionnaire	316
Appendix B – Supported Enterprise Owner/Manager Interview Guide	360
Appendix C – Rejected Enterprise Owner/Manager Interview Guide	
Appendix D – Non-applicant Enterprise Owner/Manager Interview Guide	
Appendix E – Enterprise Ireland/CEB Interview Guide	363

# List of Figures

Fig 1.1: Structure of Thesis	11
Fig 2.1: Irish SME Features	25
Fig 3.1: Timeline of Irish Enterprise Policy Evolution	31
Fig 3.2: Expenditure on enterprise supports per job, 2008 to 2014	48
Fig 4.1 Structure of Chapter 4	52
Fig 4.2: The Interface between entrepreneurship policy and SME policy	57
Fig 4.3: Impediments and Assistance Typology	63
Fig 4.4: Relationship between Deadweight and Additionality	80
Fig 4.5: Relationship between Inefficiencies and Additionality	93
Fig 5.1: Structure of Chapter 5	97
Fig 5.2: Conceptual Framework	102
Fig 5.3: The Subjective-Objective Dimension	103
Fig 5.4: Groups identified through survey	113
Fig 5.5: Map of Irish Regions	127
Fig 6.1: Structure of Chapter 6	133
Fig 6.2: Location of sample by Enterprise Ireland defined regions	136
Fig 6.3: Age of Enterprises at time of Survey (n=160)	137
Fig 6.4: Respondents by number employed by enterprise at time of survey (n=160)	138
Fig 6.5: Applications for financial support up to year ending 2011, by agency	139
Fig 6.6: Most recent application for financial support up to year ending 2011, by	
agency	140
Fig 6.7: Applicant Enterprises by Sector and Numbers Employed	143
Fig 6.8: Non-Applicant Enterprises by Sector and Numbers Employed	143
Fig 6.9: Type of Support Applied for by Supported (n=112) and Rejected (n=12)	
enterprises (%)	149
Fig 6.10: Categories of Support Applied for by Supported (n=112) and Rejected	
(n=12) enterprises (%)	150
Fig 6.11: Supported enterprises' perception of financial capacity to engage in	
project in the absence of financial support (n=90)	157
Fig 6.12: Sources of finance available in the absence of support (multiple responses	
could be selected) (n=78)	160
Fig 6.13: Rejected Enterprises financial capacity to engage in project following	
rejection of their application for financial support (n=12)	161
Fig 6.14: Sources of finance used in the absence of support by rejected enterprises	
(n=10)	162
Fig 6.15: Levels of deadweight among supported enterprises (n=90)	164
Fig 6.16: Status of enterprises' projects following rejection of application for	
support (n=12)	173
Fig 8.1 Map of Irish Regions	214
Fig 10.1: Relationship between Inefficiencies, Deadweight and Additionality	276

# **List of Tables**

Table 2.1: SME Segmentation	14
Table 2.2: Percentage of the population regarded as Early Stage Entrepreneurs, 2005-	
14	16
Table 2.3: Enterprises in Ireland by size, 2011	18
Table 2.4 Enterprises and enterprise births by sector, 2011	20
Table 2.5: SMEs and people engaged in sectors eligible for support, 2008-11	21
Table 2.6: Enterprise Deaths, 2011	24
Table 2.7: Rates of application for finance and success in obtaining finance, 2010	25
Table 3.1 Functions of the Industrial Development Authority (IDA)	29
Table 3.2: Recommendations of the Telesis Report, 1982	33
Table 3.3: Planned capital expenditure on enterprise support	45
Table 3.4: Expenditure on Financial Support by Enterprise Ireland and CEBs, 2008	
to 2014 ('000s)	46
Table 3.5: SMEs supported by Enterprise Ireland under selected schemes	47
Table 3.6: Number of enterprises and people supported by CEBs	49
Table 4.1: Classifications of Entrepreneurship Policy Interventions	60
Table 4.2: Revised Classifications of Entrepreneurship Policy Interventions	62
Table 4.3: Storey's Six Steps to Heaven Framework	69
Table 4.4: Categorisation of evaluations reviewed by Storey and Potter (2007)	07
according to their sophistication	71
Table 4.5: Deadweight estimates from International Studies	82
Table 4.6 Deadweight Estimates from Irish Studies	83
Table 4.0 Deadweight Estimates from fish studies	83
· · · · · · · · · · · · · · · · · · ·	100
Table 5.1: Concepts	100
Table 5.2: Propositions	100
Table 5.3: InterpretationTable 5.4: Positivism vs Social Constructionism	
	105
Table 5.5: Features of Deductive and Inductive Approaches       Table 5.6: Features indicating for Inductive 2005 to 2012	108
Table 5.6: Economic indicators for Ireland, 2005 to 2012	114
Table 5.7: Variables used in former deadweight studies	118
Table 5.8: Groups approached to distribute questionnaire	120
Table 5.9: Survey Response Rates	122
Table 6.1: Respondents by sector (n=160)	134
Table 6.2: Location of Enterprises according to region (n=160)	135
Table 6.3: Descriptive Statistics for Enterprise Age and Employment in Sample	10.0
(n=160)	136
Table 6.4: Profile of respondents by group	141
Table 6.5: Applicants and Non-Applicants by Location, Sector and Incubator	144
Table 6.6: Applicants and Non-Applicants by Mean Age and Employment Level	145
Table 6.7: Profile of supported and rejected enterprises by group	147
Table 6.8: Mean values for Age and Employment for Supported and Rejected Groups	148
Table 6.9: Levels of Support Applied for and Jobs Planned/Created	149
Table 6.10: Agreement with the statements regarding appropriateness of support	151
Table 6.11: Agreement with statements regarding appropriateness of support, by non-	
applicant enterprises (n=36)	152
Table 6.12: Agreement with the statements regarding raising finance	153
Table 6.13: Agreement with the statements regarding raising of finance for Non-	
Applicant enterprises (n=36)	154
Table 6.14: Agreement with the statement "Government funding means my company	
needs less private investment"	155
Table 6.15: Counterfactual scenarios relating to project finance, and their	156

implications	
Table 6.16: State investment in supported projects by finance availability (n=90)	159
Table 6.17: Agreement with the statements regarding perceived influence of support	163
Table 6.18: Project measures for supported enterprises by deadweight category	
(n=90)	166
Table 6.19: Assumptions used to calculate deadweight jobs	167
Table 6.20: Deadweight job estimates for supported enterprises by deadweight	
category, based on adaptation of Lenihan's (1999) methodology (n=90)	168
Table 6.21: Supported companies reasons for changing projects in the absence of	
support	169
Table 6.22: Comparison between enterprises showing full and partial/zero	
deadweight	171
Table 6.23: Comparison between enterprises showing full and partial/zero	
deadweight	172
Table 6.24: Planned in investment in rejected applications (n=12)	174
Table 6.25: Planned jobs and jobs created in rejected applicants for support (n=12)	175
Table 6.26: Rejected companies reasons for changing projects in the absence of	
support (n=11)	175
Table 7.1: Profile of Interviewees' enterprises	180
Table 7.2: Details of support received/applied for by Interviewees	185
Table 7.3: Availability of alternative finances to interviewees in the absence of	
support	192
Table 7.4: Levels of deadweight for interviewees' projects	202
Table 8.1: Interview participants for agency interviews	214
Table 9.1: Key Findings relating to Market Failure	250
Table 9.2: Key Findings relating to Selection Bias	252
Table 9.3: Key Findings relating to Appropriateness of Support	254
Table 9.4: Key Findings relating to Substitution	256
Table 9.5: Key Findings relating to Rent Seeking	257
Table 9.6: Key Findings relating to Information Asymmetries	257
Table 9.7: Key Findings relating to deadweight (1)	259
Table 9.8: Key Findings relating to deadweight (2)	260
Table 9.9: Key Findings relating to Additionality	261
Table 10.1: Comparison of levels of deadweight in previous studies and this research	270

#### **List of Abbreviations**

- BIS Department for Business, Innovation and Skills (UK)
- CEB City and County Enterprise Board
- CEO Chief Executive Officer
- CES Company Expansion Scheme
- CSO Central Statistics Office
- DA Development Advisor
- DJEI Department of Jobs, Employment and Innovation
- EI Enterprise Ireland
- EU European Union
- FDI Foreign Direct Investment
- GEM Global Entrepreneurship Monitor
- GVA Gross Value Added
- HPSU High Potential Start Up
- IDA Industrial Development Authority
- JEF Jobs Expansion Fund
- MD Managing Director
- NDP National Development Plan
- OECD Organisation for Economic Cooperation and Development
- PREST Policy Research in Engineering, Science and Technology
- R&D Research and Development
- R&D&I Research and Development and Innovation
- SME Small and Medium Enterprise
- TEA Total Early-Stage Entrepreneurial Activity

**Chapter 1 - Introduction** 

#### **1.1 Chapter Overview**

The purpose of this chapter is to introduce the topic of this thesis. It commences with a brief overview of the background to the topic in order to provide the context for this research. The second section of this chapter then presents the rationale for conducting this study. This is followed by a brief overview of the research objectives and the methodology developed to fulfil these objectives. Finally, the contribution of this research is then discussed followed by an overview of the structure of this thesis.

#### **1.2 Background of Study**

Small and Medium Enterprises (SMEs) are defined as enterprises with less than 250 employees, and  $\notin$ 50 million in turnover or a  $\notin$ 43 million balance sheet total (European Commission, 2016). In the Irish context, SMEs make a substantial economic contribution, which will be discussed in detail in Chapter 2. In 2011, at the end of the time frame covered by this thesis, SMEs represented 99.7% of all Irish enterprises and accounted for 68% of people engaged in the private sector (CSO, 2013). However, these enterprises face a multitude of challenges including poor access to finance, low export intensity, low levels of technology investment and high failure rates (CSO, 2012; Lawless, McCann and McIndoe-Calder, 2012; Forfás, 2012, CSO, 2016b; 2016c). Since the Irish economy went into recession in 2008, many of these challenges have been more pronounced than in previous years, particularly with regard to access to finance (CSO, 2016c). Such challenges stem from market failure (which is discussed in greater detail in section 4.2.1) and provide the key theoretical justification for government intervention in SME and entrepreneurship development (Potter, 2005).

In an effort to address these market failures, particularly in relation to the supply of finance, and more specifically to boost employment in the SME sector, the Irish Government intervenes through creating policies and through providing supports for SMEs. Indeed, SMEs have become a focal point of Irish industrial policy, particularly since the release of the policy document, *The Culliton Report* (1992). Since the release of that report, there have been numerous policy documents and policy actions which

have expanded the role of Government in improving the environment for SMEs and providing assistance to SMEs. These policies and the subsequent actions are discussed in detail in Chapter 3, but in summary a significant amount of government resources has been devoted to Irish SMEs through intervention. For example, total capital expenditure on enterprise support was expected to reach  $\notin$ 2.3bn for the period 2012 to 2016 (Department of Public Expenditure and Reform, 2011). While in international terms this may seem like a relatively small sum, in a small economy such as Ireland it represents 13.7% of Government capital expenditure over the same period.

Financial assistance for enterprises, known as 'financial support' or simply 'support' (as will be referred to throughout this thesis) in the Irish context, is the most costly element of expenditure on enterprises. Such supports involve direct payments to enterprises and include grants and equity investments to facilitate expansion of these companies. These supports cost an average of €379.9 million per annum, with approximately 53% being allocated through the two main agencies responsible for supporting indigenous enterprise; Enterprise Ireland and the City and County Enterprise Boards (CEBs)<sup>1</sup> (Forfás, 2014).

Both agencies support enterprises in manufacturing and internationally traded services. As discussed in Chapters 2 and 3, such targeting means that these agencies only support a relatively small cohort within the population of Irish enterprises. Enterprise Ireland's remit is to support the development of High Potential Start-ups (HPSUs), which are export orientated start-ups with high growth potential. The agency also supports larger SMEs. By comparison the CEBs' remit was to support micro-enterprises (those SMEs employing less than 10 people). Cumulatively, these agencies spent approximately  $\in$ 194 million on financial supports in 2011 (Enterprise Ireland, 2012). In addition to this expenditure, both agencies offer non-financial supports, or 'soft supports', such as training and mentoring. These soft supports are considerably less costly than financial supports. Typically, enterprises which receive financial support will also receive soft supports, as part of a whole package of support.

<sup>&</sup>lt;sup>1</sup> In 2014, the CEBs were wound down and have been replaced by Local Enterprise Offices (LEOs). The latter were set up to consolidate the efforts to promote micro-enterprises by the CEBs, Enterprise Ireland and local authorities.

#### **1.3 Rationale for Study**

The rationale for conducting this research is fourfold. Firstly, given the large amount of exchequer funding dedicated to supporting SMEs, such intervention warrants evaluation to determine if such expenditure is being used effectively and if it is achieving policy objectives. The requirement for evaluation of government supports for enterprise has been posited in both academic (Wren and Storey, 2002; Henry, Hill and Leitch, 2003; Lenihan, Hart and Roper, 2005) and practitioner publications (OECD, 2004). Indeed, the most recent Irish enterprise policy document, '*Enterprise 2025: Ireland's National Enterprise Policy 2015-2025*' called for 'robust' and 'independent' evaluations in order to inform the development of policy (DJEI, 2015b). This thesis conducts such an independent evaluation of Irish supports for SMEs using a robust methodological approach.

Secondly, as presented in Chapter 4, there are a range of research papers which outline how such support should be evaluated. Among the most prominent of these is Storey's (1998) Six Steps to Heaven framework. This outlines six levels of evaluation, each more sophisticated than the last. The majority of evaluations that have been completed to date have been less sophisticated when compared to Storey's (1998) framework. These evaluations typically only examine data or perspectives of supported enterprises. However, the more sophisticated steps in this framework suggest employing control groups of unsupported enterprises as a means to identify the difference that support makes to enterprises. As described in Chapter 5, this research conducts such an evaluation comparing enterprises which had received support, with those which had applied for support and been rejected, and those enterprises which had never applied for support.

Thirdly, the aim of conducting evaluations of support is typically to identify additionality, which is defined as the additional economic activity as a result of intervention (Lenihan, Hart and Roper, 2005). However, in the process of evaluations a number of dysfunctions of support have been discovered and measured, and have the potential to detract from the additionality created by support. For the purposes of this research, these have been classified as 'inefficiencies' and include deadweight, information asymmetries between government support agencies and SMEs, rent seeking by SMEs, substitution of private finance with public funds by SMEs, misperception of market failure by government, selection bias by government agencies, the inappropriateness of support for the challenges SMEs face (Wren, 1994; Roper and Hewitt-Dundas, 1998; Lenihan, 1999; Bergstrom, 2000; Wren, 2003; Boter and Lundström, 2005; Tokila, Haapanen and Ritsilä, 2007). To date, these inefficiencies have primarily been examined in isolation and in different jurisdictions. As discussed in Chapter 4, this thesis presents a novel framework which describes the potential relationships between these inefficiencies. The elements of this framework are explored through the primary research to develop a more holistic perspective of the Irish system of enterprise support.

Fourthly, deadweight has been found to be the most prolific of the inefficiencies, which is defined and discussed in detail in section 4.4.3. Deadweight refers to a situation whereby the same results would have been achieved by a supported enterprise, had support not been available (Lenihan et al, 2005). Deadweight has been measured in both an Irish (Lenihan 1999; 2003; Hart and Lenihan, 2004) and international context (Heijs, 2003; Tokila and Haapanen, 2012; Sipikal, Pisár and Labudová, 2013) and has been found to impact significantly on the effectiveness of support. These previous studies have measured deadweight in terms of the propensity for an enterprise to proceed with a project or expansion in the absence of intervention. Such a measure is used in this thesis. However, these studies have only developed a limited understanding of why and how deadweight occurs. This research aims to develop a much greater understanding of deadweight.

#### 1.4 Objectives of Study

The overarching aim of this research is to develop a greater understanding of deadweight. It does so by initially identifying the prevalence of deadweight through evaluating perceptions of enterprise owner/managers which were recipients of support. However, this research also captures the perspectives of owner/managers of unsupported enterprises and those of the support agencies who allocate support to

enterprises. Furthermore, this research aims to explore the perceptions of both supported and unsupported enterprises to reveal features of enterprises that may influence the requirement for support, and the subsequent impact that the receipt or non-receipt of support has on the actions of owner/managers. Finally, this thesis seeks to explore the potential presence of other inefficiencies uncovered in previous studies, which may be present in the Irish system of enterprise support, in order to develop a more holistic view of support. Thus the aim of this research can be expressed as:

To gain an understanding of the concept and consequence of deadweight from the perspectives of enterprise support agencies and owner/managers of SMEs

In order to address the research question, the following objectives were developed:

- I. What are the reasons why enterprises seek financial support and what is the rationale for government agencies providing financial support?
- II. How do support agencies select enterprises for financial support and under what conditions is support allocated to enterprises?
- III. To what extent is financial support a catalyst for the development of recipient enterprises, relative to unsupported enterprises?

#### **1.5 Research Methodology**

The research methodology, as presented in Chapter 5, is guided by a pragmatic philosophical stance which has been adopted by the author. While a largely deductive approach is assumed, this research employs a mixed methodology, divided into three distinct phases of research.

The first phase involved conducting a survey among a sample of 160 Irish owned SMEs. The sample was selected from enterprises which operated within sectors which could potentially be supported by Enterprise Ireland and the CEBs. These SMEs were segmented into three distinct groups; those which had successfully applied for support from Enterprise Ireland and/or a CEB during the period 2008 to 2011, those which had

applied for support during the same period and been rejected, and those enterprises which had never applied for support up to the end of 2011.

The second phase involved conducting semi-structured interviews with 11 enterprise owner/managers who had responded to the survey, to gather more in-depth information and perceptions with respect to the answers which they had provided in the questionnaire.

For the final phase, 13 semi-structured interviews were conducted with staff members of both Enterprise Ireland and the CEBs. Through this phase a greater understanding is developed of the rationale for providing support, the objectives of applying for support and of the mechanics of the system of support in Ireland.

The findings from the survey were analysed using SPSS and where relevant, chi square and independent t-tests were conducted to determine if there was any evidence of statistically significant differences between the different cohorts within the sample. The transcripts from the two phases of interviews were coded manually in order to identify key themes, information relating to inefficiencies, and evidence of potential links between inefficiencies. The findings from each of the three phases are presented in individual chapters and cross analysed in a fourth chapter of this thesis. Finally, these findings were analysed in the context of the extant research on government enterprise policy and support.

#### **1.6 Contribution of this Research**

With respect to the context of this research, the rationale for conducting it, the objectives developed and the methodology employed, the following presents the contributions of this research:

1. Firstly, this research contributes to theory by developing a novel theoretical framework which brings together distinct concepts, which have been examined in isolation in the limited body of extant research on state support for enterprises. The framework (presented in Figure 4.5, Section 4.5) describes the potential relationships between inefficiencies and deadweight, and deadweight

and additionality, thus providing a more comprehensive and holistic theoretical view of enterprise support inefficiencies, than has ever been presented in prior research.

- 2. This research further contributes to theory through simultaneously testing for each of the inefficiencies associated with enterprise support, for the first time, thus developing a greater understanding of these as isolated concepts, of the links between these concepts and through identification of misconceptions of these concepts in previous literature concerning enterprise support evaluation.
- 3. Thirdly, this research makes a considerable methodological contribution. Previous studies of deadweight have solely examined it from the perspectives of supported enterprises, rather than also examining unsupported enterprises. This research not only followed Storey's (1998) recommendations of including a sample of unsupported enterprises in evaluation, but added to them. It did so through the inclusion of three cohorts of enterprises matched based on the sectors in which they operated: those which had been supported by state agencies, those which had been rejected for support by agencies and those which had never applied for support. Furthermore, the perceptions of enterprise support agency staff were captured, which are typically excluded from evaluations. This approach not only made a methodological contribution but a theoretical one, allowing for the development of more balanced arguments, and also informed the contextualisation of the research.
- 4. Fourthly, this research contributes to policy debate, in what was a particularly difficult era in Ireland's economic history. During the 2008 to 2011 period there had been an emphasis placed on job creation by government, while there had also been an impetus to maximise the impact in all areas of government expenditure. Through this research, the cost effectiveness of the provision of state enterprise support, as posited by the Irish state enterprise agencies and policy makers, has been challenged. Conversely, this research has offered insight into how the provision of support can positively influence an enterprise's actions.
- 5. Finally, despite being confined to the Irish context, this research has made a theoretical and methodological contribution to the evaluation of state intervention to support the growth and development of SMEs, in an international

context. Many of the concepts explored in this thesis and many of the features of the Irish enterprise support system are applicable in international jurisdictions. The concepts from the theoretical framework, the conceptualisation, the methodological development and the findings and discussion may all have lessons for other government's (both regional and national) enterprise policies and interventions for SMEs. Furthermore, the concepts and methodologies used in this research can be used in other jurisdictions to evaluate that government's enterprise policies and interventions for the development and growth of SMEs.

#### 1.7 Structure of the Thesis

Having introduced the topic of this research, this section outlines the structure of the main body of this thesis. The chapter titles are summarised in Figure 1.1 and discussed as follows. The second chapter of this thesis provides further background and context for this research. It commences with how SMEs and entrepreneurship are defined and presents the key metrics which indicate the population of both in the Irish context. It then identifies the importance of SMEs and start-ups to the Irish economy and discusses the challenges that they face.

Chapter 3 documents the development of Irish policy towards SMEs. This chapter contains a brief background of how Irish enterprise policy has developed over time, moving from an agenda of protectionism to one which prioritised foreign direct investment. This is followed by a more detailed discussion of how enterprise policy began to focus on indigenous enterprise in the 1980s, and was further honed to support SMEs in the 1990s. The chapter presents how SME policy has evolved since then, how it has adjusted in the wake of Ireland's economic crisis during the time period covered by this thesis, how it has developed since, and briefly presents the influence of the EU on SME policy. Finally, it examines the current support structures that have emerged from these policies.

Chapter 4 contains the literature review. It begins with an examination of policy classifications. It then articulates the economic rationale for government intervention in enterprise development. This is followed by a review of the key literature concerning

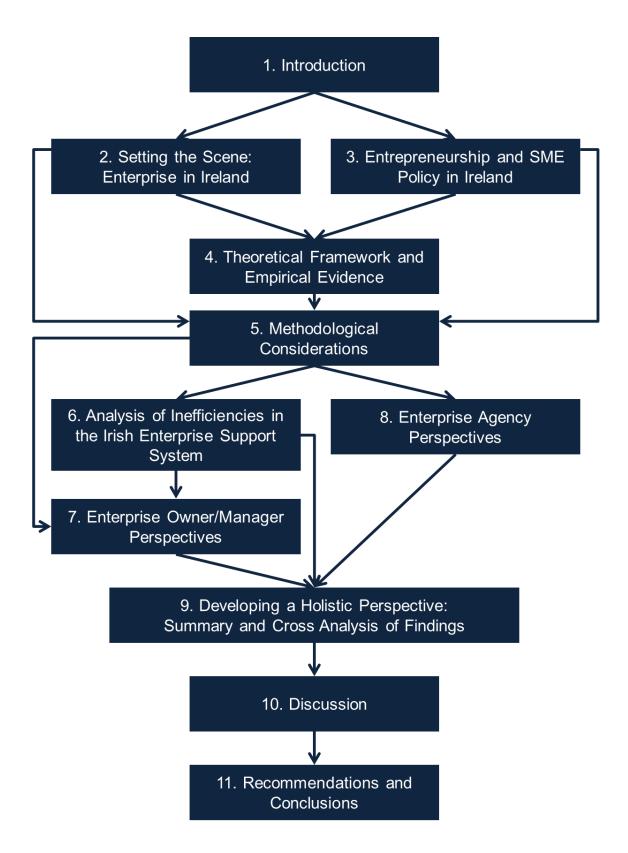
the evaluation of such interventions. Finally, it examines studies which have evaluated enterprise supports and discusses the inefficiencies found in support by these evaluations. It concludes with a synthesis of the key concepts discussed in this chapter to present a novel theoretical framework.

Chapter 5 presents the methodology for this thesis, which is informed by the discussion in Chapters 2, 3 and 4. It begins with the derivation of the research problem, followed by the research aims and objectives. It also presents the conceptual framework which underpins this research. Following a discussion of the research philosophy and subsequent research approach of the author, this chapter delves into the research design. It presents the methods used for all three phases of research, the samples used, the method of analysis and a discussion of the validity and reliability of the research.

Chapters 6 to 8 present the findings from the three phases of primary research. Chapter 6 presents the findings from the survey of enterprises. This is followed by Chapter 7 which details the findings from the follow-up interviews conducted with a sample of enterprise owner/managers who responded to the questionnaire. Chapter 8, the final findings chapter, presents the perspectives gathered from the interviews with enterprise agency staff. The key findings from these three distinct phases are summarised and cross analysed in Chapter 9.

Chapter 10 presents the discussion of findings in the context of the literature, while Chapter 11 outlines the recommendations and conclusions emerging from this study.

#### Fig 1.1: Structure of Thesis



Chapter 2 - Setting the Scene: Enterprise in Ireland

#### 2.1 Introduction

Since Birch's (1979) seminal work, small business has been recognised as the engine of economic growth, particularly in terms of job creation. This has been reiterated throughout the literature on entrepreneurship, small and medium enterprises (SMEs) and government enterprise policy (Telesis, 1982; Culliton, 1992; Enterprise Strategy Group, 2004). However, SMEs, and the entrepreneurs that drive them, face many challenges including higher failure rates, poor access to finance, lack of economies of scale to compete with larger enterprises, poor managerial competencies and poor access to new technologies (Hallberg, 1999; OECD, 2015; CSO, 2016a; 2016b; 2016c).

The purpose of this chapter is threefold. Firstly it sets the scene for SMEs during the time frame covered by this thesis (2008 to 2011). Secondly it identifies trends and metrics about SMEs in Ireland to facilitate an understanding of why the Irish Government intervenes through the provision of support to SMEs. Thirdly, this chapter informs data gathering and methodology (presented in Chapter 5) and the discussion and conclusions chapters (presented in Chapters 10 and 11 respectively).

This chapter begins by defining the terms enterprise, entrepreneurship and SMEs, which are used throughout this thesis. These terms are presented with respect to how they are measured in an Irish context and with respect to how they are applied in policy. Secondly, this chapter presents an overview of the level of entrepreneurship in Ireland and the scale of the Irish SME sector. Finally, this chapter concludes with an outline of the economic contribution of Irish SMEs and the challenges which they face.

#### 2.2 Defining and Measuring Enterprise Activity

This thesis is concerned with government intervention in the SME sector, thus it is important to develop an understanding of how SMEs are defined in the Irish context. The definition of SMEs becomes blurred when other concepts and titles are introduced, namely entrepreneurship and enterprise. Verheul, Wennekers, Audretsch and Thurik (2001) outlined that there are varying definitions of entrepreneurship. They stated that "entrepreneurship is a multidimensional concept, the definition of which depends largely on the focus of the research undertaken" (p. 9). When entrepreneurs are examined in relation to SMEs, as Thurik and Wennekers (2004) explained, entrepreneurs do not necessarily set up their own companies and are not constrained to small and medium enterprises, though these two groups overlap. As will be shown in the later sections of this study, policy is increasingly focused on entrepreneurship, as well as SMEs, under the umbrella term of enterprise policy. Thus it is important to consider both SMEs and elements of entrepreneurship when examining the context for government intervention.

Beginning with SMEs, it is important to set out what parameters define these enterprises. The European Commission (2016a) defines SMEs as those enterprises which employ less than 250 employees and have either a turnover less than or equal to  $\in$ 50 million, or a balance sheet total of less than or equal to  $\in$ 43 million. SMEs are further segmented into three groups of medium, small and micro enterprises, which are outlined in Table 2.1. Storey and Green (2010) highlighted that the definition of SMEs varies between countries around the world. Furthermore, they were critical of definitions such as that outlined by the European Commission as it does not take into account sector variances. For example a small mining company is not necessarily comparable in size to a small software development company. However, the European Commission definition is the one most commonly used in an Irish context. Furthermore, it is the definition used in Ireland to segment enterprises by EU and Irish enterprise policy.

Enterprise Category	Employees	Turnover		Balance Sheet Total
Medium	< 250	≤ € 50 million	OR	≤€43 million
Small	< 50	≤ € 10 million	ÖN	≤€ 10 million
Micro	< 10	≤ € 2 million		≤€2 million

Table 2.1: SME Segmentation

Source: European Commission (2016)

By comparison to SMEs, for the purposes of this study, the elements of entrepreneurship to be considered were best outlined by Verheul, et al. (2001). They

distinguished between two views of measuring entrepreneurial activity; the dynamic view and the static view. Within the dynamic view, the focus is on nascent entrepreneurs and start-up activity. Such a measurement can be seen in entrepreneurship studies such as the Global Entrepreneurship Monitor (GEM). Fitzsimons and O'Gorman (2014) defined nascent entrepreneurs as individuals who are actively planning a new venture, and who have engaged in some form of preparation for starting a business within the previous 12 months. For start-up activity, they examine new firm entrepreneurs, who are defined as individuals who wholly or partially own a business which is between 4 and 42 months old. Nascent entrepreneurs and new firm entrepreneurs combined is defined as total early stage entrepreneurial activity (Fitzsimons and O'Gorman, 2014).

By comparison, the static view examines the numbers of those in self-employment. Verheul et al. (2001) outlined that there is further division in this static view. For example, countries such as the UK, the Netherlands and France view the entrepreneur as those who operate an unincorporated business. These types of entrepreneurs use profits of their enterprise to cover expenses, rather than taking a salary, and have full personal liability for the running of the business. By comparison countries such as Ireland, Germany, Denmark, Portugal and Spain, include another group of individuals in their definition of entrepreneurs. This latter definition includes owner-managers who have both salary and a share of profits of an incorporated business and whose risk extends to the share of invested capital in the business. As demonstrated by Verheul et al. (2001) this latter measurement is used in an Irish context, and is utilised by organisations such as the Irish Central Statistics Office (CSO), Eurostat and the Organisation for Economic Cooperation and Development (OECD) for measuring the size of the SME sector.

As can be seen in the above definitions, entrepreneurship and SMEs overlap. For the purposes of this study, SMEs are those firms which fall under the definitions set out by the European Commission (2016), entrepreneurship is regarded as total early stage entrepreneurial activity, and enterprise is regarded as entrepreneurship and SMEs combined. The next section presents measurements of these definitions in the Irish context.

#### 2.3 Enterprise in Ireland

#### 2.3.1 Dynamic Metrics of Enterprise in Ireland

As mentioned in the previous section, the dynamic view of entrepreneurship includes nascent entrepreneurship and start-up activity. One of the key bodies of work in this area is the Global Entrepreneurship Monitor (GEM) which, in the case of Ireland, is compiled annually by Fitzsimons and O'Gorman (2011; 2012; 2013; 2014). These studies surveyed 2,000 Irish adults, aged 18 to 64, to gauge their aspirations, involvement and attitudes toward entrepreneurship.

	Nascent	New Firm	Early Stage	
	Entrepreneurs	Entrepreneurs	Entrepreneurs	
			2	
	%	%	%	
2014	4.4	2.5	6.5	
2013	5.5	3.8	9.2	
2012	3.9	2.3	6.1	
Average 2012-14	4.6	2.9	7.3	
2011	4.3	3.1	7.3	
2010	4.4	2.6	6.8	Time Frame for
<b>2009</b> <sup>3</sup>	-	-	-	this thesis
2008	3.3	4.3	7.6	
Average 2011-08	4	3.3	7.2	
2007	4.2	4.2	8.2	
2006	4.5	2.9	7.4	
2005	5.7	4.7	9.8	
Average 2005-07	4.8	3.9	8.5	

Table 2.2: Percentage of the population regarded as Early Stage Entrepreneurs, 2005-14

Source: Fitzsimons and O'Gorman (2011; 2012; 2013; 2014)

<sup>&</sup>lt;sup>2</sup> The TEA figure is the combination of Nascent Entrepreneurs and New Firm Entrepreneurs. Respondents could have qualified as both Nascent Entrepreneurs and New Firm Entrepreneurs. When calculating the TEA Rate, Fitzsimons and O'Gorman (2011) only counted individuals once. Hence the TEA Rate is lower than when adding the figures for Nascent Entrepreneurs and New Firm Entrepreneurs together. <sup>3</sup> No GEM study was completed in Ireland in 2009

Some of the key findings of the Irish GEM studies, for the ten year period 2005 to 2014, are presented in Table 2.2. However, this thesis examines enterprises which received support between 2008 and 2011 and therefore this period is of most relevance when examining start-up and enterprise trends. For 2011, Fitzsimons and O'Gorman (2012) found that the total rate of early stage entrepreneurs (TEA Rate) was 7.3% of the adult population. This equated to approximately 211,000 people. Included in this figure was 4.3% of the population (124,000 people) who classified themselves as nascent entrepreneurs and 3.1% of the population (91,000 people) who were new firm entrepreneurs. As exhibited in Table 2.2, these figures represented an increase in entrepreneurial activity compared to 2010. While Fitzsimons and O'Gorman (2011; 2012; 2013; 2014) do not provide any explanation as to why these figures vary from year to year, it is apparent from Table 2.2 that the average figures across all categories were lower during the period 2008 to 2011 compared to the average for 2005 to 2007. This would be expected as Ireland was experiencing an economic downturn which commenced in 2008. Regardless, the rates of entrepreneurship across all years demonstrate that a significant proportion of the Irish population is engaged in entrepreneurship and start-ups.

#### 2.3.2 The Static Metrics of Enterprise in Ireland

As previously mentioned, the static measure of enterprise, in the Irish case, includes the number of enterprises based on self-employed persons and owner-managers with a share in the enterprise. An examination of metrics based on this measure demonstrates that small firms are of great importance in terms of job creation, economic development and regional development. This has been recognised by academics and practitioners alike, in both a domestic and an international context. One of the earliest and most notable examples is Birch (1979) who illustrated how small firms (less than 20 employees), created 66% of new jobs in the US. Though this study has received criticism regarding its measures and methodology (Storey, 1994), it still highlighted the vital importance of small firms to economic growth. These sentiments have been echoed throughout the literature relating to enterprise, SMEs and government intervention in the area of enterprise. For example, Hanley and O'Gorman (2004) noted that one of the

key features of small business and indigenous enterprise is the level of employment that these enterprises provide and hence are significantly important for the economy.

Through examining the static enterprise metrics, it is clear that similar conclusions can be reached about the importance of SMEs in an Irish context. In 2011, 11,847 new enterprise births were recorded, which represented a decrease from the 13,461 new enterprises created in 2007. Persons engaged in these new enterprises fell from 14,922 in 2007 to 10,700 in 2011 (CSO, 2013). Despite the decline in both enterprises births and new jobs created by these enterprises, against the backdrop of the economic downturn, these figures still demonstrate the importance of start-ups for job creation. Furthermore statistics about the enterprise population reveal the importance of the Irish SME sector in terms of both employment and economic contribution, as exhibited in Table 2.3.

Classification	Employee	Enterprise	Persons	Turnover	GVA
	Band	s	Engaged <sup>4</sup>	(€m)	(€m)
Micro	<10	171,652	329,639	36,116	12,118
Small	10-49	14,522	276,721	60,217	12,974
Medium	50-249	2,421	232,469	67,132	16,032
Large	250+	460	384,218	162,663	48,186
Total		189,055	1,223,047	326,128	89,310

Table 2.3:	Enterprises	in Ireland	by size, 2011
1 4010 2.01	Lincerprises	III II CIGIIG	$o_j$ on $b_i$ , $b_i$

Source: CSO (2013)

According to the Irish Central Statistics Office (CSO, 2013) there were 189,055 enterprises in Ireland. Of these, more than 99.7% were SMEs. Further analysis demonstrates that over 90% of total enterprises were micro enterprises, approximately 8% were small, and over 1% were medium (CSO, 2013). Furthermore, SMEs accounted for over 68% of persons engaged in all enterprises. The Advisory Group for Small Business (2011) were able to offer a more detailed breakdown of enterprises (based on

<sup>&</sup>lt;sup>4</sup> Persons engaged is a measure used by the CSO and includes employees, proprietors and family members involved in the business.

2009 statistics) and explained that more than half of microenterprises were sole traders, while the majority of small enterprises employed less than 20 people. In terms of the economic contribution of SMEs, they accounted for more than 50% of turnover and 46% of GVA of all enterprises combined (CSO, 2013). While the number of SMEs decreased on previous years, the proportional contribution of SMEs to the overall population and employment contribution remained relatively constant throughout the economic downturn and during Ireland's economic recovery (CSO, 2016a).

Table 2.4 demonstrates the sectors in which Irish based enterprises operate. As will be discussed in Chapter 3 of this thesis, Irish Government financial supports are only available to enterprises operating in specific sectors and activities. Wholesale and retail enterprises, which forms the largest sector in Ireland and which is primarily made up by SMEs (CSO, 2016a), are excluded from support due to concerns about displacement (which is further discussed in Chapter 4). Similarly, the majority of enterprises within construction, transportation and storage, accommodation and food service, professional, scientific and technical activities and real estate activities are generally excluded from receiving support.

It is important to consider that eligibility for support is decided on a case by case basis and that the definition of the sectors which enterprise support agencies serve is different to the sector definitions used by the CSO. Eligibility for support will be discussed further in Chapter 2 and Chapter 8. However, the CSO statistics do provide an indicative figure of the approximate size of the population of enterprises which may be eligible for support, which is exhibited in Table 2.5. In 2011, there were 24,267 SMEs in sectors which could be eligible for support. Overall, the number of SMEs operating in these sectors and the people engaged in these SMEs declined between 2008 and 2011. However, they declined at a slower rate than the total population of SMEs.

Table 2.4 Enter	prises and e	enterprise births	by sector, 2011

Sector	Enterprises	People Engaged in Enterprises	Enterprise Births	People engaged in Enterprise Births
Mining and quarrying (B)	354	4,234	23	14
Manufacturing (C)	12,290	181,257	604	523
Electricity, gas, steam and air conditioning supply (D)	325	9,086	34	12
Water supply, sewerage, waste management and remediation activities (E)	853	7,935	64	34
Construction (F)	36,747	85,306	1,976	1,793
Wholesale and retail trade, repair of motor vehicles and motorcycles (G)	42,966	326,303	2,335	2,104
Transportation and storage (H)	10,171	78,133	545	579
Accommodation and food service activities (I)	16,340	146,024	1,278	1,752
Information and communication (J)	10,297	67,324	1,068	833
Financial and insurance activities excluding activities of holding companies (K-642)	5,454	94,328	372	280
Real estate activities (L)	11,423	22,244	663	586
Professional, scientific and technical activities (M)	30,440	103,386	2,137	1,595
Administrative and support service activities (N)	11,395	97,487	749	593
Education (P)	7,424	139,705	328	438
Business economy excluding activities of holding companies (B to N,-642)	189,055	1,223,047	11,847	10,700

Source: CSO (2016a)

In 2011 there were 12,163 SMEs involved in manufacturing in Ireland, a decline of over 10% since 2008. The number of people engaged in these enterprises declined by over 21% during the same period. SMEs in engineering activities and related technical consultancy demonstrated a similar decline. However, SMEs in IT related activities and scientific research and development demonstrated growth in both the number of enterprises and the number of people engaged in these enterprises.

	SMEs			People Engaged		
Sector	2008	2011	% Change 2008 to 2011	2008	2011	% Change 2008 to 2011
Manufacturing (C)	13,563	12,163	-10.3	131,646	103,463	-21.4
Telecommunications (61)	560	579	3.4	3,313	2,925	-11.7
Computer programming, consultancy and related activities (62)	6,381	6,521	2.2	21,692	22,106	1.9
Information service activities (63)	261	279	6.9	1,947	4,188	115.1
Engineering activities and related technical consultancy (7112)	4,796	4,302	-10.3	18,256	12,646	-30.7
Scientific research and development (72)	400	423	5.8	4,639	4,663	0.5
Total in sectors eligible for support	25,961	24,267	-6.5	181,493	149,991	-17.4
Business economy excluding activities of holding companies (B to N,-642)	215,737	188,595	-12.6	1,057,849	838,829	-20.7

Table 2.5: SMEs and people engaged in sectors eligible for support, 2008-11

Source: CSO (2016a)

However, it is important to note that not all of the SMEs included in Ireland's business demography are indigenous. The next section of this chapter isolates the contribution of indigenous SMEs. This contribution is measured in terms of employment, gross value added (GVA), turnover, export focus and investment. The next sections also explore the weaknesses of Irish SMEs and the challenges that Irish SMEs face, which in turn provides the rationale for the Irish government to intervene with various policies and supports.

# 2.4 Indigenous SMEs: Contributions and Challenges

The previous sections of this chapter have provided the figures for the population of Irish enterprises and have outlined the relative importance of SMEs in terms of their contribution to the Irish economy. However, these statistics only provide a limited understanding of SMEs in Ireland. Further analysis reveals that SMEs face a range of challenges and weaknesses. These become particularly apparent when only indigenous SMEs are considered. Such challenges and weaknesses explain, at least in part, why support for SMEs is warranted. The remainder of this chapter discusses these features drawing from more detailed statistical analysis.

#### 2.4.1 Economic impact and employment

When the figures outlined in Table 2.3 (in the previous section) are analysed further, SMEs account for lower levels of turnover and GVA per employee and per enterprise, relative to large enterprises. This is symptomatic of the lower economies of scale achieved by SMEs, and also their concentration in lower value sectors and also in the services sector.

Lawless, McCann and McIndoe-Calder (2012) provided further analysis of the contribution of SMEs within the Irish indigenous sector by examining data from 2009 which was not included in publicly available statistical releases. According to their research, indigenous enterprises as a whole account for approximately 49% of GVA. When large enterprises are excluded from this sample, this figure declined to just below 36%. In terms of employment, indigenous enterprises account for 78.2% of employment while indigenous SMEs account for 64%. Similar to CSO findings, SMEs economic contribution on a per employee basis is considerably lower relative to larger firms, and particularly when compared to large foreign owned enterprises.

While the contribution of indigenous enterprises to GVA is lower than that of foreign owned enterprises, the contribution of indigenous enterprises to aggregate investment is higher. Indigenous enterprises as a whole account for 63% of aggregate investment. However, indigenous SMEs only account for 35% of aggregate investment. When indigenous SMEs' contribution to both GVA and aggregate investment is measured per employee, it is considerably lower than both larger enterprises and multinational enterprises located in Ireland.

In the wake of falling domestic demand, there has been a strong policy emphasis on export-led recovery for Ireland (Government for National Recovery, 2011-16). However, as Lawless et al. (2012) discovered, although 72% of workers were employed by SMEs, 56% were employed in non-exporting SMEs. In fact only 7% of Irish owned SMEs are engaged in the export market (Lawless et al, 2012).

#### 2.4.2 Enterprise Research and Development and Innovation

Small businesses and entrepreneurs are cited as having poor access to new technologies or may face barriers and market failures to prevent them from engaging in innovative activities (see the Rationale for Government Intervention section (Section 4.1.2) of the literature review). The low level of engagement in Research and Development and Innovation (R&D&I) activities in the Irish context is reflected in the following statistics. Small enterprises (those employing less than 50 people) only accounted for 26.6% of business expenditure on R&D in 2011 (CSO, 2016b). In terms of the wider scope for innovation, according to the CSO (2012a) Community Innovation Survey 2010, 48.8% of enterprises in the 10 to 49 employee bracket are regarded as having technological innovation activities. This compares to 75.9% of medium and 85.8% of large companies. The participation in innovative activities declines even further for small enterprises when foreign enterprises are excluded. Much of this may be due to the structure of the enterprise sector with small, indigenous enterprises being more concentrated in traditional sectors relative to their foreign owned and larger counterparts.

#### 2.4.3 Enterprise Deaths

A key metric for measuring enterprise deaths is the turbulence rate (Verheul et al, 2001). This measures the net increase or decrease in the number of enterprises. The Advisory Group for Small Business (2011) compiled CSO statistics to show this in the context of Irish small firms. According to their research, the number of small enterprises declined by 3.8% between 2007 and 2009. As a result, the number of people engaged in small enterprises declined by 15.5%. More recent statistics reveal that enterprise deaths exceeded enterprise births by 10,700 in 2009, 7,100 in 2010 and 6,229 in 2011 (CSO, 2014).

Through examining other publications, it is clear that the majority of enterprise deaths are confined to the SME sector, in particular micro-enterprises. In their business demography analysis of 2011, the CSO (2016c) noted that there were 18,076 enterprise deaths in that year. Only 165 of these were found across small, medium and large

enterprises. The remainder were among micro enterprises. When examined in the context of active enterprises within each employee size class, it can be seen that the larger the enterprise, the lower the likelihood of failure is, as exhibited in Table 2.6.

	Active Enterprises	Enterprise Deaths	Deaths as % of active enterprises
All employee size classes <sup>5</sup>	189,055	18,076	10%
0 employees	89,573	13,758	15%
1-4 employees	66,145	3,819	6%
5-9 employees	16,451	334	2%
10 or more employees	16,886	165	1%

Table 2.6: Enterprise Deaths, 2011

Source: CSO, 2016c

Further indicators were examined by Fitzsimons and O'Gorman (2012). Within their survey (conducted in 2011), 2.8% of adults surveyed closed a business in the previous 12 months, which equates to 81,000 people.

#### 2.4.4 SME Finance

As will be discussed in Chapter 4 of this thesis, poor access to finance for SMEs is due to market failure and is regarded as the primary rationale for government intervention in the SME sector. However, in the Irish context, SME access to finance has only been included in national statistics releases since 2007 and since then has only been reported for 2010 and 2014. In 2010, during the time period covered by this thesis, small enterprises were much less likely to have applied for finance of any type relative to medium and large enterprises, as presented below in Table 2.7. Furthermore, small enterprises had lower success rates in applying for both loan and equity finance, relative to medium and large enterprises (CSO, 2016c). Compared to 2007, SMEs had lower levels of success in applying for all types of finance in 2010 (CSO, 2011).

<sup>&</sup>lt;sup>5</sup> Statistics for NACE Code B to N, and excluding activities of holding companies (code 642)

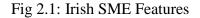
Size of Enterprise (employees)		10-49	50 and over		
	Applied for finance	Succeeded with application	Applied for finance	Succeeded with application	
Source of finance	%	%	%	%	
Loan finance	29.2	66	39.1	78.8	
Equity finance	4.2	63.6	4.5	75	
Finance, excluding loan and equity finance	19.2	80.5	29.3	79.7	

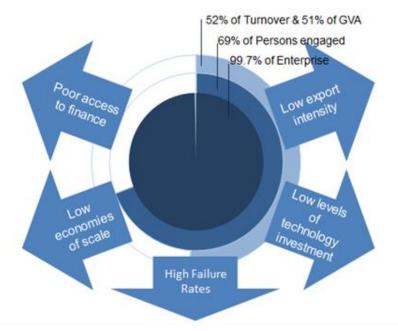
Table 2.7: Rates of application for finance and success in obtaining finance, 2010

Source: CSO (2016c)

# 2.5 Summary

The purpose of this chapter was to set the scene for SMEs during the time frame covered by this thesis (2008 to 2011) and to identify trends and metrics about SMEs in Ireland to facilitate an understanding of why the Irish Government intervenes through the provision of support to SMEs. This chapter demonstrated that SMEs represent 99.7% of the total enterprise population and 69% of employment. They also make a significant contribution to total turnover of enterprises and GVA. However, SMEs face a number of challenges. The contribution of SMEs and the challenges that they face are summarised in Figure 2.1.





Source: Developed by the researcher based on statistical review

Given the significant numbers of jobs that SMEs create, these enterprises are worth fostering through government policy. However, the SME sector has many weakenesses and challenges such as low economies of scale, low export intensity and low levels of R&D and innovation. The importance of the SME sector is also being diminished in the current climate by high failure rates, which in turn is leading to a net decline in the number of SMEs and diminishing the impact of entrepreneurial activity in terms of start-ups. Finally, all of these challenges are being compounded by poor access to finance which is impacting on SMEs' ability to survive and grow (The Advisory Group for Small Business, 2011). These challenges to SMEs demonstrate that they require support. The Irish Government has had policies in place to support indigenous SMEs for over 30 years, which have been aimed at addressing some or all of the challenges described in this chapter. Given that these policies have been in place and have been evolving for so long, it is important to understand if they have been effective in addressing the SME challenges that have been outlined in this chapter. In order to evaluate these policies, it is important to first understand what they consist of and how they have evolved over time.

The next chapter of this thesis examines the policy that is employed to support SMEs and entrepreneurial activity in an Irish context. It examines how this policy has evolved over time and how successive policies have impacted on entrepreneurship and SMEs, and the legacy of these impacts on the structure of SMEs and more modern policies. Finally it examines SME and entrepreneurship policy which was in place during the timeframe covered by this thesis and how these policies address the issues that Irish SMEs face. Chapter 3 - Entrepreneurship and SME Policy in Ireland

#### 3.1 Introduction

Dennis (2005) defined public policy as "*a reasonably high-level, coherent, overall plan with goals and strategic objectives put forward by a government or a government entity*" (p. 2). Within Ireland there are many such plans which have been developed over time in response to political motivations, industry structure, and most importantly, macro-environmental influences.

The aim of this chapter is to review how Irish policy has evolved and how the emphasis of policy has changed to become more focused on SMEs and entrepreneurship. This chapter also aims to highlight the legacy that older policies have had on current policy with respect to the challenges that SMEs face and how more modern policies and policy tools are developed. To this end, this chapter tracks how these policies have changed since the foundation of the State to date, and particularly focuses on policy developments in Ireland since the 1980s. It also draws on how EU membership has influenced Irish policy and how policies have converged across Europe as there is a greater emphasis to create "good practice" in the development of the SME sector.

# 3.2 The Background of Irish Industrial Policy

At Irish Independence in 1922, the Irish industrial base was highly underdeveloped relative to its European neighbours. More than half of the workforce was engaged in agriculture, and trade was almost exclusively with Britain, accounting for approximately 90% of exports and 80% of imports. Approximately 10% of the workforce was engaged in manufacturing and much of this was concentrated in food and drink manufacturing. During the 1930's the policies to develop the enterprise base in Ireland were focused on protectionism (Department of Enterprise, Trade and Employment (DETE), 2003). Key measures included the introduction of higher tariffs on imported goods in 1932, the *Control of Manufactures Act* in 1932 and 1934, which restricted foreign ownership of Irish factories, and the establishment of the Industrial Credit Corporation to provide finance to indigenous factories. This protectionist strategy did have some short term successes, resulting in an increase in manufacturing

employment. However, this was short lived and created structural problems within the enterprise base. Much of the new production was centred around sectors such as clothing, and efficiency and productivity in these sectors were low (DETE, 2003).

With the backdrop of the post-war boom in Europe, the limitations of protectionist policies became apparent. Living standards and employment were lower relative to Ireland's European counterparts (DETE, 2003). *The Industrial Development Authority Act* (1950) paved the way for addressing the dysfunctions in the Irish economy. Its purpose was to set up an agency to promote the development of the Irish enterprise base with its remit outlined in Table 3.1.

	Table 3.1 Functions of the Industrial	Development Authority (IDA)
--	---------------------------------------	-----------------------------

(i)	To initiate proposals and schemes for submission to the Minister for the creation and
	development of Irish industries
(ii)	To survey possibilities of further industrial development and advise the Minister thereon
(iii)	To advise the Minister on steps necessary and desirable for establishing new industries
(iv)	To advise the Minister on steps necessary for the expansion and modernisation of existing
	industries
(v)	To give on request advice and guidance to persons contemplating starting new industries or
	expanding existing industries
(vi)	To investigate the effects of protective measures, with special reference to employment,
	prices, quality of goods, wage levels and conditions of employment and report thereon to the
	Minister
(vii)	To examine any proposals referred to the Authority by the Minister relating to the imposition
	or revision of tariffs, quotas or other protective or developmental measures, and to investigate
	the probable effects of such proposals, with special reference to employment, prices, quality
	of goods, wage levels and conditions of employment
(viii)	To advise on any matter relating to industrial development referred to the Authority by the
	Minister

Source: Industrial Development Authority Act (1950)

The 1950 Act was followed by a series of other legislation aimed at promoting industry and promoting growth through exports. *The Underdeveloped Areas Act* (1952) made provision for the establishment of a new agency; An Foras Tionscail. This provided grant finance of 100% for land and buildings and 50% for machinery to companies setting up operations in underdeveloped areas. Further grant funding was provided to other areas under the *Industrial Grants Act* (1956) which allowed the Industrial Development Authority (IDA) to provide funding for up to two-thirds of land and buildings in geographical areas not covered by the 1952 act. In terms of export promotion, *The Finance (Miscellaneous Provisions) Act* (1956) provided 50% tax relief on profits owing to exports. This was later extended to 100% on profits resulting from export.

Despite these advances in policy, there were still protectionist restrictions in place. The publication of the policy document *Economic Development* in 1958 highlighted that free trade should be promoted above protectionism and placed an emphasis on the importance of Foreign Direct Investment (FDI). In 1958 the *Control of Manufactures Acts 1932 and 1934* were eased. However these were not fully repealed until 1964. Furthermore, it was not until 1965 that the *Anglo Irish Trade Area Agreement* saw a plan to phase out tariffs on the import of British Goods over a period of 10 years, and 1973 when Ireland's EEC membership saw a plan to phase out tariffs on goods from other EEC members over five years (DETE, 2003).

Combined, these policy changes resulted in increased levels of FDI up until the late 1970's. However, there were many dysfunctions in the Irish economy which still existed or resulted from the macroeconomic environment. Previous protectionist policies, though being repealed, had a legacy which was felt across indigenous industry. Indigenous enterprise was much more focused on traditional sectors. Furthermore, these had low levels of productivity, were uncompetitive in the international environment and were primarily focused on the domestic and British markets. By comparison, foreign owned enterprise in Ireland was focused on more modern sectors and oriented toward markets outside of Ireland. Furthermore, employment fell in both indigenous and foreign owned sectors in Ireland amidst the backdrop of challenging macroeconomic conditions in the 1970's and 1980's (DETE, 2003). These challenges set the context for the development of Irish enterprise policy in the subsequent decades, and resulted in the formulation of key policy strategies which shaped the structure of support for SMEs in

Ireland. These key strategies and documents are summarised in Figure 3.1 and will be discussed in chronological order in the next sections.

Contaxt		Strategie	s Legislation
Context	1920	Strategie	
Irish Independence	1020		
Low levels of industrialisation and trade and an agriculture based economy	1930	otectionist Era – restrictions on de and foreign ownership.	Control of Manufactures Act (1932 & 1934) Industrial Credit Act (1933)
	1940		
Ireland isolated from European post-war boom, compounded by low levels of productivity in Irish industry and lower standards of living.	1950	ntify impact of protectionism. Fo regional, industrial and export g onomic Development (1958)	rrowth (1950) Underdeveloped Areas Act (1952) Industrial Grants Act (1956)
	1000	poses end to protectionism and phasis on FDI	Finance (Miscellaneous Provisions)
Anglo Irish Agreement (1965) – Tariffs on British goods to be phased out over 10 years.	1960		Act (1956)
EEC Membership (1973) – Tariffs on EEC goods to be phased out over 5 years.	1970		
Irish Industry uncompetitive and focused in traditional sectors. Employment in both foreign and domestic enterprise falls with challenging economic conditions in 1970's and 1980's	1980	esis Report (1982) proposes a higher value indigenous enterp I an end to excessive grants fo	rise The Industrial Development Act (1986)
Ireland exposed to shocks from the global economy in the early 1990's	1990	indig lliton (1992) proposes stronger phasis on SMEs City and Co	0% of funding to be dedicated to enous enterprise (1988) ounty Enterprise Boards established (1993) reland established (1998)
Ireland booming, but faces competitivene challenges	2000 ss	terprise Strategy Group (2004)	
Ireland enters recession. Unemployment climbs to 14.3% by 2012	2010	ess, competitiveness, and bank tional Policy Statement on Entre tion Plan for Jobs (2012, 2013, 1	epreneurship in Ireland (2014)
	2020	erprise 2025 (2015)	

# Fig 3.1: Timeline of Irish Enterprise Policy Evolution

Source: Author

# **3.3 SME Policy in the 1980s: Moving toward supporting Indigenous Enterprise**

The first strategy to address the imbalance of policy focus on FDI over indigenous enterprise was the Telesis Report (1982). The report was sponsored by the National Economic and Social Council as one of five studies concerning industrial development. It aimed to assess how employment in manufacturing could be expanded as was the goal of Government at the time. The report conducted an analysis of policy at the time and framed this in the context of the Irish enterprise base and Irish competitiveness. The study was complimentary of Ireland's track record in attracting FDI, and praised the work of the agencies, most notably, the IDA. It was also complementary of the wider policy goals stating that "the philosophy, approach, institutions and policies associated with Ireland's industrial development are fundamentally sound" (p. 35). However, the report proposed that the grants targeting FDI projects were excessively high. Some of the key findings of the report, and of particular relevance to this current study, concerned indigenous and small industry. Telesis (1982) found that only a small portion of industrial policy funding was directed at indigenous industry. The funding that was in place was often allocated to companies in non-traded<sup>6</sup> sectors. Furthermore, though a significant amount of jobs were approved for support, only a small percentage of these were realised. Finally, other issues such as the concentration of indigenous industry in unsophisticated, traditional sectors, few linkages between foreign and indigenous enterprise, and low levels of export activity by indigenous enterprise were all highlighted as issues hindering economic growth. Based on their analysis, Telesis (1982) developed a series of recommendations, highlighted in Table 3.2.

<sup>&</sup>lt;sup>6</sup> Non-traded was a term that was used to describe enterprises which did not engage in export activity

Budget Levels	A substantial reduction of average grant levels for many foreign owned firms
and Resource	locating in Ireland
Allocation	A sharp reduction of grants given to indigenous companies for non-traded
	businesses (with exception of high-skilled sub-supply industries)
	A substantial increase in funds devoted to the development of indigenous
	export business
The	The development effort aimed toward new indigenous industry must be
Development	reorganised to emphasise the building of structurally strong Irish companies
of Indigenous	rather than strong agencies to assist weak companies
Industry	The government should encourage greater participation by large indigenous
	companies and by the indigenous financial community in traded and skilled
	sub-supply businesses in Ireland
	The grants available for indigenous industry should address specific cost
	penalties and should be directed to long term resolution of these penalties
	Consideration should be given to further use of loan, loan guarantee,
	redeemable equity and participative loans, for providing incentives to foreign
	firms
	In order to spur indigenous industry development better advantage should
	be sought from foreign companies operating in Ireland
	New joint efforts should be undertaken to oversee the development of
	Ireland's resource-based industries
	Ireland's Industry associations should play a more direct role in assisting the
	development of their industries
Control of Irish	Better means are necessary to measure the progress of Ireland's industrial
Industrial	policy
Policy	Government should gain better control of tax-based leasing and Section 84
	disbursements <sup>7</sup>
	The Government departments should reassume a more active policy role
the second s	

 Table 3.2: Recommendations of the Telesis Report, 1982

Telesis (1982) was not critical of the level of government spending on enterprise as a whole and even suggested that *"the level of funds devoted to Irish industrial development should be as high as the Irish people can bear"* (p. 35). However, it suggested that the allocation of these limited resources should be redirected. This would involve a shift in high levels of support from FDI and non-traded indigenous sectors, to export focused, indigenous enterprises. It also made recommendations as to how such

<sup>&</sup>lt;sup>7</sup> Section 84 was an element of Irish Corporation Tax which allowed for tax avoidance

indigenous enterprise should be supported. Of the 13 recommendations, seven were focused on developing the indigenous enterprise base. This involved building competencies within companies, building stronger relationships between enterprises and formation of clusters, assistance in export and overseas marketing for indigenous enterprise, and greater involvement by enterprise representative bodies. There were also recommendations focused on the control of Irish industrial policy, including a focus on high value job creation rather than solely increasing the number of new jobs, tax incentives for banks to fund industrial development, and greater oversight of policy direction by government departments (Telesis, 1982).

The government response to the Telesis Report, was outlined in the 1984 White Paper on Industrial Policy. This did not accept all of Telesis recommendations but did concur that there should be a greater emphasis on indigenous enterprise (DETE, 2003). The Industrial Development Act (1986) placed this strategy into law. This act was more detailed than many of the previous acts concerning industrial policy. It called for a review of industrial performance every three years, and introduced support for acquisition of technology. It also built on previous acts (most notably The Industrial Development Act 1978 and The Industrial Development Act 1981) introducing more scope for supporting expenses incurred by companies engaging in training, research, and made extra provision for loan guarantees, capital grants, employment grants and equity funding. Outside of these pieces of legislation a range of other measures were introduced including The National Linkage Programme in 1985 which encouraged overseas companies to avail of sub-supply opportunities from the indigenous enterprise base, and inter-agency Company Development Programme, aimed at supporting high growth potential indigenous enterprises. In 1988 the IDA was more formally split into two distinct divisions; one for supporting FDI, and the other for supporting indigenous industry. Funds devoted to indigenous industry were to be increased to 50% of total funding for the agency (DETE, 2003).

Such policies resulted in some success in terms of developing the indigenous enterprise base and represented a move to rebalance the emphasis of previous policies on foreign investment to a greater focus on indigenous enterprise. However, the policy was not cognisant of sectors and made no specific references to SMEs, essentially treating the indigenous enterprise population as a homogenous entity. Furthermore, high levels of unemployment persisted throughout the 1980s. By the beginning of the 1990s Ireland was exposed to shocks from global recession. This meant high levels of unemployment and policy needed to be reviewed under such economic conditions.

# 3.4 Policy in the 1990s: Moving toward supporting indigenous SMEs

While the policy emphasis in the 1980s had provided for more emphasis on the wider indigenous enterprise base, the policy in the 1990s began to place emphasis on the SME sector. This was expressed through a number of key policy documents, the first of which was *The Culliton Report* (1992). The Industrial Policy Review Group was set up by the then Minister for Industry and Commerce in 1991. The primary goal of the group was to review industrial policy with special attention for the international trading indigenous sector, to make recommendations as to how this sector could be developed to generate wealth and create employment. This was particularly pressing given that at the time of completion there were approximately 260,000 unemployed in the country, which resulted in an unemployment rate of 19%.

DETE (2003) outlined that the Culliton report was the first such strategy document to look beyond grants, tax incentives and agencies, and to take a more holistic view of the environment for indigenous enterprise. The report outlined that FDI would not provide a sufficient base in its own capacity for national advantage in advanced industries (DETE, 2003).

The Culliton Report (1992) outlined 54 recommendations in total across 6 areas including taxation, infrastructure, education, enterprise and technology, support for industry, institutional strengthening and the food industry. In terms of FDI, the report argued that grant-aid should be squeezed, and that budgets should be strictly adhered to. In place of this there should be additional funds directed toward cluster formation in core segments and niche areas of national advantage. In terms of indigenous enterprise, it outlined that a "hand-out mentality" had been created through grant aid, and that there should be much more emphasis on equity finance through the support agencies. It also placed emphasis on skills development and the building of human capital appropriate to

the enterprise base, throughout the education system. The report also recommended institutional change. It called for the three year review of industrial performance, enacted in the earlier *Industrial Development Act* (1986), to be extended to evaluate industrial policy, the establishment of a policy advisory board, the establishment of a new agency to assume the role of promotion of indigenous industry from the IDA, and regional boards to promote local enterprise.

Due to the large number of recommendations the government established the Moriarty Task Force (Dáil Éireann Debate, 1992) to consider the direction of policy. The recommendations of the Culliton Report had a profound impact on key areas of enterprise policy including the formation of the National Development Plan (NDP) 1994-99, the reorganisation of the development agencies and the adoption of preference for repayable finance over grant funding. In 1993, The City and County Enterprise Boards (CEBs) were established to promote local, micro-enterprise, Leader Groups were set up to promote rural development, and Area-Based Partnerships were established to develop disadvantaged areas (DETE, 2003).

Another core development was the founding of Forfás in 1993. This was set up as a policy advisory group, and contained a number of advisory bodies including the National Competitive Council, The Expert Group of Future Skills Needs, and the Irish Council for Science, Technology and Innovation (DETE, 2003). Since its foundation many of the key policy strategy documents have been formulated by or through Forfás, which will be discussed throughout the remainder of this section.

The first of these strategy documents was *Shaping Our Future* (1996). This document showed an even greater shift from grant mechanics to environmental factors, than the Culliton Report did. It had key recommendations across the areas of public finances and taxation, competition policy, education and training, science and technology, infrastructure, the physical environment and the labour market. In direct reference to indigenous enterprise, the report highlighted the equity gap, particularly for smaller enterprises. It called for a greater role of state and state agencies in securing, matching and guaranteeing private sector investment in SMEs. It also addressed tax policy to induce investment, through the lowering of capital gains tax. However, many of the

recommendations were focused on developing skills within enterprises through soft support, such as the provision of business advisory services, provision of technology advisory services and export development services through agencies such as Forbairt<sup>8</sup>. It also called for greater coordination between the industrial agencies and FÁS (the state training body) and third level institutions for skills development, education, and technology transfer (Forfás, 1996).

The *Shaping Our Future* (1996) report was highly sector focused and highlighted the key strategic sectors for indigenous enterprise development including medical and surgical, pharmaceuticals, food and drink, electronics, and publishing and printing. It also placed a greater emphasis on the potential for indigenous enterprise to focus on the services sector, and outlined that agencies should expand their remit to foster enterprises within the services sector. In terms of manufacturing it emphasised the need for modernisation and innovation in traditional sectors, and the focus of new enterprise on modern manufacturing or niche, high value segments of traditional sectors. Finally, the report was one of the first documents to make reference to additionality and deadweight in relation to state provision of supports for the services sector. With the targeting of services enterprises, enterprise agencies were moving outside of their traditional remit of manufacturing. The report recommended that agencies should be selective in choosing enterprises to support, highlighting the "very real danger" of issuing support to activities which would have gone ahead in the absence of such support (Forfás, 1996).

*Enterprise 2010* (2000) was the first core policy document for the new millennium. The report reflected positively on how policy had evolved and that the formulation and implementation was positive for the enterprise sector. The contents of the strategy followed the overarching themes of the 1996 document. These themes included regulation and competition, public administration, the fiscal environment, labour supply, education and skills, science and technology policy, the planning process and economic infrastructure, all in the context of creating a suitable environment for enterprise development. However, the direction of policy had shifted. The emphasis was now on productivity and, from a support point of view, shifting from capacity building to capability building. There was also a focus on moving the Irish enterprise base

<sup>&</sup>lt;sup>8</sup> The first Irish agency dedicated to solely supporting indigenous enterprise, formed when the IDA split

further up the value chain, through sector concentration, skills and training, and higher levels of investment in R&D. A regional dimension was also introduced, with recommendations to encourage industry to locate outside of rapidly growing urban areas. The document also emphasised that state spending should be used as much as possible to leverage private sector investment. Finally, the EU dimension had a more profound impact than in previous policies. EU state aid guidelines were introduced from the 1<sup>st</sup> January 2000 which placed a cap on the funding which could be provided to enterprises, particularly in regions demonstrating high levels of economic growth. As Ireland's economy was growing these caps were particularly influential on how much state assistance could be provided to enterprises (Forfás, 2000).

The final core strategy document for enterprise policy during Ireland's economic boom was by the *Enterprise Strategy Group* (ESG) (2004). The focus of this strategy was to develop expertise in International Markets to promote sales and to support R&D capability to move Irish industry up the value chain (ESG, 2004). The Department of Enterprise, Trade & Employment developed actions according to 27 recommendations in the report, under the categories of Enterprise Development Agencies & Policy Development, Science & Technology, Labour Force Development and Competition. This allowed for greater coordination between enterprise agencies and greater focus on export markets and R&D, while increasing funding for venture capital and seed capital.

# **3.5 Enterprise Policy since the Economic Downturn**

In the wake of the very severe economic contraction since 2008, policy primarily returned to its former goals of job creation, while maintaining some of its focus on competitiveness and high value sectors (OECD, 2014). A key challenge in the realisation of these policies has been to balance policy objectives against fiscal restraint.

In 2010 *Making it Happen: Growing Enterprise for Ireland* (Forfás, 2010) was published. The overarching theme of the strategy was continuing export led growth, while also addressing Ireland's cost competitiveness challenges. The policy document contained 40 recommendations for enhancing the business environment and promoting enterprise development. Among these were developing export markets, focusing on

innovation in non-traded sectors, facilitating access to emerging markets, and improving SME access to finance. The report had a significant number of roles for Enterprise Ireland including skills development, R&D development, export growth and productivity improvement. However the strategy also recognised that the biggest challenge to indigenous enterprise was lack of finance availability. It further recognised that direct interventions, such as financial support, would not be as effective unless the supply of private sector finance was improved:

"Currently, the single most important issue for the Enterprise Ireland client base is access to finance. Without an improvement in this situation, the range of instruments available to Enterprise Ireland is likely to have a reduced impact" (p. 87, Forfás, 2010)

SMEs and Entrepreneurship were also contained within the wider government strategy for balancing public finances and promoting economic growth; *Government for National Recovery 2011-16*. Within SME specific policies there was an emphasis on public procurement from SMEs, new bankruptcy legislation, reduction of compliance and bureaucracy costs through simplification of the tax system for micro-enterprises and systems aimed at the reduction of various administrative burdens. In addition to this, various measures were outlined to facilitate access to finance including a temporary, partial credit guarantee scheme, a Microfinance Start-Up Fund and development of the venture capital industry in Ireland (Government for National Recovery 2011-16, 2011).

The measures listed in the Programme for Government were re-iterated and expanded upon in the *Action Plan for Jobs* (DJEI, 2012). The plan contained over 270 actions to be implemented by over 36 government agencies, under the following categories:

- 1. Building competitive advantage through innovation, cost competitiveness, skills and infrastructure.
- 2. Supporting indigenous start-ups.
- 3. Assisting indigenous business to grow.
- 4. Attracting inward entrepreneurial start-ups.
- 5. Developing and deepening the impact of FDI.
- 6. Developing employment initiatives within the community.

7. Exploiting sectoral opportunities in manufacturing, health/life sciences, green economy, agri-food, ICT hardware and software, cloud computing, digital games, tourism, international financial services, business process outsourcing/shared services, education services, construction, retail/wholesale, and arts, culture and creative enterprise.

The aim of the strategy was considerably more specific than any policy documents that had gone before, with a target of a 100,000 net increase in jobs by 2016, 50,000 coming directly from the actions contained within the plan, and a further 50,000 created as an indirect result. It was envisaged that a further 100,000 net job increase would be created between 2016 and 2020 (DJEI, 2012).

The actions were also considerably more specific than previous documents. Among them, and of particular relevance to SMEs and entrepreneurship, were finance measures such as a Development Capital Scheme to support medium sized companies with job growth and/or export growth potential, the credit guarantee scheme and micro-finance fund (as outlined in the programme for government), and Innovation Fund Ireland to invest in small Irish based high-tech companies. The delivery of enterprise support was also highlighted with the proposed abolition of the City and County Enterprise Boards in favour of the establishment of a new 'one-stop-shop' Micro Enterprise and Small Business Unit within Enterprise Ireland, a new Potential Exporters Division within Enterprise Ireland. Further cooperation between IDA and Enterprise Ireland to assist in sub-supply opportunities for indigenous SME with multinationals present in Ireland, and the provision of mentoring for SMEs from multinationals were also stated as aims. In addition to these measures there was also a strong emphasis on R&D, clustering, and exploring market opportunities for SMEs. Finally, there was also a plan to attract overseas entrepreneurs to start-up their businesses in Ireland (Action Plan for Jobs, 2012). This document has been followed by the Action Plan for Jobs 2013, Action Plan for Jobs 2014, and Action Plan for Jobs 2015 (DJEI, 2013; 2014a; 2015a). These documents introduced additional measures to support and expand on the 2012 plan. These measures included a wide range of actions for making finance more accessible to SMEs, actions for developing SMEs' online and export market presence and encouraging R&D and innovation within the SME sector. While some of these measures concerned financial state sponsored enterprise supports, the majority of measures in relation to SME access to finance involved intervention in private sector supply of finance, such as loan guarantee schemes and development of the venture capital market for SMEs. One of the key developments in the area of SME support was the foundation of Local Enterprise Offices, as part of the *Action Plan for Jobs 2013* (DJEI, 2013). These were to operate under Enterprise Ireland and replace the CEBs, building on the plans for the one-stop-shop Micro Enterprise and Small Business Unit contained in the 2012 plan.

There was also a greater emphasis on entrepreneurship in Irish policy through the publication of the *National Policy Statement on Entrepreneurship in Ireland 2014* (DJEI, 2014b). The policy document set out targets to increase the number of start-ups, survival rates of start-ups and capacity of start-ups to grow by 25%. The policy has objectives across six key themes; 1) Culture, human capital and education, 2) Business environment and supports, 3) Innovation, 4) Access to finance, 5) Entrepreneurial networks and mentoring and 6) Access to markets. In terms of the provision of finance to entrepreneurs, the document emphasised the role of the state in facilitating the raising of finance, as opposed to solely providing it:

"The role and influence of the State should not be over emphasised. The support networks formed between entrepreneurs and between entrepreneurs and investors can be equally important, arguably even more important, sources of essential support for start-ups" (p. 10, DJEI, 2014b)

Finally, in 2015, DJEI (2015b) published *Enterprise 2025: Ireland's National Enterprise Policy 2015-2025.* While previously mentioned policy documents had identified individual roles for different government departments, this strategy recognised the need for a holistic, 'whole-of-government' approach to developing an enterprise ecosystem. The broad themes of the strategy were similar to those themes contained in *Making it Happen: Growing Enterprise for Ireland* (Forfás, 2010) with an emphasis on competitiveness, export development, skills development and access to finance. The most relevant aspect of this policy document to this thesis was reference to support to have been successful and expressed the government's intention to continue

with these interventions for the lifetime of the strategy. This perception was based on evaluations carried out by the government which demonstrated that such financial interventions had resulted in higher growth of supported enterprises relative to unsupported enterprises and that such interventions had been successful in achieving previous policy goals. Furthermore, the strategy also identified the requirement for ongoing evaluation:

"The development of enterprise supports and policies over the coming decade in Ireland should continue to be informed by strong evidence, informed by robust and independent evaluations." (p. 233, DJEI, 2015b)

#### 3.6 EU Centric Policies and European Policy Convergence

In addition to developing policies at national level, Irish policy has been subject to both restrictions and enhancement at EU level. In terms of restrictions, there have been limitations placed on the intensity of assistance given to enterprises. The restrictions are contained within risk capital guidelines (European Commission, 2006) and State Aid Rules (European Commission, 2009) and contain ceilings in terms of the amount and intensity of aid that can be given, without EU Commission approval. These guidelines vary depending on the type of aid being given, be it in relation to R&D, environmental protection or directed toward disadvantaged individuals. There is also a regional element which provides for firms or entrepreneurs located in disadvantaged regions qualifying for greater intensity of assistance.

In terms of enhancement, there are pan-European policies aimed at helping all EU member states to develop coherent entrepreneurship and SME policies. These are primarily found in the *Small Business Act for Europe* (2008). The act sets out a series of ten principles which the EU Commission was to participate in and which member states were "invited" to develop policies around. The ten principles are outlined as follows:

1. Create an environment in which entrepreneurs and family businesses can thrive and entrepreneurship is rewarded

- 2. Ensure that honest entrepreneurs who have faced bankruptcy quickly get a second chance
- 3. Design rules according to the "Think Small First" principle
- 4. Make public administrations responsive to SMEs' needs
- Adapt public policy tools to SME needs: facilitate SMEs' participation in public procurement and better use State Aid possibilities for SMEs
- 6. Facilitate SMEs' access to finance and develop a legal and business environment supportive to timely payments in commercial transactions
- 7. Help SMEs to benefit more from the opportunities offered by the Single Market
- 8. Promote the upgrading of skills in SMEs and all forms of innovation
- 9. Enable SMEs to turn environmental challenges into opportunities
- 10. Encourage and support SMEs to benefit from the growth of markets

In the Irish context many of the principles can be seen, particularly in the publication of *Making it Happen: Growing Enterprise for Ireland* (Forfás, 2010) where there is an emphasis on creating a supportive environment for entrepreneurship, access to public procurement opportunities for SMEs, reducing the severity of Irish bankruptcy legislation, SME engagement in export markets and skills development for SMEs. These themes have been continued in the Action Plan for Jobs (2012 to 2015), the *National Policy Statement on Entrepreneurship in Ireland 2014* and *Enterprise 2025*.

One of the key concerns of EU SME policy is access to finance and a number of initiatives have been developed in this regard. From 2007 to 2013 the Competitiveness and Innovation Framework Programme provided over  $\in 1$  billion in funding to be disseminated to SMEs through two facilities. The first was the SME Guarantee Facility which provided funding to banking institutions and guarantee schemes for loans to SMEs. As of 2015, over 370,000 SMEs across the EU were provided funding through the scheme. The second facility was The High Growth and Innovative SME Facility which provided funding through Venture Capital Schemes, in which 467 enterprises were financed during the same period (European Commission, 2015a). In both cases, the funds were used as a catalyst to induce investment from banks and financiers and did not involve direct payments from government to SMEs. Such an indirect approach is similar to that mentioned in the Irish policy document the *National Policy Statement* 

on Entrepreneurship in Ireland 2014 (DJEI, 2014b), outlined in Section 3.5. The Competitiveness and Innovation Framework Programme has been replaced by the Competitiveness of Enterprises and SMEs (COSME) which is in place to implement the objectives of the Small Business Act. It employs a similar form of improving access to SMEs, through channelling funds through financial intermediaries. COSME also includes measures to improve access to markets (for example funding the Enterprise Europe Network), actions to improve the operating environment for SMEs and encourages entrepreneurship (European Commission, 2015b).

Beyond the Small Business Act, there are a range of other policies which concern SMEs, the most notable being Horizon 2020, the research and innovation programme of the EU's Europe 2020 strategy. While there are a considerable number of measures in both Europe 2020 and Horizon 2020 which concern SMEs, there are some specific measures which are most pertinent to this thesis. For example, included within Horizon 2020 is the SME instrument, which aims to address the shortfall of finance to high potential, high risk innovative projects of SMEs (European Commission, 2016b).

Another core element of EU involvement is the dissemination of "best practice" policies so that member states can learn from successes of others and implement according to their own country specific characteristics. This represents an element of convergence in EU policies toward entrepreneurship and SMEs.

# 3.7 Irish State interventions in Enterprise

#### 3.7.1 Cost of Intervention in Ireland

The cost of implementing the policies outlined in this chapter are significant and despite increased constraints on the exchequer, public funds directed to supporting enterprises continue to account for a large proportion of public spending. According to projections for Government spending, more than  $\notin 2.3$  billion will be spent on enterprise between 2012 and 2016, as exhibited in Table 3.3. This represents 13.7% of total capital

spending, and is the main channel for funding of assistance for the enterprise sector (Department of Public Expenditure and Reform, 2011).

	2012 (€m)	2013 (€m)	2014 (€m)	2015 (€m)	2016 (€m)	Total 2012-16 (€m)	Change betwee n 2012- 16 (%)
Enterprise Capital Expenditure	514	458	457	454	451	2,334	-12.3
Total Capital Expenditure	3,935	3,373	3,253	3,253	3,253	17,067	-17.3
Enterprise as % of Total	13.1%	13.6%	14.0%	14.0%	13.9%	13.7%	

Table 3.3: Planned capital expenditure on enterprise support

Source: Infrastructure and Capital Investment 2012-2016: Medium-Term Exchequer Framework (Department of Public Expenditure and Reform, 2011)

In addition to this, further exchequer funding is directed toward enterprise through current expenditure. Current expenditure on enterprise is set to fall from  $\notin$ 369 to  $\notin$ 344 million between 2012-2014 (Department of Finance, 2010). This represents 0.7% of total current expenditure which although accounting for a relatively small proportion of the budget, will remain consistent in the proportion it is allocated, while other areas of public expenditure will be subject to greater proportionate cuts.

It is important to note that the above budget is split between both foreign and domestic enterprise, and that there is a lack of transparency as to precisely how much is directed toward SMEs and entrepreneurship. Much of the difficulty in segregating the expenditure on Irish SMEs and entrepreneurship is due to the involvement of multiple government departments. For example, enterprises receive support through other departments and agencies, such as Bord Bia (Food Board), Bord Iascaigh Mhara (Fisheries Board), Teagasc (Agriculture Policy Body) and Bord Scannán na hÉireann (Film Board) (Department of Finance, 2009). Ireland is not unique in this respect. For example, Dennis (2005) stated that there was a lack of information about exactly how much public funding was directed toward assisting entrepreneurs in the US, with only the budget of the Small Business Administration being available even though support was made available through other sources. Storey and Greene (2010) concurred with this noting that the UK was one of the few countries to fully disclose the entirety of enterprise expenditure by calculating such expenditure across all government departments.

#### 3.7.2 Enterprise Ireland and CEBs

Financial supports are the most costly element of expenditure on enterprise, costing an average of  $\notin$ 379.9 million per annum. Approximately 53% of this financial support was allocated through the two main agencies responsible for supporting indigenous enterprise; Enterprise Ireland and the City and County Enterprise Boards (DJEI, 2015c).

Table 3.4 Expenditure on Financial Support by Enterprise Ireland and CEBs, 2008 to 2014 ('000s)

	2008	2009	2010	2011	2012	2013	2014
EI Financial Support to Industry	220,153	249,786	294,816	194,032	186,420	177,813	186,918
of which CEBs	33,586	32,943	31,828	32,720	30,210	29,495	4,595
of which Local Enterprise Offices	N/A	N/A	N/A	N/A	N/A	N/A	31,161

Source: Enterprise Ireland (2008; 2009; 2010; 2011; 2012; 2013; 2014)

Enterprise Ireland (EI) is the larger of the two organisations. It was established in 1998 and has a national remit, operating through a network of regional offices. In 2011 it spent approximately  $\notin 194m^{9}$  in financial assistance to indigenous enterprises, as exhibited in Table 3.4. This organisation will only support enterprises in key sectors within manufacturing and internationally traded services. EI caters to two main groups within these sectors. The first is High Potential Start-Ups (HPSUs). These enterprises are export focused start-ups. To be classified as HPSUs they must have sales targets of at least  $\notin 1m$  and a target of reaching at least 10 employees within 3 years of being supported. HPSUs are typically only issued financial support in the form of equity. The

<sup>&</sup>lt;sup>9</sup> While CEBs are autonomous, the expenditure on CEBs was administered by Enterprise Ireland and the figures for EI Financial Support to Industry include CEB expenditure.

second group is established SMEs. These are typically issued with grants for a range of activities such as capacity building (for example scaling grants) and capability building (such as research and development funding). EI also supports large indigenous enterprises (i.e. those which employ more than 250 people), which are outside of the remit of this study.

	Number of new High Potential Start- Up enterprises supported by Enterprise Ireland	No. of companies supported through Enterprise Ireland's Growth Fund <sup>10</sup>	Number of approvals under the Employment Subsidy Scheme	El sponsored Enterprise Platform Programme participants
2009	73	67	455	N/A
2008	71	84	N/A	N/A
2007	70	157	N/A	103

Source: Department of Jobs, Employment and Innovation (2008, 2009 and 2010)

The exact number of enterprises supported by Enterprise Ireland in a given year is not provided in their annual reports. Indicators were provided by the Department of Enterprise, Trade and Innovation (now called the Department of Jobs, Enterprise and Innovation) in their "Annual Output Statements" but these ceased being published in 2010. These indicative figures are provided in Table 3.5. However, Enterprise Ireland support is wider reaching than suggested by these figures. An examination of the list of financial support payments made by Enterprise Ireland in 2010, reveals that approximately 2,500 enterprises received financial support under the "Grants to Industry" category of support (Enterprise Ireland, 2011). However, more precise details are unpublished and unavailable. Regardless, these figures indicate that a relatively large number of enterprises are support by EI, given the population of enterprises which operate in sectors eligible for support (as presented in section 2.3.2 in Chapter 2).

<sup>&</sup>lt;sup>10</sup> In addition to companies supported by the Growth Fund, this figure includes companies supported by the Productivity Improvement Fund for 2007.

Within their annual reports, Enterprise Ireland provides "cost per job" measures. These figures are calculated by dividing the value of support given, by the jobs sustained by client enterprises over a seven year period. These figures are reported in Figure 3.2. As this figure demonstrates, each job sustained by EI client enterprises for the period 2005-11 cost an average of €12,315 in government expenditure.



Fig 3.2: Expenditure on enterprise supports per job, 2008 to 2014

The City and County Enterprise Boards (CEBs) were established in 1993 and had a network of 35 offices across the country. While all of these offices operated under the same policy guidelines and framework, the offices were independent of one another and only had jurisdiction for their local area. Each office consisted of three to four full time staff. Similar to EI, they targeted support at enterprises in manufacturing and internationally traded services. However, the CEBs were more flexible and would support enterprises which fall outside of this category. The CEB remit was to only support micro enterprises (those enterprises which had fewer than 10 employees), with grants and equity (Fitzpatrick Associates, 2003).

Source: Enterprise Ireland (2014)

	Number of enterprises supported by the CEBs	Attendees at CEB sponsored training events	Number of students engaging in enterprise education by CEBs
2009	1,120	25,918	14,940
2008	959	21,912	10,500
2007	945	21,000	11,500

Table 3.6: Number of enterprises and people supported by CEBs

Source: Department of Jobs, Employment and Innovation (2008, 2009 and 2010)

In 2011, the CEBs had a budget in excess of  $\notin 32.7$  million, as shown in Table 3.4. Approximately  $\notin 13,000$  of this was spent on operating costs per annum, while the remainder was distributed in the form of enterprise supports (Forfás, 2014).

Similar to EI, figures for the numbers of CEB clients was unavailable after 2009. As displayed in Table 3.6, CEBs provided support for approximately 1,120 enterprises in 2009, representing an increase over the previous two years in the number of enterprises supported. Furthermore, they hosted nearly 26,000 people at training events. This represents a significant amount of resources used to support SMEs by CEBs. However, these figures only represent a small proportion of the total population of enterprises and entrepreneurs when compared to numbers shown earlier in Figure 2.3, Chapter 2.

Since 2014, the Local Enterprise Offices (LEOs) have been established and have effectively replaced the CEBs. The budget for the LEOs in 2014 was broadly similar to that of the CEBs. Furthermore the LEOs offer similar types of financial supports to those that were issued by the CEBs.

# 3.8 Summary

This chapter has reviewed Irish enterprise policies which have existed since the foundation of the State, with a particular emphasis on developments since the Telesis Report (1982). However, enterprise policy only became focused on SMEs since the early 1990s with the publication of the Culliton report and the subsequent foundation of

the City and County Enterprise Boards. Since then, policies have built on the core themes of the Culliton Report (1992) addressing areas such as export development, skills development, research and development, innovation and productivity, and have become more holistic, encompassing a wider array of policy issues which impact on SME development, and ultimately affect job creation. However, the consistent theme underpinning these policy areas has been developing access for finance for SMEs, with a particular emphasis on this since the economic downturn in 2008.

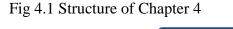
While the same policy tools (i.e. financial supports such as grants) have been used since the 1980s, the manner in which they have been used has evolved from solely covering costs of enterprise development to one of acting as a catalyst to induce private sector investment. Regardless, these supports remain the same, expenditure on these supports remains high and these supports are likely to be used for the foreseeable future. Thus evaluation of how effective these tools have been in achieving policy goals is required. Indeed, evaluation has been cited in policy documents as crucial for the development of future policy.

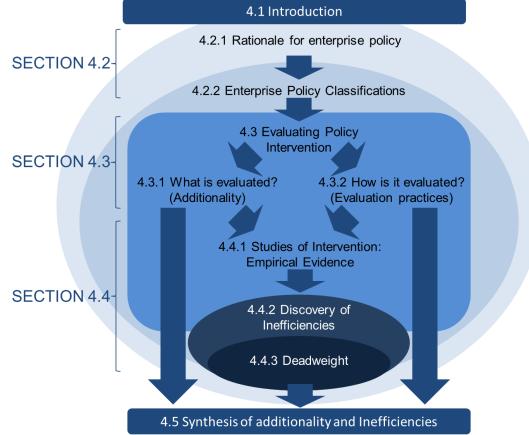
The next chapter of this thesis examines the literature surrounding enterprise policy, enterprise policy evaluation practices, and evaluations of policies that have been carried out, in order to discover potential benefits and dysfunctions of policy and also to formulate how best to evaluate Irish policy.

Chapter 4 - Theoretical Framework and Empirical Evidence

# **4.1 Introduction**

The previous chapters described the features of SMEs and entrepreneurship in Ireland, together with the key Irish policies employed to address the challenges that Irish SMEs face. The purpose of this chapter is to review the theoretical aspects of SME policy, which underpin this research. The structure of this chapter is illustrated in Figure 4.1 and described below.





Source: Developed by the author

The first section of this chapter examines the theoretical rationale as to why governments intervene in the SME sector and entrepreneurship. It also documents the different types of SME and entrepreneurship policies, and interventions that are employed by governments to support entrepreneurship and SMEs.

This second section outlines the evaluation of enterprise support schemes which emerge from enterprise policy. This section commences with a discussion of what measures are sought in evaluation; namely additionality. This is followed by an exploration of the evaluation practices which can be employed to measure additionality, in order to gauge the success or failure of enterprise support schemes.

The final section of this chapter presents the empirical evidence from existing research to date of enterprise support schemes in Ireland and overseas. It commences with a discussion of evaluations which have measured the impact of enterprise assistance schemes. Secondly, it examines inefficiencies which have been discovered during previous evaluations. Finally, it discusses previous evaluations which have focused on the most prolific inefficiency associated with enterprise assistance schemes; deadweight.

This chapter concludes by synthesising the core concepts discussed in this chapter, from which a theoretical framework has been devised.

#### 4.2 Enterprise Policy

#### 4.2.1 Market Failure and Rationale for Enterprise Policy

Jansen and Havnes (2002) outlined that the principle rationale for supporting enterprise is due to market forces not acting in an efficient way for the creation of new business. This concept has its roots in the neo-classical economic school of thought, and is referred to as market failure. At its broadest level market failure can be defined as *'the inability of market institutions to sustain desirable activity or eliminate undesirable activity'* (Hirschey, 2003, p. 520). Potter (2005) described market failure as one of the most influential frameworks for justifying SME intervention by government, rather than allowing markets to act freely. The market failures that impact entrepreneurial activity are much more specific. Audretsch, Grilo and Thurik (2007) outlined the types of market failure most pertinent to entrepreneurship. The first and most commonly cited by both practitioners and academics is the availability of finance. Causal factors of market failure, such as imperfect information are issues that have been outlined as key inhibitors to raising finance, particularly in the case of young and small firms (Berger and Udell, 1998; Cassar, 2004). Similarly, Potter (2005) stated that imperfect information impedes the judgement of financiers as to which enterprises they should invest in. He further stated that there are significant challenges in the supply of equity and debt finance for certain categories of entrepreneurs. Hart and Lenihan (2006) described such scenarios as "incomplete markets" and can result in the failure of the market to supply finance to viable enterprises. As such, they stated that one of the key objectives of industrial policy in Ireland and other jurisdictions is to address this type of market failure through intervening in the supply of finance. However, while this thesis primarily emphasises market failure in terms of failure of the market to provide finance to SMEs, there are other relevant market failures which occur frequently in the literature, which are described as follows.

The second type of market failure is due to the presence of externalities, which Audretsch et al. (2007) divided into three categories. The first externality is network externalities which refer to the increased value to a firm or individual being in close proximity to other entrepreneurial activity and thus having potential to benefit from technological and knowledge spillovers. The next type of externality is that of knowledge whereby governments intervene in order to protect intellectual property rights. The third type refers to learning, whereby activities of failed firms may be useful in the formation of new firms or projects, with no compensation for the former. With developed economies focused on knowledge based activities, such failures can prove problematic and can lead to a sub-optimal, or dis-equilibrium in the level of entrepreneurship and an overall suboptimal level of welfare for society. Such arguments make a strong case for policy influencing financial markets, clustering, R&D and skills areas (Autredsch et al., 2007).

However, Stiglitz (1989) stated that though there may be a role for government intervention in correcting market failures, governments are, in reality, exposed to the same issues that the private sector is, in terms of information asymmetry. Furthermore, despite market failure being cited as the primary rationale for government intervention in the SME sector (OECD, 2006), there is some debate as to how core this is. As Storey (1994) pointed out, very few schemes (the exception being tools such as the Loan

Guarantee Scheme in the UK for example) strictly address market failure (in financial terms), and so this cannot be regarded as the key justification in supporting SMEs. Indeed Storey (2004) pointed out that interventions in the SME sector often target job creation rather than targeting improvement in the supply of finance. However, it is also difficult to justify intervention targeting job creation, where such interventions lead to the creation of jobs in small firms at the sacrifice of jobs in large firms. This is where additionality (the additional activity as a result of intervention) must be sought, a concept which will be discussed in Section 4.3 of this chapter.

In addition, the use of market failure as a justification for government intervention has limited explanatory power. For example, Stiglitz (2002) noted that market failure is such a wide ranging phenomenon and so provides governments with little guidance on what action to take. Lenihan (2011) further argued that market failure has limited explanatory power in the justification of the "new" enterprise policy approach. She stated that this new approach moved away from a traditional view of the firm in isolation, and moved to a more holistic approach involving everything from direct, practical assistance to the firm, to examining broader fiscal and regulatory policy. This approach is focused around R&D, innovation and education (Lenihan, 2011). This policy view holds many similarities to the evolutionary economic perspective which is described as follows. Policy Research in Engineering, Science and Technology (PREST, 2002) stated that under the evolutionary framework, there are no failures as no optimum (as under the neo-classical) is aimed at. Instead the evolutionary view shows that there are dysfunctions and traps, which lead to a dilemma or trade-off between one economic trajectory and another. As well as presenting this new justification, the evolutionary view also sets out new conditions under which governments can decide on policy. Witt (2003) stated that policy makers have the same bounded rationality as those in other parts of society. This constrained information gathering capacity influences their ability to make correct policy decisions. However Witt (2003) presented a similar view of the evolutionary argument, as Stiglitz (2002) did of the market failure argument. Witt (2003) proposed that this view does not provide policy makers with instruments for intervention, but rather provides a framework for policy guidance. What is clear is that both frameworks provide justification for government intervention in the economy, and within the SME sector. Furthermore, PREST (2002) highlighted that though both views provide differing justifications for intervention, the rationale for intervention can be addressed by the same tools for both frameworks.

#### 4.2.2 Enterprise Policy Classifications

Audretsch et al. (2007) argued that academia and government are ill-equipped to understand the role of policy in entrepreneurship. This is because the field of economics has been primarily ignorant of entrepreneurship while the field of management, though concerned with entrepreneurship typically ignores the economic impact of this. It is this disconnect which creates challenges in forming a coherent set of entrepreneurship policies. However, the area of policy has been examined through a number of frameworks which provide insight into where specific types of policies impact on particular aspects of SMEs, entrepreneurship and wider society. This section reviews these frameworks highlighting country specific examples of policies and how they fit within these frameworks.

As highlighted in Chapter 2, defining and measuring entrepreneurship is a difficult task and hence multiple definitions exist. This introduces many different metrics which can be examined. This thesis has so far examined both dynamic and static entrepreneurship in its measurement of activity, and summarised this as enterprise activity. Similar issues arise when examining policy. Broadly speaking, policies concerning these areas can be looked at as enterprise policies. As with the measurement of enterprise statistics, enterprise policies can be divided between entrepreneurship policies and SME policies. Such a distinction has been provided by Stevenson and Lundström (2007) and follows the entrepreneurship and SME lifecycle and is exhibited in Figure 4.2.

Within this analysis of enterprise policies it is clear that neither of these are mutually exclusive as they overlap in particular phases and influence each other. Audretsch, Grilo and Thurik (2007) argued that small business policy typically involves specific government agencies employed to promote the sector, where entrepreneurship policy is much more pervasive, involving all aspects of policy and all areas of the economy.

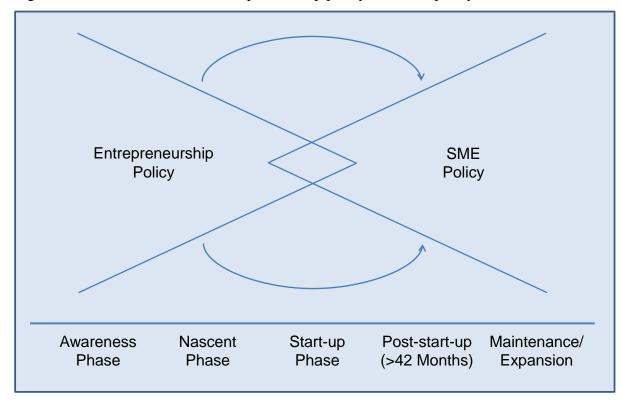


Fig 4.2: The Interface between entrepreneurship policy and SME policy

Source: Stevenson and Lundström (2007)

Previously, Dennis (2005) outlined three broad types of entrepreneurship policy. The first is SME policy which he described as a series of assistance programmes providing subsidies to both entrepreneurs and "lifestyle" business owners. The second is sector focused programmes, targeting business sectors which are regarded by government as being of particular strategic or economic importance. Dennis (2005) equated this to the idea of "picking winners", a concept outlined later in this literature review. In such a policy, target sectors are provided with assistance such as subsidies or protection from competition. The final strand of entrepreneurship policy is focused on the individual rather than firm level, though they may use the same types of interventions that are used for supporting small business. Dennis (2005) further explained that none of these account for the US experience of entrepreneurship; the context which was the subject of his paper. In fact he stated that the USA does not have small business policies or entrepreneurship policies, with exception to fragmented, individual small business schemes in individual states. Storey and Green (2010) conceded that US intervention is on a smaller scale than European countries, but argue that the US has had formal

enterprise policies in place for far longer than other developed countries. However, Dennis (2005) argued that instead of enterprise policy, US policy has more of a macro focus which addresses the environment for the wider business community to operate in, through areas such as effective competition policy. In an Irish context, based on the review of policy in Chapter 3 of this thesis, it is clear that enterprise policy prior to 2014 has had a much greater emphasis on SMEs rather than entrepreneurship per se.

Stevenson and Lundstrom (2001) conducted a review of entrepreneurship and SME policy across ten countries, including Australia, Canada, Finland, Republic of Ireland, Netherlands, Spain, Sweden, Taiwan, United Kingdom and United States. They found elements of both SME and entrepreneurship policies in all regions, and that generally entrepreneurship policy had either emerged from or developed later than SME policy. Based on their findings they developed a series of four typologies to describe the various approaches to entrepreneurship policies, which are outlined as follows. They do note however, that countries rarely fall exclusively within one of these typologies, and instead often combine elements of each.

SME Policy Extension (i) involves the stimulation of entrepreneurship. It is bolted on to SME policies and often poorly resourced. Typically these policies fail to address fundamental issues such as regulatory barriers to entry, entrepreneurship education and promotion of an entrepreneurship culture. Niche Entrepreneurship Policies (ii) are policies focused at niche or highly targeted segments of the population. There are two types of niche policies. The first typically targets segments of society which are regarded as being under-represented in the business community, such as women entrepreneurs, ethnic minorities and young people. Stevenson and Lundstrom (2001) cited promotion of Aboriginal entrepreneurship in Australia or minority business ownership in the US as prime examples of these. Outside of their study, examples can be seen at EU level where, for example, a core pillar of policy is to promote entrepreneurship among women. A second type of niche entrepreneurship policy is promoting entrepreneurship among those with the highest potential. Stevenson and Lundstrom (2001) stated that Ireland was one of the most "aggressive" examples of this citing its HPSU programme (as described in Chapter 3). They also noted that Taiwan, the Netherlands and Australia also pursued this approach through their policies. More recently, Mason and Brown (2013) stated that relatively few countries target high growth firms, or 'gazelles', despite there being a growing consensus that such enterprises make a disproportionately high contribution to economic growth. They described countries such as Scotland, Finland and the Netherlands as being early adopters of schemes to target these types of enterprises. Countries such as Australia, Hungary and Italy adopted such policies later and thus were less developed. Stevenson and Lundstrom (2001) stated that new firm creation policies (iii) are those which focus on the business creation process, reducing administrative burdens to establishing businesses and creating one-stop-shops for entrepreneurs delivering advisory services and information. Spain is highlighted as an example of this. The final typology is holistic entrepreneurship policy (iv). This is a wide ranging set of policies encompassing a significant number of policy objectives. Such examples were found in the UK, Netherlands and Finland (Stevenson and Lundstrom, 2001).

Concluding their typologies, Stevenson and Lundstrom (2001) made two interesting points. Firstly, government's policies reflect its priorities. For example, in Spain there were high instances of self-employment but few were formalising their businesses and so were not in a position to grow, hence the requirement for new firm creation policies. In Ireland, the emphasis was moving industry up the value chain, hence the adoption of technology/high potential niche entrepreneurship policy, while the Netherlands had a relatively low level of entrepreneurship and so required a more holistic approach. The second point is that those countries with established SME policies were more likely to adopt an add-on approach (such as the US or Taiwan) while those countries with a later introduction to entrepreneurship were more likely to adopt a holistic approach. The author believes that this latter statement does not necessarily reflect the Irish situation. For example the UK developed policies targeting entrepreneurship and SMEs before Ireland (based on the timeline of UK policy set out in Storey and Greene, 2010) yet according to Stevenson and Lundstrom's (2001) analysis, the UK has a more holistic policy approach. However, based on earlier reflections on the evolution of Irish enterprise policy in this thesis, it is clear that historical policies do have an impact on current policy decisions.

Netherlands based researchers, Verheul, Wennekers, Audretsch and Thurik (2001), developed classifications of government policy towards entrepreneurship based on groupings of the determinants of entrepreneurship. These are divided into five categories or channels and are outlined in Table 4.1.

Classification	Factors influenced	Description		
G1	Demand side	These policy measures influence the type and		
		number of entrepreneurial opportunities		
		available		
G2	Supply side	These policy measures influence the type and		
		number of potential entrepreneurs in a		
		population		
G3	Availability of resources,	These policy measures influence the availability		
	skills and knowledge of	of inputs such as finance, labour and		
	individuals	information		
G4	Preferences	These policy measures influence the attitudes		
		and values attached to entrepreneurship		
G5	Decision making process	These policy measures influence the risk-		
		reward profile of individuals		

Table 4.1: Classifications of Entrepreneurship Policy Interventions

Source: Based on Verheul et al. (2001)

G1 policies which influence the demand side typically involve indirect measures such as stimulating research and development or technology, income policy and direct measures such as introducing competition policy. G2 is aimed at increasing the supply of entrepreneurs through areas such as immigration, regional development policy and policies influencing family composition. G3 policies are broadly classified as input related policies. These involve influencing the availability of resources, skills and knowledge for the entrepreneur. Measures used to realise these policies include indirect approaches, such as the developing financial markets, and direct approaches, such as providing grants, subsidies and training to entrepreneurs. G4 policies try to influence the attitudes and culture toward entrepreneurship. Education policies and use of media is particularly important in achieving these aims. Finally, G5 policies influence the decision making process of potential entrepreneurs. These are typically macro-economic policies which balance the risk and reward of entrepreneurship, but affect all economic actors. They typically involve taxation policies, social welfare, labour market policies and bankruptcy policy (Veheul et al, 2001). Using this framework, O'Gorman and Cooney (2007) explained that Irish policy has typically been involved in G2 and G3 policy categories, with more recent involvement in G4. However, Irish enterprise policies (as those discussed in Chapter 3) contain elements of all five categories. For example G1 policies can be found throughout policy documents since the Culliton Report (1992) where there has been an emphasis on developing export opportunities for SMEs and more recently, in the Action Plan for Jobs 2012 (DJEI, 2012) which contained actions for developing SMEs' online presence. The National Policy Statement on Entrepreneurship in Ireland 2014 (DJEI, 2014b) is concerned with developing the supply of entrepreneurs (G2 type policies) and attitudes toward entrepreneurship (G4 type policies). Examples of G5 type policies can be found in *Making it Happen:* Growing Enterprise for Ireland (Forfás, 2010) and the subsequent Action Plan for Jobs policies where there has been proposed improvements to bankruptcy legislation to facilitate entrepreneurship. However, of most concern to this thesis are G3 type policies, because this thesis is primarily concerned with the evaluation of financial support provided to enterprises. Such supports are primarily in place to influence the supply of inputs such as finance and labour, and remain the central component of Irish policy.

The framework developed by Verheul et al. (2001) was revisited by Audretsch et al. (2007) who added further dimensions, which have been included in Table 4.2. They introduced the concept of G6 type policies which stimulate innovation or R&D. These can include R&D subsidies to stimulate entrepreneurs to innovate, or income policies to increase demand for technology from wider society. This policy type became particularly apparent in Ireland from the Enterprise Strategy Group (2004) report which placed a much greater emphasis on innovation and R&D and this theme has been continued through policy documents since.

Classification	Factors influenced	Description			
G1	Demand side	These policy measures influence the type and number of entrepreneurial opportunities available			
G2	Supply side	These policy measures influence the type and number of potential entrepreneurs in a population			
G3	Availability of resources, skills and knowledge of individuals	These policy measures influence the availability of inputs such as finance, labour and information			
G4	Preferences	These policy measures influence the attitudes and values attached to entrepreneurship			
G5	Decision making process	These policy measures influence the risk- reward profile of individuals			
G6	R&D and Innovation	These policy measures influence the level of R&D and innovation conducted by enterpreneurs			
G7	Intervention	The willingness of government to intervene			

 Table 4.2: Revised Classifications of Entrepreneurship Policy Interventions

Source: Based on Verheul et al. (2001) and Audretsch et al. (2007)

The second category of policies they introduced was G7, which represents the willingness of government to intervene. The government will be influenced by whether the rate of entrepreneurship is thought to be at equilibrium. In the Irish context government inclination toward intervention can be seen in policy documents since the 1980s. Telesis (1982) and in particular Culliton (1992) have reflected the government desire for greater indigenous entrepreneurial activity, and this has been continued in all enterprise policy documents since then, up to *Enterprise 2025: Ireland's National Enterprise Policy 2015-2025* (DJEI, 2015b).

As mentioned, Dennis (2005) noted that the USA does not have a specific entrepreneurship policy and so such a framework may not capture the essence of their approach to entrepreneurship. Rather than using such a framework he sets out a series of typologies to outline USA's relative policy stance and its impact on entrepreneurship.

These include (i) Institutions and Culture, (ii) Entrepreneurship and Competition, (iii) Impediments and Assistance, (iv) Small Business and Entrepreneurship, and (v) Mixed Objectives and Policy Means. Of particular relevance to this study (and shown in Figure 4.3) is the Impediments and Assistance typology as it focuses exclusively on policy directed toward small business and entrepreneurship.

Fig 4.3: Impediments and Assistance Typology

			Impediments		
			High	Low	
t.	nce	High	Compensating	Nurturing	
Direct	Assistance	Low	Limiting	Competing	

Source: Dennis (p. 23, 2005)

In Dennis's (2005) paper he outlined that US policy is focused on low impediments to business start-up and growth, but is also characterised by low levels of direct assistance, both in relative terms to other nations. This places US policy in the category of "competing". For example, he outlined that in 2004 the principle channel for small business and entrepreneurial support was the Small Business Administration (SBA) which issued 80,000 loans. This compares to eight million loans issued by the private banking system. Though this is not inclusive of all supports or of all private finance, it is indicative of the low levels of support offered. Storey and Greene (2010) are somewhat critical of this categorisation, and earlier comments of Dennis (2005) following their comparison of UK and US enterprise policy. They stated that due to the lack of clarity on exactly how much is spent on enterprise support, the emphasis of the US system on hard support and the lack of evaluation of US enterprise support, it is overly simplistic and premature to assume that US policy is competing.

However, Storey and Greene (2010) cited an earlier publication of Dennis (2004) and provided further examples of countries and regions which fall into each of the four categories proposed in the framework. As above, the US policy predominantly falls into

the competing category with exceptions of individual programmes for minority support and support for specific sectors such as technology based businesses. These latter exceptions fall under the category of nurturing as such policies offer high levels of direct assistance and focus on lowering impediments. Other examples of nurturing include New Zealand and Canada. By comparison EU countries primarily fall under the category of compensating. Impediments are high due to the focus of policy on consumer protection while business interests are compensated by high levels of assistance. Limiting policies are primarily found in developing countries such as African, South American and some Eastern European economies, where impediments are high but assistance is low.

In an Irish context McCarthy (2009) used this framework to analyse the individual components and recommendations of three core Irish policy documents; Telesis (1982) Culliton (1992) and O'Driscoll (2004). He found that of the relevant recommendations in the Telesis (1982) report, seven concerned lowering of impediments while four concerned direct assistance. By comparison, both Culliton (1992) and O'Driscoll (2004) had a considerably higher level of recommendations focused on direct assistance. It should be noted that McCarthy excluded some of the recommendations from his analysis (for example many of those concerning infrastructure development) as they did not match with the categories set out by Dennis (2005). Though this is a valuable framework for cross-county comparisons, McCarthy's (2009) analysis shows that it is not all encompassing of the facets of entrepreneurship policy and interventions. Overall, it can be stated that Irish policy, as a whole, falls under the "compensating" category, owing to high impediments and high levels of assistance.

In summary, this section has outlined how governments intervene in different contexts and the aspects of entrepreneurship and SMEs in which they intervene. However, such intervention requires evaluation in order to assess if it addresses the challenges that entrepreneurs and SMEs face. Furthermore, it needs to be evaluated to assess whether or not government objectives of intervention are being achieved. Finally, as mentioned in Chapter 3, intervention costs a significant amount of tax payers' money and so requires evaluation to determine if such funds could be better employed elsewhere. The next section outlines the aspects of intervention which need to be measured, namely the types of additionality. This is followed by an examination of how to evaluate such interventions.

### 4.3 Evaluating Intervention

Many authors have stated that because government intervention consumes significant amounts of exchequer funds, it merits evaluation (Wren and Storey, 2002; Henry, Hill and Leitch, 2003; Lenihan, Hart and Roper, 2005). As demonstrated in Chapter 3 of this thesis, this significant level of expenditure is true in the Irish context. Furthermore, such government intervention must be explored in order to determine if this expenditure could be put to better use elsewhere (Wren and Storey, 2002; Lenihan, Hart and Roper, 2005). However, ultimately evaluation must examine what additional impact intervention has had, over and above what would have happened if there were no intervention. This concept is referred to as additionality, which the next section explores in greater depth. Following this, the approaches for testing for additionality and the overall impact of support are outlined.

### 4.3.1 Additionality

Additionality is defined as the greater level of economic activity that exists in comparison to the level of activity that would exist in the absence of intervention (Lenihan, Hart and Roper, 2005). This concept captures the difference that state intervention makes and serves as justification for intervention (PREST, 2002). There are three distinct levels of additionality which must be outlined and explored. These are input, output and behavioural additionality (Georghiou, 2004), which are discussed in this section.

The first, input additionality, refers to the concept that by a government or state sponsored agency supporting a firm, that the firm is encouraged to further invest in the same targeted project (Heijs, 2003; Georghiou, 2004). Due, in part, to EU regulation of state assistance, it is required that grants or financial support can only make up a given percentage of the targeted project cost. This can be seen in practice in Ireland through examination of agencies such as the CEBs (City and County Enterprise Boards) and

Enterprise Ireland (EI). For example CEBs will finance up to 50% of the project value with capital grants and feasibility study grants, as stipulated by EU regulations (DETE, 2007). This automatically creates input additionality. However the question remains as to whether or not the government funding that is provided to an enterprise is simply substituting private investment (Clarysse, Wright and Mustar, 2009).

The second level, known as output additionality, refers to the degree to which output of a firm increases as a result of state intervention (Georghiou, 2004). This has been the focus, though not necessarily explicitly labelled as such, of the vast majority of evaluation studies as they attempt to capture the value of increased firm output that can be attributed to state input. As Georghiou (2004) commented however, it needs to be questioned what changes in the firm are regarded as outputs. For example, in the context of support for R&D projects, PREST (2002) proposed that output additionality may often be measured in terms of tangible outputs, and therefore overlook the intangible, informational outcomes. Furthermore, Clarysse et al. (2009) stated, in specific relation to R&D subsidies, that output can occur in varying forms such as firm growth, development of new products, patents, publications and both inter- and intrafirm spillovers. The differing types of output create problems for the researcher. For example, measuring output additionality may measure intermediate outputs such as patents or publications, but due to timing difficulties may fail to capture the full impact on growth of the firm. Furthermore, Clarysse et al. (2009) stated that the R&D process is rarely linear and evaluation of output additionality may fail to capture the wider implications of government intervention such as impact on other processes of the enterprise, outside of the supported project, or impact on the wider sector in which the supported firm participates.

The third type is behavioural additionality and refers to the change to behaviour within an enterprise as a result of support. This particular facet of additionality has received the least amount of attention by both academics and practitioners in terms of its evaluation. This is possibly because of its intangible nature and challenges in its measurability (Georghiou, 2004). PREST (2002) outlined that such additionality can occur during project inception. For example, the enterprise may have adopted a different time frame for a project had it not been supported, or changed another aspect of it. Behavioural additionality can also occur in the long run operations of the enterprise, after a supported project within the enterprise has been completed. Georghiou (2004) outlined that this can include facets such as incentivisation to grow and acquire new skills, interaction and networking with other firms and stakeholders, and the impact on overcoming firm lock-in failure, in relation to new technologies. Though Georghiou (2004) provided these aspects from the view of R&D and technological innovation, these can be applied to the broader aspects of support. Within more recent literature the concept of behavioural additionality has become more prominent (Clarysse et al, 2009) yet it has been highlighted as an area which requires significant further evaluation (Lenihan, 2011).

Through examination of the literature so far the reasons, or rationale, for intervention have been demonstrated through an examination of key economic and financial perspectives and theories. Following this, the types of outcomes of exercising intervention have been outlined, through examining additionality. The next section examines how these concepts should be measured and what approaches should be used for policy evaluation.

#### 4.3.2 Evaluating Government Intervention

The OECD (2004) outlined that there is a vast amount of theoretical perspectives concerning how to evaluate government intervention but in comparison relatively low levels of application of evaluation practices and gathering empirical evidence, internationally. Furthermore, much of the evaluation that has been completed has involved basic 'before and after' studies gauging reactions from satisfied clients after they have been issued with support. In other terms, studies may measure the output, but not necessarily the output additionality. With specific regard to the Irish perspective, Lenihan et al. (2005) held a similar view and stated that evaluation has been expressed as a key concern among policy makers and academics, but also expressed that few know how to implement it. It was further outlined that most existing evaluation to date has consisted of little more than ensuring transparency when spending public funds.

Furthermore, the OECD (2004) outlined three levels of policy evaluation; prospective, summative and formative. Prospective evaluation is the examination of the potential

impact of proposed schemes before they are put into place. These are used during the formation processes of schemes. Lenihan et al. (2005) referred to this as *ex ante* evaluation and though regarded in equal importance to other stages of evaluation is not applicable to this study as it is not studying new policy.

Both summative and formative approaches are retrospective in that they measure the impact after the inception of policies and programmes. Lenihan et al. (2005) classified such approaches as *ex post*. The OECD (2004) outlined a clear distinction between the two however. Summative evaluation examines the specific outcomes of policy post implementation. This can also be referred to as programme or impact evaluation. In contrast formative evaluation examines the reasons why the outcomes of policy have occurred. These approaches also contrast in their respective methodologies. Summative evaluation typically involves quantitative measures, where formative evaluation typically involves a qualitative approach. The OECD (2004) further outlined that where a specific issue or problem is thought to exist in policy implementation or effectiveness, qualitative techniques, such as interviews with policy makers and client companies, are the most appropriate form of discovery. However, Curran (2000) outlined that effective policy evaluation should involve both approaches in order to be comprehensive in its assessment. More recently, Hart and Roper (2005) supported this approach, and stated that qualitative measures enrich findings of econometric testing, particularly given the complexity of small business. Such approaches have also been suggested in practitioner documents. For example a framework for the evaluation of supports was developed on behalf of the European Commission by EIM (2004) through a review of methods to measure the effectiveness of state aid to SMEs. Within this framework it is suggested that both quantitative and qualitative techniques should be employed, particularly where an enterprise support scheme has multiple elements or measures (as is the case in current Irish enterprise support).

Earlier, in his Six Steps to Heaven framework, Storey (1998) presented more specific categorisations of evaluation which focus on what is measured rather than temporal aspects. This framework is summarised in Table 4.3. He distinguished between monitoring and evaluation. Steps 1 to 3 involve monitoring and typically include documenting activity and gathering participant perceptions. More specifically, Step 1 examines data such as numbers of enterprises supported and expenditure of schemes.

Work in the area is typically conducted by government, and in an Irish context can be seen in Chapter 3 of this study. Step 2 gathers perceptions of participants as to how well the assistance was delivered. As Storey (1998) states this rarely addresses if policy goals have been achieved. For example an entrepreneur or SME owner-manager may have believed support to be valuable if surveyed, but this does not prove that firm performance has improved.

Step 3 gauges if the recipient of the support believes that the support made a difference. Such monitoring exercises often ask what the recipient perceived may have happened in the absence of intervention. Such an approach is flawed in that it relies on memory of respondents and also may be influenced by their biases. Such an approach can be seen in studies which have been used to determine deadweight, such as Lenihan (1999) and Heijs (2002). Yet, Lenihan (1999) commented that she did not believe that memory was an issue due to the study taking place within 18 months of receipt of support. She also cited the possibility of a respondent effect, whereby interviewees would exaggerate or understate the impact of support due to concerns about the availability of future funding, but did not believe this to be an issue in her study.

Туре	Stage	Description
Monitoring         Step 1         Take up of schemes		Take up of schemes
	Recipients opinions	
	Step 3	Recipients views of the difference made by the assistance
<b>Evaluation</b> Step 4 Comparison of the performance of 'Assisted' with '		Comparison of the performance of 'Assisted' with 'Typical' firms
	Step 5	Comparison with 'Match' firms
	Step 6	Taking account of selection bias

Table 4.3: Storey's Six Steps to Heaven Framework

Source: Storey (p. 13, 1998)

Steps 4 to 6 in Table 4.3 are regarded by Storey (1998) as evaluation and introduce the concept of employing a control group in place of hypothetical counterfactual scenarios. Step 4 involves comparing assisted firms to typical unassisted firms. This may compare performance or survival rates of both groups. Such an approach was used by Bergstrom (2000) in his analysis of Swedish subsidies (this study is outlined in later sections of this review). However, as Storey (1998) points out, assisted firms may not be typical and therefore not comparable to the unassisted firms. In an Irish context this may have

relevance. As demonstrated in Chapter 3 of this thesis, large parts of assistance are directed to high potential enterprises which would be atypical to the overall enterprise base. Step 5 seeks to overcome this through matching. This may involve choosing a control group which displays similar characteristics such as ownership, geography, sector, age and size. Similar to Step 4, this seeks to gauge the difference between both groups, and attributes this difference to intervention, thus establishing additionality. Storey (1998) acknowledged that matching is a difficult process. This view is supported by the OECD (2004) and Lenihan et al. (2005).

Storey (1998) also stated that selection biases may interfere with the accuracy of such evaluation. There may be selection bias, whereby a firm may be selected for support due to its fit with policy, or self-selection, where the most highly motivated firms apply for support. Step 6 evaluation accounts for this. Again this is important in an Irish context as the nature of elements of Irish policy is to support enterprises with high potential thus automatically creating a selection bias on the part of support agencies.

Though Storey's framework is frequently cited, there are those that argue that it does not go far enough. For example, Lenihan (2011) highlighted that there is a need to take a more holistic view when analysing the impact of assistance, and gauge the impacts on the wider business sector and on society as a whole. Furthermore, though the literature provides guidelines as to how to monitor and evaluate policy, the application of these guidelines are scant, particularly given the range of interventions available across the world. The next section reviews some of the studies which have been carried out. Many of these fall under Storey's (1998) category of monitoring, rather than evaluation. However, these provide key insights into how interventions impact enterprises, and the factors which affect the degree of impact.

# 4.4 Empirical Evidence

# 4.4.1 Studies of Intervention

Though prior literature refers to a lack of evaluation, Storey and Potter (2007) highlighted that while many evaluations exist, using more sophisticated evaluation from Storey's (1998) framework is not the norm. In Storey and Potter's (2007) paper, they conducted an inventory of policy evaluations across a wide number of countries.

Lenihan (2011) tabulated these evaluations according to the findings of Storey and Potter (2007), as demonstrated in Table 4.4. Of the 42 evaluations, 16 employ control groups (falling within steps 4 to 6), while only seven are regarded as step 6.

Table 4.4: Categorisation of evaluations reviewed by Storey and Potter (2007) according to their sophistication

Type of Evaluation	Number of Evaluations
Step 1 Take up of schemes	2
Step 2 Recipients' opinions	9
Step 3 Recipients' views of difference made by assistance	8
Step 4 Comparison of performance of assisted firm with typical firms	2
Step 5 Comparison with match firms	7
Step 6 Taking account of selection bias	7
No score	6
Unclear score (between steps 3–5)	1
Total	42

Source: Lenihan (p. 326, 2011)

However, Storey and Potter (2007) stated that these less "sophisticated" evaluations do provide some interesting insights into the nature of policy. Empirical evidence from some of these types of studies are outlined in the remainder of this section.

A number of studies mirror step 1 and step 2 monitoring as outlined by Storey (1998). One such example was Boter and Lundstrom (2005) who examined support provided by four Swedish support agencies; Almi Business Partner, Swedish Trade Council, The National Labour Market Board and the County Administrative Board. This study gauged the uptake of support services offered by these bodies among 1,022 small (less than 50 employees) enterprises. They found that the uptake of support was lower among micro enterprises than it was among the larger enterprises within the sample. They also found that sector impacted on support. They stated that many of the supports had been developed with a focus on manufacturing firms and so uptake was higher among such firms, than for services enterprises. Furthermore, they found that region was significant in influencing uptake of support. Companies in peripheral areas had fewer options for support services from private actors, than those which were located in urban areas. This meant that companies in peripheral areas were more inclined to utilise public support.

Boter and Lundstrom (2005) found that utilisation of Swedish support services was relatively low. They related this to concepts posited by Curran (2000) which outlined that enterprises may be slow to use support due to the desire to maintain autonomy and control, and also due to the fact that supports are often standardised and do not fit a heterogeneous population of companies.

Studies akin to step 3 monitoring have also been carried out and have found that support has a limited impact on the survival of the firm. In their study of the Irish City and County Enterprise Boards (CEBs) and 222 micro-enterprises which received support between 1999 and 2002, Fitzpatrick and Associates (2003) found that assistance had little or no impact on survival rates. Hanley and O'Gorman (2004) concurred with this view and further added that there was also little evidence to suggest that support was essential to the setting up of the subjects' companies. Yet both Fitzpatrick Associates (2003) and Hanley and O'Gorman (2004) reported a significant and positive relationship between both employee and turnover growth and receipt of assistance.

Many other studies have found evidence to suggest that support influences growth, but that the effectiveness of support is dependent on features of the enterprise. For example Boocock, Loan-Clarke, Smith and Whittaker (1998) examined the UK based Training and Enterprise Councils. For this study they surveyed 551 recipients of training and interviewed 29 training providers and six Training and Education Council managers. They found that the support offered was less effective for smaller firms than it was for large. They attributed this to smaller firms having differing needs, in terms of assistance, than larger firms but that the inflexibility of support offered did not cater to this.

Later, Wren and Storey (2002) discovered a similar trend in their study of the 2,799 enterprises supported by the UK Enterprise Initiative. They found that firm size was a key determinant in the effectiveness of government assistance. They discovered that in this soft support initiative, which offered access to private sector consultants, smaller firms were much less likely to benefit, in terms of both survival and growth, in comparison to larger firms, from receipt of assistance. They offered two explanations for this. Firstly, smaller firms have little or no track record for consultants to base a full

and proper assessment on, in order to give advice about future strategies. Secondly, smaller firms may not have the resources to implement any advice given.

Another key determinant on the success of support is the intensity of assistance given. Wren and Storey (2002) found that in the above mentioned UK Enterprise Initiative, the positive impacts of assistance were greater with firms that spent more time with the consultant offered through the scheme. Similarly, Hart McGuinness, O'Reilly and Gudgin (2000), in their examination of Northern Irish support, found that the more intensive the package of assistance, the greater the impact on the assisted firms. Fitzpatrick Associates (2003) found such phenomenon present in the Irish example of CEB support also.

However, the amount of assistance provided to an enterprise may be enhanced by enterprises using assistance to leverage finance from the private sector. Hart and Lenihan (2006) stated that the receipt of assistance by an enterprise may result in externalities, which includes the potential to leverage external finance from the private sector. The mechanism by which this occurs is due to the receipt of government support acting as a signal to the private sector that the enterprise is of high potential. Söderbloma, Samuelssona, Wiklunda and Sandberg (2015) discovered a similar leveraging effect when studying Swedish enterprise supports. They examined a sample of 284 enterprises which had applied for financial support from the Swedish Governmental Agency for Innovation Systems (VINNOVA) VINN NU ('Win Now') programme between 2002 and 2008. The study evaluated 130 grant recipients and had a control group of 154 enterprises which had been rejected for support in the final stages of the application process. They found that the amount of support provided to enterprises was small and thus in itself had very little impact when solely regarded as a financial input. However, due to the fact that the supported enterprises had been approved for support by the agency, these enterprises were perceived as being more credible. The enterprises' approval for support thus provided a signalling effect to external investors and potential employees, allowing these enterprises to attract investors and highly skilled employees.

The impact of assistance is also subject to external factors such as economic conditions. Wren and Waterson (1991) explained that the degree of impact on the firm was subject to economic cycles and that the impact may be lower during an economic downturn. Furthermore it should be noted that schemes to provide assistance should be flexible to track economic conditions. This has been one of the arguments against CEB support in Ireland. Fitzpatrick Associates (2003) stated that an argument against CEB support is that the structure of CEBs and support mechanisms were developed at a stage of high unemployment and economic uncertainty and have not been adjusted with economic upturns.

However, not all studies have shown intervention to have a positive impact. Bergstrom (2000) examined 634 unsupported and 56 enterprises supported by Swedish public subsidies. Firms within the sample employed between 1 and 75 people. Similar to Fitzpatrick Associates (2003) and Hanley and O'Gorman (2004), Bergstrom (2000) found that subsidies granted to companies had little effect on survival rates. Furthermore, this study discovered that though subsidies do impact on short term growth, they reduce long term productivity. Bergstrom (2000) attributed this to subsidised firms misallocating funding and/or owner-managers focusing on subsidy seeking rather than productive activities. Furthermore, Wren and Waterson (1991) explained that assistance is not always aimed at boosting traditional growth indicators such as employment. For example, firm employment may decrease as a result of assistance if the assistance is aimed at modernising firms.

In summary, this section has documented that both enterprise and environmental characteristics cause variance in the impact of support. The extant literature has sought to further explain these variances in impact and account for potential underperformance of support programmes. The next section of the literature review explores factors which may reduce or mitigate the impact of support.

### 4.4.2 Inefficiencies of Government Intervention

Through an exploration of the literature a number of factors have been found which may mitigate for the impact of support. For the purposes of this study, these have been grouped under the term of 'inefficiencies'. These inefficiencies include 1) the presence of information asymmetries between the enterprise and the agency issuing the support, 2) rent seeking by the enterprise, 3) substitution of private finance by support, 4) a poor fit between support and the challenges that the enterprise faces 5) selection bias and 6) displacement. These are each discussed in this section.

The first of these inefficiencies was noted by Wren (2003) who stated that the presence of information asymmetries can occur during the support process where those issuing the support do not have access to the same information as the applicant for support. In such a case it is not possible for the issuer of support to ascertain the proof of need. Wren (2003) further stated that resources allocated in discovering the true extent of need of support for the applicant may mitigate for this. However, Swales (1997) stated that the costs of administration of support mechanisms are high. This means that the high cost of monitoring and evaluating applications for support, may in turn mitigate for savings made by eliminating incorrect issuance of support.

Where such a case occurs, the firm is able to extract an "information rent" (Wren, 2003). This leads on to the second type of inefficiency known as rent seeking. In an Irish context this was highlighted by Culliton (1992) in a review of the Irish support system. Within studies of enterprise assistance it has attracted little attention with the exception of Bergstrom's (2000) study, as alluded to in section 4.3. He proposed that short term increases in performance may have been due to owner managers spending time 'subsidy-seeking' (rent seeking) rather than concentrating on improving productivity.

A third type of inefficiency is substitution. This concept refers to a situation whereby private funds are substituted by government assistance. Wren (2001), citing Wren (1994) attributed this factor as one of the failures of UK Regional Policy. Similar to rent seeking, substitution has rarely been studied. However, in a study of German R&D assistance issued to 734 enterprises between 1994 and 2000, Czarnitzki and Licht (2006) found that there was no substitution of public funds with private funds.

A more prominently reported inefficiency is the fit between the type of assistance or policy and the challenges that enterprises face. Wren (2001) outlined that UK regional grants, which had the objective of increasing employment, were more ineffective when targeted at capital intensive companies, rather than labour intensive companies. Similarly, in Bergstrom's (2000) previous mentioned study, he found that firms which received capital subsidies were only likely to have a short term increase in productivity and that the more subsidies firms received, the more inefficient they became. Bergstrom (2000) found that the reason for this fall in efficiency was that there was a sub-optimal mix of inputs in terms of labour and capital as a result of receiving these subsidies. In a different vein, Curran (2000) noted that enterprise support programmes are frequently standardised and so the fit between enterprise requirements and the enterprise support instruments can be weak, and so this affects applicability, impact and even uptake of support. Similarly, Boter and Lundström (2005) stated that a major challenge for policy and support mechanisms was catering to a heterogeneous population, particularly for entrepreneur centric support. They found in a study of over 1,000 Swedish SMEs that uptake of publicly financed support systems was low as a result. Furthermore, they found that with a wide range of support systems across different schemes, that there was confusion among entrepreneurs as to which scheme was most applicable to them.

Earlier, Roper and Hewitt-Dundas (1998) conducted a study of 703 enterprises who received support from the Local Enterprise Development Unit (LEDU) in Northern Ireland and the Small Business Programme (operated by Forbairt, Shannon Development and Údarás na Gaeltachta) in the Republic of Ireland. They discovered that in both of these programmes, assisted firms were commonly less efficient and that productivity fell as a result of assistance due to the emphasis on increasing employment, some of which may be unnecessary. Hart et al. (2000) concurred with this and further stated that if assistance encourages or forces companies to employ additional staff, particularly for core activities, this may be disadvantageous to the firm. In such circumstances a firm may become overstaffed and inefficient, and consequently suffer when assistance ceases. Jenssen and Havnes (2002) explained in relation to Swedish entrepreneurship support that there was a poor uptake by high-tech companies, and that this may be explained by the failure or inability of support agencies to keep up with technological developments.

Selection bias (also referred to as picking winners or the selection effect) is the idea where a firm may be chosen for assistance, by government agencies, due to its high growth potential or characteristics that indicate it is likely to succeed. If the assisted firm has high growth potential or is likely to succeed without support, the assistance is essentially redundant or the impact is reduced (Freel, 1998; Roper and Hewitt-Dundas, 1998; Hart et al, 2000; Roper and Hart, 2005). Freel (1998) outlined that the concept of support schemes "picking winners" was a stated aim in UK policy in the early 1990s as supports moved from automatic assistance (where any enterprise would be supported) to a discretionary type of assistance (whereby support would be issued only to those enterprises selected by support agencies). However, Freel (1998) outlined that such a policy was implausible as there were too many factors which determined an enterprises success for an enterprise agency to be able to recognise "winners". PREST (2002) alluded to a similar phenomenon, though not in these explicit terms. They stated that governments may favour profitable projects to demonstrate success in their policy. Similarly, Sipikal, Pisár and Labudová (2013) referred to the concept as the "Good Choice Paradox" where governments (and their agents) will support the best projects, rather than those that need support most, in order to reflect positively on their efforts. Despite the long suspected presence of this issue there has been little or no evidence from studies that this phenomenon is significant in the Republic of Ireland (Roper and Hewitt-Dundas, 1998; Hart et al, 2000; Roper and Hart, 2005). Nevertheless, despite the lack of empirical evidence, O'Gorman and Cooney (2007) stated that selection bias is an inherent element of Irish enterprise support, particularly apparent through Enterprise Ireland's (EI) High Potential Start-Up scheme, presented in Section 3.7.2 of this thesis.

Displacement is also a widely recognised issue and refers to the phenomenon where the output of an assisted firm displaces that of an existing, unsupported firm, therefore reducing the overall gain for the economy as a result of intervention (Lenihan et al, 2005). Both Lenihan (1999) and Fitzpatrick Associates (2003) found evidence to support the presence of displacement from supported firms. However, Fitzpatrick Associates (2003) stated that agencies in Ireland such as CEBs attempt to minimise the effect of displacement by only supporting firms that are serving markets that are not already saturated or where there is already the presence of a significant number of firms serving the market. However the OECD (2004) argued that displacement may have positive effects on the economy where displacement ultimately leads to only the most efficient firms surviving.

In summary, there are a wide range of inefficiencies which have the potential to detract from the impact of support. However, there is a final inefficiency which has been more frequently studied and has been found to be more prolific than all others. This is known as deadweight and is discussed in the next section of this chapter.

#### 4.4.3 Deadweight

### 4.4.3a The Concept of Deadweight

The majority of enterprise assistance schemes, including those administered in Ireland are discretionary. In other words, funds are allocated or refused by the support agency based on the agency's perception of the firm's requirements and the most effective use of public funds. The issue with allocating public funds in such a discretionary way is that it requires state agencies to gather information on the support applicant and gauge the requirement and relevance of assistance to the applicant (Wren, 2003). The key challenge for agencies is that this is a difficult and costly exercise as it requires administrators of state support to identify additional and non-additional jobs in supported enterprises (Picard, 2001). Furthermore, there is a risk with discretionary assistance that enterprises may be rejected for assistance, where they actually do require it (Wren, 2003). Prior to this, Honohan (1998) outlined that overly complicated processes in selection may lose some intuitive appeal. Essentially it is one of the state agencies tasks to ensure that assistance is allocated where needed and in the quantities needed. This task is difficult given the presence of asymmetric information between the firm and the state agency (Wren, 2003). This is where deadweight arises. In an Irish context Forfás (2012) stated:

"It has been suggested that even if policies are planned carefully, deadweight spending is not completely avoidable because the government never has full information about a firm's actions in the absence of a subsidy." (p. 138)

Deadweight is the most prolifically reported inefficiency of government intervention, particularly with regard to enterprise support. Department for Business, Innovation & Skills (BIS, 2009) compiled a number of consultancy and public sector reports on additionality across a range of areas of public expenditure in the UK. They reported that

deadweight was more prevalent in government sponsored business development expenditure, when compared to expenditure on infrastructure or investment in people and skills. Yet Tokila, Haapanen and Ritsilä (2007) stated:

"Practically all of the literature on business subsidies has focused solely on the impacts of subsidised projects on the behaviour of firms and on regional growth. Before such considerations, however, it is important to study the initial deadweight effect of the subsidy." (p. 586)

Lenihan (1999) explained that a key element of evaluation is the level of job creation that is attributable to assistance. All or part of this job creation may have occurred without assistance, which is deadweight. Lenihan et al. (2005) further defined deadweight as, *'the degree to which economic activity (e.g., increased sales or productivity) at the level of the firm would have happened in the absence of intervention by public agencies.'* (p. 73)

Heijs (2003) outlined a similar term known as 'freeriding'. Initially Heijs (2003) describes a number of aspects which are deemed to be freeriding, which encompass a broader definition than that expressed by Lenihan et al. (2005). These include the substitution of private funds by capital funds, the existence of alternative sources of finance to public funds, the ability of a project to proceed in the absence of intervention and whether the quantity of public aid is important. In summary Heijs (2003) defined freeriding as *"those supported firms whose innovative efforts do not depend on public aid and probably would or could have carried out the same level of innovative activities without public support."* (p. 445).

It is important to note at this point that there is some variance between how deadweight is defined and how it is measured. Lenihan (1999) measured deadweight in the context of the propensity of an enterprise to proceed (or not proceed) with a project/activity in the absence of support. This approach gave no regard to outputs of the supported enterprise, but has become the key measure for deadweight in many studies since. As Tokila and Haapanen (2012) stated, studies of deadweight concern the efficiency of provision of assistance, as opposed to the effectiveness of generating desirable economic results. Hart and Lenihan (2004) outlined three levels of deadweight. The highest level of deadweight is full deadweight (sometimes referred to as pure deadweight). This is where government supported company growth or a supported project would have proceeded on the same scale and within the same time period, in the absence of government assistance. In other words intervention in such a situation is not necessary for company development. The next level is partial deadweight. This refers to a situation where growth would have occurred or a specific project would have been implemented but to a lesser extent in the absence of intervention. In other words intervention was necessary to achieve the same results, but a lower amount of government resources may have been sufficient. The final level is zero deadweight, where any growth or expansion plans would have been aborted had intervention not been available, thus intervention is deemed essential.

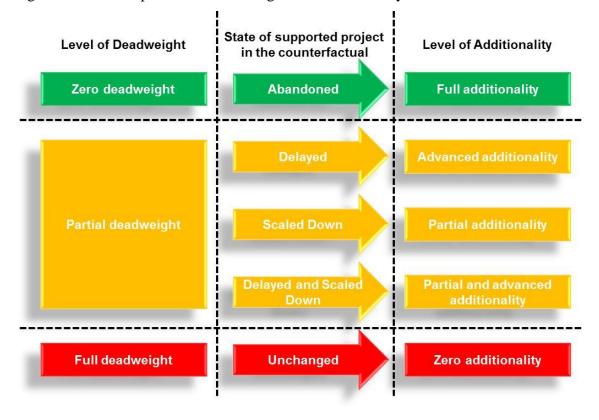


Fig 4.4: Relationship between Deadweight and Additionality

Source: Author

Based on the definitions of deadweight, the relationship between deadweight and additionality has been illustrated in Figure 4.4 and is outlined as follows. In the event of zero deadweight, a supported project or activity would have been abandoned had support not been available. Thus, the project was entirely dependent on support being available and so implies full additionality. In the case of partial deadweight, the support only contributed to the project being engaged in sooner or on a larger scale, thus there is partial or advanced additionality. In the case of full deadweight, the project would have proceeded without intervention, thus intervention has had no impact. This implies that there is zero additionality.

Though deadweight is a well-known phenomenon and is well recognised, the coverage of this issue by both academics and practitioners is limited. According to the OECD (2004), this is because it is 'notoriously' difficult to measure and even the most thorough studies have struggled to measure it. Where it has been measured, a common method used is self-assessment from the perspectives of policy makers, agencies and assistance recipients. This commonly uses 'what if' questions to examine the hypothetical, or counterfactual, situation of what would have happened in the absence of assistance. Consequently this is subject to bias and promotion of self-interests. The OECD (2004) further outlined that a control group is a necessity in such situations, though a comparative assisted enterprise and non-assisted enterprise can be difficult to establish.

## 4.4.3b Overview of Empirical Evidence of Deadweight

Lenihan (2003; 2004) compiled a summary of deadweight findings from previous studies overseas and in Ireland. These are presented in Tables 4.5 and 4.6, and updated by the author to include further studies featured in this chapter.

Based on her compilation, Lenihan (2003) noted that studies conducted in Ireland demonstrated higher levels of deadweight than those studies from other jurisdictions. Similarly, comparing more recent studies conducted in Finland and the Czeck and Slovak Republics (at the end of Table 4.5) with recent studies conducted in Ireland by Department of Jobs, Enterprise and Innovation (at the end of Table 4.6), the level of

deadweight found in Irish studies still appears to be higher than that in other jurisdictions.

Authors	Evaluation of what	Country/	Deadweight	
(year)	(focus of study)	Region	estimate	
International studies	Urban Development Grants (UDG)	UK	57%	
Public Sector Management Research	programme			
Unit (PSMRU) (1988)				
Monk (1990)	Enterprise Board Investment	UK	46%	
PA Cambridge Economic	Regional Selection Assistance (RSA)	UK	21%	
Consultants (1993)	Scheme			
Sheehan (1993)	Capital Grants to manufacturing firms	Northern	59% approx.	
	in Northern Ireland	Ireland		
Hart and Scott (1994)	Local Employment Development Unit	Northern	8%-32%	
	(LEDU) assistance	Ireland		
Public and Corporate Economic	Business Links	UK	38%	
Consultants (PACEC) (1998)				
Davenport et al. (1998)	Technology for Business Growth	New	37.5% approx.	
	(TGB) Programme	Zealand		
Tokila and Haapanen (2012)	Finnish Ministry of Trade and Industry	Finland	35.9%	
	Subsidies			
Sipikal, Pisár and Labudová (2013)	EU regional policy programmes	Czech And	36.8%	
		Slovak		
		Republics		

Table 4.5: Deadweight estimates from International Studies

Source: Updated from Lenihan (2004) by the author

However, previous investigations of deadweight have used differing methodologies, while some of the studies have used assumed levels of deadweight as opposed to measured estimates (Picard, 2001; Lenihan, 2004). Prior to Lenihan's (1999) research into Shannon Development (a government sponsored, regional development agency located in the mid-west of Ireland), the only estimates of deadweight in Ireland have been presented by Honohan (1998) and the Industrial Evaluation Unit (1999; 2000). In Honohan's (1998) case, this research did not provide any indication of how the deadweight estimates were derived. Furthermore many of these studies have not provided any explanation for the occurrence of deadweight (Lenihan, 2004). Since Lenihan (1999) there have been a number of studies from both Ireland and overseas

which demonstrate that deadweight is a persistent challenge with state sponsored support for enterprises.

Authors	Evaluation of what	Region	Deadweight
(year)	(focus of study)		estimate
Honohan (1998)	Key Issues of Cost-benefit Methodology for	National	80%
	Irish Industrial Policy		
IEU (1999)	R&D Policy and Interventions	National	50%
IEU (1999)	Micro Enterprise Supports	National	45%
IEU (2000)	Seed and Venture Capital Scheme	National	60%
Lenihan (1999)	1995 Shannon Development Grants	Shannon Region	78.4%
	(Indigenous firms only)		
Lenihan (2001)	1995 Shannon Development Grants (Foreign	Shannon Region	71.3%
	firms only)		
Lenihan (2001)	1995 Shannon Development Grants	Shannon Region	73.2%
Forfás (2003)	Start-up project	Greater Dublin	80%
Forfás (2003)	Expansion project	Greater Dublin	80%
Forfás (2003)	High Potential Start-up project	Greater Dublin	60%
Forfás (2003)	Start-up project	Rest of Ireland	70%
Forfás (2003)	Expansion project	Rest of Ireland	75%
Forfás (2003)	High Potential Start-up	Rest of Ireland	60%
	project		
Forfás (2003)	Start-up project	BMW <sup>11</sup> Region	65%
Forfás (2003)	Expansion project	BMW Region	70%
Forfás (2003)	High Potential Start-up project	BMW Region	60%
Lenihan and Hart	Enterprise Ireland	National	46.2%
(2003)			
DJEI (2015d)	Enterprise Ireland Company Expansion	National	47.1%-75.6%
	Scheme (CES)		
DJEI (2015e)	Enterprise Ireland Job Expansion Fund (JEF)	National	52.2%-86.9%

Table 4.6 Deadweight Estimates from Irish Studies

Source: Updated from Lenihan (2004) by the author

# 4.4.3c Empirical Evidence of Deadweight in Ireland

Those Irish studies of deadweight, or which have included a deadweight measurement, have been explored in greater depth in Table 4.7 and will be discussed in further detail throughout the rest of this section. Lenihan's (1999) study was among the first Irish

<sup>&</sup>lt;sup>11</sup> Border, Midlands and West Region

studies to examine deadweight from an academic perspective. This study explored the prevalence of deadweight among 77 indigenous enterprises that received grants from Shannon Development in 1995. The grants were primarily provided for employment, capital investment or R&D, with fewer grants being awarded for areas such as feasibility studies, employee training, management development and mentoring. Lenihan (1999) noted that at the time of the study, Shannon Development had reduced the number of grants dedicated to capital expenditure, in favour of employment grants, when compared to previous years. Furthermore, respondents to the study perceived the success of their applications to be based on the job creation potential of their projects.

Agency	Shannon	CEBs	Enterprise	Enterprise	Enterprise
	Development		Ireland	Ireland	Ireland
				(Company	(Jobs
				Expansion	expansion
				Scheme	Fund only)
				only)	
Study	Lenihan	Fitzpatrick	Lenihan and	DJEI	DJEI
	(1999)	Associates	Hart (2003)	(2015d)	(2015e)
		(2003)			
Time Frame	1995-1997	1999-2002	2000-2001	2005-2010	2010-2012
Sample	n=77	n=171	n=42	n=221	n=64
Full Deadweight	53.2%	30.4%	19.0%	11.5%	8.9%
Partial Deadweight (different	2.6%	1.2%	0.0%	4.9%	6.7%
location)	2.0%	1.2 /0	0.0 %	4.370	0.7 /0
Partial Deadweight (later	11.7%	13.5%	7.1%	13.3%	17.8%
date)	11.7 /0	13.376	7.170	10.070	17.070
Partial Deadweight (Reduced	22.1%	21.1%	35.7%	22.1%	33.3%
scale)	22.170	21.170	55.770	22.170	55.576
Partial Deadweight (Reduced	Not	23.4%	28.6%	31.0%	28.9%
scale and later date)	Measured	23.4 /0	20.0 /0	31.070	20.970
Partial Deadweight (different	Not	Not	2.4%	Not	Not
location and later date)	Measured	Measured	2.4 /0	Measured	Measured
Unspecified Combination of	Not	1.0%	Not	Not	Not
answers	Measured	1.070	Measured	Measured	Measured
Total Partial Deadweight	36.4%	60.2%	73.8%	71.3%	86.7%
Zero Deadweight	10.4%	9.4%	7.1%	17.3%	4.4%

Table 4.7: Comparison of levels of deadweight in Irish Supports

Source: Compiled by the author based on above listed studies

Lenihan (1999) found that 53.2% of enterprises demonstrated full deadweight, 36.4% demonstrated partial deadweight, while the remaining 10.4% of enterprises demonstrated zero deadweight. These figures were then applied to the net employment change of the sample of enterprises for the period 1995 to 1997 to estimate the number of jobs that would have been created without assistance. Under the following assumptions:

- a) All jobs created by enterprises demonstrating full deadweight were deadweight.
- b) Where a supported project would have been delayed in the absence of intervention (partial deadweight), the delay was calculated as a percentage of the overall project length. This percentage was then applied to the net increase in jobs, to calculate the proportion of jobs which were additional and those which were deadweight.
- c) Where a project would have been carried out on a smaller scale in the absence of support (partial deadweight), the project costs financed by the state were calculated as a percentage of total project costs. This percentage was then applied to the net increase in jobs, to calculate the proportion of jobs which were additional and those which were deadweight.
- d) Where a project would have been abandoned in the absence of support (zero deadweight) all jobs created by those enterprises were considered additional.

Lenihan (1999) also examined the scenario where enterprises would have continued their project in the absence of support, but in an alternative location. Only three of the enterprises in the sample would have carried out the project in a different location. Interestingly, two of these would have relocated to Northern Ireland in order to get support from the relevant agency within that jurisdiction.

Lenihan (1999) estimated that 78.4% of the net jobs created by the 77 enterprises were deadweight and that the remainder were additional. This deadweight estimate was higher than the previous IEU (1999; 2000) studies carried out in Ireland and those international studies which had been reviewed by the author. Lenihan (1999) provided further commentary regarding the characteristics of the enterprises which demonstrated deadweight and the potential reasons for deadweight. However, these factors were not

quantified within the article. Lenihan (1999) noted that start-up grants were more likely to have an impact on the enterprise than grants provided to existing clients of Shannon Development. The most frequent response given for enterprises abandoning their projects in the absence of support was due to a lack of finance, while those delaying projects in the absence of support would have done so due to finance being available at a later time. She also discovered that 94.6% of respondents would have had access to finance had grants not been available, but that there was a much lower risk with grants and that there was a "feel good factor" involved when in receipt of a grant. In further analysis, Lenihan (1999) revealed that when full and partial deadweight enterprises were grouped, all of these enterprises would have had access to alternative finances in the absence of support. By comparison only three out of the seven zero deadweight enterprises would have had access to alternative finance of support. These findings led Lenihan (1999) to support Hart and Scott's (1994) earlier proposition that in order to minimise deadweight, all other sources of finance should be exhausted before state support is issued.

However, examination of Lenihan's (1999) findings revealed that some of those enterprises which exhibited zero deadweight, did have access to alternative finance. This indicates that support may address challenges to the enterprise other than solely a lack of finance. Indeed, Lenihan (1999) reported that 66.7% of respondents in her study agreed that their enterprises were more successful as a result of receiving support. While having access to support as a means of finance was important in this regard, the respondents also cited benefits of going through the application process in refining their business goals and plans. Those respondents who did not believe that support had made their enterprises more successful, attributed their success to their own skills, effort and motivation.

Later, Lenihan (2004) conducted further analysis on the data gathered for her 1999 study, in order to determine the characteristics of the enterprise and support which are most likely to be associated with deadweight. It should be noted that in addition to the 77 indigenous enterprises, 26 foreign owned enterprises were included, bringing the total sample to 103. Lenihan (2004) discovered that those enterprises a) which were in receipt of employment grants, b) which did not factor the receipt of a grant into their

investment appraisal when initially assessing the viability of the project, c) which were larger (in terms of number employed by the enterprise) and d) "to a lesser degree" those enterprises which were in receipt of a grant for the first time, were all more likely to exhibit deadweight. Interestingly, other factors such as enterprise sector, enterprise age, turnover size, and grant volume were not found to be significant in predicting deadweight.

In relation to the City and County Enterprise Boards (CEBs) the author was only able to locate one study which provided deadweight indicators which was a consultancy report by Fitzpatrick Associates (2003) (See Table 4.7). Out of a sample of 171 supported enterprises, 30.4% of respondents agreed that in the absence of funding they would have proceeded unchanged, while a further 60.2% displayed some form of partial deadweight. It should be noted that this study did not use these estimates of deadweight to calculate the deadweight in job creation in a similar method to Lenihan (1999; 2004). This study did not attempt to provide any explanation for these figures either. However, it did provide some insight into the views of CEB staff members in relation to deadweight. It reported that CEB staff had no formal method of identifying deadweight but attempted to minimise it through evaluating applicant companies' financial position, examining promoters <sup>12</sup>, personal means, negotiating grant levels and emphasising repayable grants. However, a number of CEBs denied the existence of deadweight or described it as an intellectual problem. Other respondents on the agency side stated that deadweight was mitigated by the higher survival rates of CEB supported companies and the clients' ability to lever extra funds from private sources of finance.

Lenihan and Hart (2003) conducted a study of 42 Enterprise Ireland (EI) clients, who received support in 2000 and 2001, in order to assess the level of deadweight (See Table 4.7). They found that 19% of enterprises demonstrated full deadweight, while 7.1% exhibited zero deadweight. The remaining enterprises (73.8%) demonstrated partial deadweight. Using a similar approach to Lenihan (2004), they applied the number of deadweight instances to the net employment change of the enterprises and discovered that 46.2% of jobs supported by EI were deadweight. However, later Hart and Lenihan

<sup>&</sup>lt;sup>12</sup> Promoter is a term used by Irish enterprise agencies to refer to the owner/manager who is responsible for developing an enterprise and is the key contact in interactions between the agency and the enterprise.

(2006) reassessed these estimates. From other data gathered, they determined that receipt of EI support enabled enterprises to "lever" additional finance from the private sector (as outlined in section 4.4.1). This additional finance would therefore reduce deadweight/increase additionality. Where respondents perceived EI funding to have enabled them to leverage additional finance from the private sector, Lenihan and Hart (2006) estimated a reduced level of deadweight. However, two factors must be borne in mind when considering this approach. Firstly, the leveraging effect was estimated using an "arbitrary" percentage. Secondly, the authors conceded that the leveraging effect may have already been considered by the respondent when deciding on which counterfactual situation was most appropriate for their enterprise.

Since Lenihan's (2004) work, Irish Government departments have conducted a series of evaluations (see Table 4.6 and Table 4.7) on EI support. These evaluations have solely measured the approximate level of deadweight but not provided any further analysis. The Department of Jobs, Enterprise and Innovation conducted an evaluation of the EI Job Expansion Fund from 2010 to 2012 (DJEI, 2015e). They found that 8.9% of projects were full deadweight, 4.4% were zero deadweight and the remainder were partial deadweight (see Table 4.7). Their overall deadweight estimate was a range of 52.2% - 86.9%. DJEI (2015d) also analysed EI's Company Expansion Scheme for 2005 to 2010. They found that 11.5% of projects were full deadweight, and the remainder were partial deadweight, and the remainder were partial deadweight. Their overall estimate for deadweight was a range of 47.1% - 75.6%. Interestingly, both of these evaluations stated that agencies are recommended to assume a level of 70% to 80% deadweight when appraising projects, prior to approving support for applicants.

## 4.4.3d Empirical Evidence of Deadweight from International Studies

In an international context, Heijs (2003) conducted a study of enterprises which had received R&D funding through the government sponsored Centre of Technological Industrial Development (CDTI) in Spain. Over 40% of the 1,354 enterprises supported by the scheme responded to the questionnaire for this study, making it considerably larger than previous studies related to deadweight. Heijs (2003) employed three indicators to assess the prevalence of freeriding (the aforementioned concept with similarities to deadweight) using three indicators including a) enterprises' use of support

to replace their own finance, b) firms that could have raised alternative funds from private sources instead of employing support and c) firms that perceived the quantity of support to be unimportant in achieving the project aims. Heijs (2003) discovered that 34% of these enterprises demonstrated at least one of the above characteristics. The occurrence of these characteristics was more prevalent among older enterprises, as they had a greater track record and greater access to finance. This is in contrast to Lenihan's (2004) findings where age of the recipient enterprise was not found to be a factor. However, freeriding was less frequent among those enterprises engaged in higher risk projects (Heijs, 2003).

Tokila, Haapanen and Ritsilä (2007) explored deadweight within the Finnish context. The study concerned discretionary, non-repayable grants issued by the Ministry of Trade and Industry (KTM) for capital investment. Similar to Lenihan (1999), Tokila et al. (2007) grouped partial and full deadweight enterprises together for the purposes of the analysis. The main difference was, enterprises were asked about the outcome of the project in the absence of support, prior to the support being implemented. Thus it was an ex-ante evaluation as opposed to ex-post. Out of 3,423 projects, 16.9% were zero deadweight. Contrary to Lenihan (2004) but similar to Heijs (2003), the study found the younger firms were more likely to exhibit zero deadweight. Furthermore, projects with higher costs, or where the ratio of project costs to turnover was higher, demonstrated lower levels of deadweight. However, similar to Lenihan (2004), turnover as a variable by itself was not found to be significant to the presence of deadweight. The study also found that enterprises in peripheral regions were also more likely to exhibit zero deadweight. Finally, unlike Lenihan (2004), the study found that evidence of deadweight was more prevalent in some sectors than others. However, it should be noted that the Finnish study did include traditional sectors such as wood manufacturing, which had been traditionally subsidised by the Finnish Government (Tokila et al, 2007).

In a later study Tokila and Haapenan (2012) conducted analysis on the same scheme but on a larger scale and with a greater focus on regional comparisons. In total 5,744 projects were examined. Similar levels of zero deadweight were reported (16.8%), but in this analysis the levels of partial deadweight were distinguished from full deadweight. Approximately 39.4% of enterprises reported that they would have carried out their projects on a reduced scale in the absence of assistance, 28.6% would have carried the project out at a "reduced qualitative level" (ie investing in less technologically advanced or second hand equipment), while 13.8% would have carried out their projects at a later date. This left only 1.4% of projects in the full deadweight category. Tokila and Haapenan (2012) found that enterprises in more peripheral regions of Finland were less likely to exhibit deadweight. The study also discovered that the significance of project and enterprise characteristics (such as the type of project and the size and industry of the enterprise), on the level of deadweight, varied between regions. This led the authors to conclude that assistance should be targeted at different types of enterprises in different regions, in order to minimise deadweight.

More recently, Sipikal et al. (2013) conducted a study of deadweight across 291 enterprises in the Czech Republic and 123 enterprises in Slovakia. This study excluded the temporal deadweight aspect and instead gathered the percentage of the supported project budget that would have been spent in the absence of intervention. From this measurement they estimated that 36.8% of expenditure was deadweight, with the level of deadweight in the Czech Republic (38.46%) being marginally higher than that in Slovakia (33.15%). The study did not find any statistically significant differences between the levels of deadweight when assessed on enterprise or regional characteristics. However, they did discover that deadweight was more likely in capital investments compared to educational or employment grants and more likely in smaller value projects.

## 4.5 Summary

This chapter has provided insight into the rationale for government intervention and how governments intervene. It has also outlined how such intervention should be evaluated and how it has been evaluated in previous studies. It is clear from this review that there has been a lack of implementation of the more advanced steps (Steps 4 to 6) from Storey's (1998) framework (see Table 4.3), particularly in previous studies on deadweight. These previous deadweight studies have employed hypothetical counterfactual scenarios to gauge the extent of additionality and the presence of deadweight, solely among supported enterprises. Such approaches best correspond with Storey's Step 3 evaluations.

Within the Irish context, while deadweight has been examined, it has not been comprehensively evaluated with regard to CEB and EI supports. The only study within the CEB system of support was conducted by practitioners (Fitzpatrick Associates, 2003) and only measured deadweight at a rather superficial level, failing to provide any depth of analysis. From the perspective of EI, while an academic study (Hart and Lenihan, 2004) was completed, this study used a very small sample and also excluded many of the key features that characterise enterprise support currently available in Ireland. Of particular note, was the exclusion of soft supports. Supports issued through EI are typically issued as a package of financial and soft supports. In order to fully evaluate the presence and impact of deadweight, the effects of the full package of support must be considered.

Methodological and contextual considerations aside, there is also a lack of understanding as to why deadweight occurs. While previous studies such as Lenihan (1999; 2003) and Hart and Lenihan (2004) have provided indicators as to where deadweight may occur, these studies have provided very limited understanding as to why deadweight occurs and what the full consequences of this are. At firm level, deadweight has been tested against elements such as enterprise maturity, size and sector. At the level of support, deadweight has been tested in relation to the amount and type of funding. While such evaluation identifies where deadweight occurs, it does little to capture the circumstances and factors which resulted in its occurrence.

The presence of deadweight has also been linked to the availability of finance. Previous studies (such as Lenihan, 1999) have proposed that deadweight may occur if an enterprise can secure finance from sources other than government support. However, it should be noted that some of those that demonstrated zero deadweight in these same studies also noted that they would have been able to raise alternative finance had support not been available. This conflicts with recommendations proposed in these papers that deadweight may be eliminated if enterprises are not provided with support until they have exhausted all other avenues of finance. Thus it is important to explore the reasons why supported projects may be abandoned or may proceed if support is not available.

Furthermore, the previous examinations of deadweight have failed to examine support from the perspective of the enterprise support agencies. These studies typically examine national policy, as has been completed in the background chapters of this thesis, and then attempt to relate this examination to findings from an evaluation of enterprises. In order to develop a greater understanding of support it may be necessary to examine support from the perspective of those who are administering it. For example, it may be important to understand if agencies are aware of deadweight and if they take any measures to prevent it. When agencies evaluate applications for support it is important to understand if they can identify enterprises which are likely to create deadweight or if information asymmetries prevent these agencies from identifying if companies can proceed with plans in the absence of support

Following the review of the literature a novel framework has been devised, which synthesises deadweight and the other inefficiencies, in order to develop a greater understanding of deadweight. This framework shows how these inefficiencies may be linked to deadweight, and how deadweight may be linked to additionality, and makes propositions as to the factors which may result in deadweight occurring. The framework is been presented in Figure 4.5.

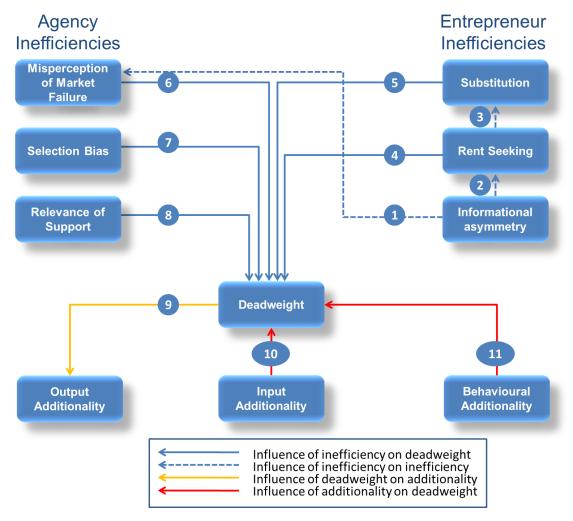


Fig 4.5: Relationship between Inefficiencies and Additonality

Source: Author

The relationships between the concepts in Figure 4.5 are described as follows. Arrow 1 proposes that where there are information asymmetries between the entrepreneur and the support agency, this may create a situation whereby the agency misperceives the impact that market failure has on the enterprise. Similarly, this information asymmetry may allow the entrepreneur to engage in rent seeking, marked by Arrow 2. Where an entrepreneur engages in rent seeking, they may be in a position to substitute or replace privately sourced firm inputs with assistance (Arrow 3). Where both rent seeking and substitution occur, the support is not required thus deadweight occurs (Arrows 4 and 5). From the agency perspective, should they misperceive market failure, they may give support where it is not actually required. In such a situation a supported project would have been able to proceed without support, and so it would be deadweight (Arrow 6). In

the case of selection bias, the agency is selecting high potential companies or better quality companies for support. If agencies select high performance companies (selection bias), it is important to understand if these companies are likely to be able to achieve their goals without financial support and thus demonstrate deadweight (Arrow 7). Finally, from the agency perspective, if support is issued that is not relevant to the enterprise or does not address the challenges that the enterprise is facing, it may not have any impact. Therefore the projects that the firm is engaged in may proceed as a result of factors other than support. This would lead to deadweight, as marked in Arrow 8. With respect to additionality, the relationship between deadweight and additionality has been outlined in Figure 4.4. Similarly in Figure 4.5, where deadweight exists, there may be no additionality in terms of outputs (Arrow 9). However, it is important to understand if the other types of additionality have an impact on the enterprise and may mitigate for deadweight. For example, as Hart and Lenihan (2006) alluded to, deadweight may be mitigated by entrepreneurs leveraging support to raise additional finance for the enterprise. This is a form of input additionality and marked in arrow 10. Finally, behavioural additionality has frequently been excluded from past evaluations. It is important to understand if support changes the behaviour of entrepreneurs and if these behaviours have an influence on deadweight (arrow 11). While this presents an interesting model for testing it has solely been developed based on existing literature. There may be other elements which influence the presence of deadweight which have not been outlined in prior works, and so further investigation is required.

In summary, the existing studies surrounding deadweight have provided interesting findings and highlighted inefficiencies in government spending on enterprise. However, these studies have also provided opportunities for further analysis. This current research develops a greater understanding of the concept of deadweight. It takes a more in depth approach to measuring deadweight by examining it from both the perspectives of supported and unsupported enterprises, corresponding more closely with more advanced stages of Storey's (1998) framework. It also examines deadweight from the perspective of the agency; a perspective which has typically been excluded from previous evaluations. Examining deadweight from these multiple perspectives develops a greater understanding of how deadweight occurs, and what impacts this has, for both the enterprise and the agency, and also the implications it has for the development of policy

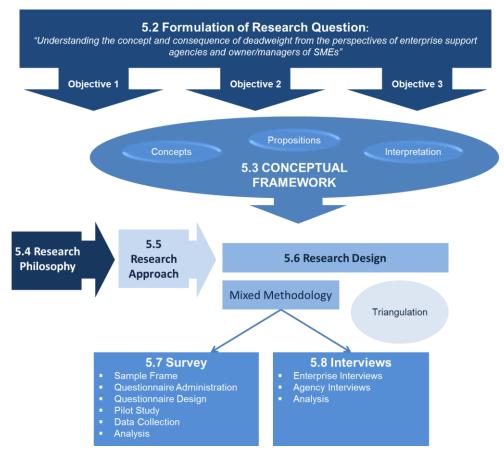
tools. The next chapter of this thesis examines the methodological considerations for conducting this study and develops the approach employed to conduct this study.

**Chapter 5 - Methodological Considerations** 

# **5.1 Introduction**

It is clear from Chapter 4 that deadweight is a challenge to maximising additionality from support for SMEs, and thus a key inhibitor for maximising the impact of government expenditure. Yet, previous studies provide a limited understanding of how deadweight occurs. Furthermore, while these studies have been rigorous in their analysis, their samples do not correspond with what is suggested in the evaluation literature, as they only examine supported enterprises. It is the researcher's view that further research surrounding deadweight is required, that corresponds with the more advanced stages of Storey's (1998) framework and that also examines deadweight from an agency perspective. The purpose of this chapter is to present the methodology employed in conducting this research, and is summarised in Figure 5.1.

## Fig 5.1: Structure of Chapter 5



Source: Author

The chapter begins with the specification of the research question and research objectives (Section 5.2). This is followed by an outline of the conceptual framework (Section 5.3), an overview of the philosophical stance adopted (Section 5.4) and details of the research approach (Section 5.5). Finally, the research design is presented in Section 5.6, with the remaining sections presenting details of the sampling and methods employed.

## 5.2 Research Question and Objectives

The aim of this research is to gain a greater understanding of deadweight and in doing so, gain insight into why supported enterprise projects would have proceeded, changed or have been abandoned had support not been available. This research initially identifies the prevalence of deadweight through evaluating perceptions of enterprises which were recipients of support. However, this research advances previous studies of deadweight by also capturing the perspectives of owner/managers of unsupported enterprises and those of the support agencies also. Furthermore, this research aims to explore supported and unsupported enterprises in a more in-depth manner to unravel specific features of enterprises that may influence the requirement for support, and the subsequent influence that support has on the actions of owner/managers. Finally, this thesis seeks to explore deadweight in the context of the potential presence of other inefficiencies associated with support (as discussed in Chapter 4) which may be present in the Irish system of enterprise support. Thus the aim of this research can be expressed as:

To gain an understanding the concept and consequence of deadweight from the perspectives of enterprise support agencies and owner/managers of SMEs.

Based on the research question and the aims of this research, the following objectives have been developed:

- I. What are the reasons why enterprises seek financial support and what is the rationale for government agencies providing financial support?
- II. How do support agencies select enterprises for financial support and under what conditions is support allocated to enterprises?

III. To what extent is financial support a catalyst for the development of recipient enterprises, relative to unsupported enterprises?

With the aims and objectives of this research developed, the next part of this chapter outlines the conceptual framework developed, to highlight the key elements underpinning this research.

## **5.3 Conceptual Framework**

According to Curran and Blackburn (2001), following selection of the research topic "the main concepts related to the topic and hypothesis or initial propositions about how concepts are linked, has to be spelt out. This needs to be in some detail before firm decisions about the research design can be made." (p. 37). Thus, the next element of this research is to develop a conceptual framework. Miles and Huberman (1994) explained that a conceptual framework "explains either graphically or in narrative form, the main things to be studied – the key factors, constructs or variables – and the presumed relationship among them. Frameworks can be rudimentary or elaborate, theory driven or commonsensical, descriptive or causal." (p. 18).

A useful first step in the development of a conceptual framework is to define the concepts involved. Curran and Blackburn (2001) stated that concepts are the basic elements of theory and interpretation construction. They further stated that a concept may mean different things to different researchers, and the definition of these concepts is related to the context of the research being undertaken. The author of this current study fully appreciates the necessity of this, following presentation of earlier iterations of this work at international academic conferences and colloquiums. For example, he found that the definition of "support" varies considerably across different European jurisdictions. To this end, the following concepts pertinent to this research have been identified and are defined in Table 5.1 overleaf, for use in the conceptual framework.

#### Table 5.1: Concepts

Concept	Description
Indigenous	An enterprise with 250 employees or less, which is based in Ireland and Irish owned.
SME	
Project	A new, expansion or improvement activity within the SME, or a start-up of a new SME
Financial	Funding provided by the state to part-finance start-ups and expansion activities within
Support	enterprises (i.e. repayable or non-repayable grants, or an equity investment by the
	agency)
Soft Support	State funded assistance services provided to enterprise. These supports do not involve
	any financial elements being given directly to the enterprise (i.e. mentoring, consultancy
	and advisory services, and training)
Agency	The authority which administers supports to enterprises, namely Enterprise Ireland and
	City and County Enterprise Boards

Another important aspect of the conceptual framework is the hypotheses or propositions. Curran and Blackburn (2001) described these as "*statements which assert a relationship between two or more concepts*" (p. 41). An important element of these hypotheses/propositions is that they can be proven false, thus they must define a particular state of the concepts involved in the research. For this research the propositions are described as follows in Table 5.2.

Proposition	Description			
SMEs require government	This implies that support contributes in some way to SMEs			
sponsored financial support to	engaging in growth projects and/or starting-up, either through			
engage in projects	providing finance that was not available, incentivising the SME			
	owner/manager to engage in the project, validating the viability of			
	the project or by some other influencing factor, thus support has			
	created additionality.			
SMEs do not require	This implies that support has had no influence on a project, related			
government sponsored financial	to an SME, proceeding and thus there is deadweight.			
support to engage in projects				

Table 5.2: Propositions

A third element of the conceptual framework is the interpretation of the hypotheses/propositions. The interpretation is the development of the understanding as

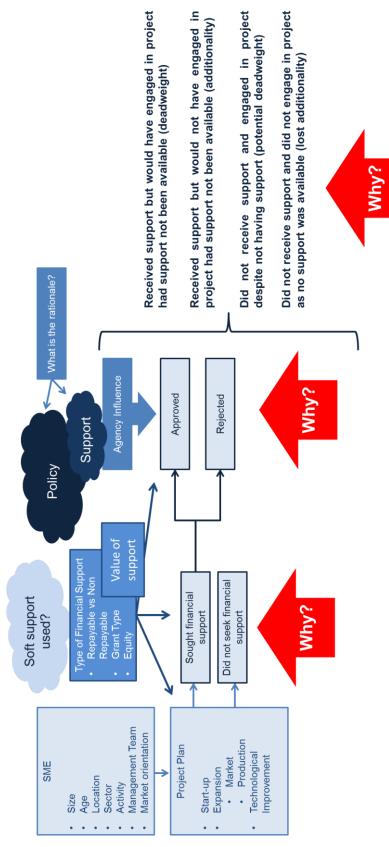
to why the links between the concepts, shown in the proposition, are either proved or disproved (Curran and Blackburn, 2001). Thus the interpretation of this work is outlined in Table 5.3.

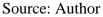
Interpretation	Description		
Financial support has an impact	The aim of this research is to examine if support does or does not affect		
on the development of an SME	SMEs carrying out projects, and interpret why the support has or does		
	not have this effect.		

Following the identification of concepts, the development of propositions and the explanation of the interpretation, it has been possible to graphically represent the conceptual framework for this thesis, which is presented in Figure 5.2 and described as follows.

The framework begins with the concept of the SME and its characteristics. Emerging from the SME is the concept of the project which may be the start-up of the SME or some form of expansion or development. In order to carry out the project the SME may seek or not seek financial support. As presented in the objectives of this thesis, one of the aims is to understand why financial support is sought or not sought. This decision is examined in the context of the type of financial support available and the value of support which is sought. This research also seeks to understand why applications for financial support are accepted or rejected. This decision is made by the government agency in the context of policy and the supports emerging from this policy, based on the agencies understanding of the rationale for the development of policy and the provision of support. Finally this thesis aims to discover what the outcomes are of this process and to understand if support is a catalyst for these outcomes. All of these outcomes are examined, cognisant that both recipients and non-recipients of financial support may receive soft supports from the agency.

Fig 5.2: Conceptual Framework

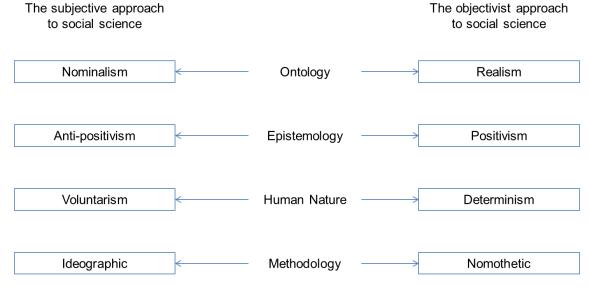


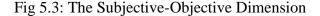


## 5.4 Research Philosophy

This section outlines the research philosophy of the author. Easterby-Smith, Thorpe and Lowe (2002) provided three reasons why understanding the philosophical issues are necessary. Firstly, they help to clarify the research design, in terms of the type of evidence required, how it is gathered and how it is interpreted. Secondly it allows the researcher to better identify which designs will work and which will not. Finally, understanding the philosophy can help the researcher identify designs that are unrelated to their previous experience.

Burrell and Morgan (2008) presented a well-known framework to examine the philosophical positions which underlie social science, across four sets of assumptions; ontology, epistemology, human nature and methodology which are presented in Figure 5.3, and are discussed throughout this section.





Source: Adapted from Burrell and Morgan (2008)

Ontology is the assumption of the nature of the social world we study (Greene and Hall, 2010) and has two polar traditions; nominalism and realism. Nominalism posits that social reality is relative, and that individuals attempt to structure this reality through the

creation of names, concepts, and labels. By comparison, Realism assumes that the social reality is separate from the individuals' perceptions and beliefs, and exists regardless of the labels that individuals attach to it. This research concerns the distribution of enterprise supports, created within enterprise policy, to enterprises by agencies, all of which exist within the business environment. On one side, the business environment and indeed policy exists regardless of perception or labels applied to them. Thus the assumptions of realism apply. However, this thesis concerns the perception of the actors in the support process. Namely, it concerns the interpretation of enterprise policy by the enterprise agencies and the perceptions of enterprise owner/managers of the counterfactual situation which would exist had support not been provided. Thus elements of a nominalist ontological perspective apply. In summary, the ontological perspective of the author is somewhere in between these extreme views.

According to Saunders, Lewis and Thornhill (2006), epistemology is "what constitutes acceptable knowledge in a field of study" (p. 102). Easterby-Smith et al. (2002) outlined two such epistemological views; Positivism and Social Constructionism. The latter is sometimes referred to as interpretivism (Robson, 2002) and akin to the anti-positivist view as presented by Burrell and Morgan (2008). They presented the key features of each tradition in a very clear and concise manner which is useful in establishing the views of human nature and methodology and also for discussing the current researcher's philosophical stance. The key features of both are outlined in Table 5.4.

A researcher aligning oneself with either epistemological view would typically have consequences for the type of approach and strategy employed in a piece of research. The positivist approach is aligned with nomothetic research; research based on "systematic protocol and technique" (Burrell and Morgan, 2008). In Saunders et al. (2003) "Research Onion" it would correspond with a deductive approach employing quantitative strategies such as experiment or survey. By comparison an anti-positivist/social constructivist/relativist researcher typically seeks to induce theory through qualitative strategies such as action research or ethnography.

	Positivism	Social Constructionism		
The Observer	Must be independent	Is part of what is being observed		
Human Interests	Should be irrelevant	Are the main drivers of science		
Explanations	Must demonstrate causality	Aim to increase general understanding of the situation		
Research progresses through	Hypotheses and deductions	Gathering rich data from which ideas are induced		
Concepts	Need to be operationalised so that they can be measured	Should incorporate stakeholder perspectives		
Units of analysis	Should be reduced to simplest terms	May include the complexity of the whole situations		
Generalisation through	Statistical probability	Theoretical abstraction		
Sampling requires	Larger numbers randomly selected	Small numbers of cases chosen for scientific reasons		

Table 5.4: Positivism vs Social Constructionism

Source: Easterby-Smith et al. (2002)

In addition to these two distinct views, Easterby-Smith et al. (2002) also introduced a third epistemological perspective named relativism. This view is similar to positivism, as it adopts a scientific approach to the development of knowledge. However, it differs from positivism in its ontological position. Relativism assumes the view that ideas are only deemed to be "truth" following debate and that facts are dependent on the view point of the observer. To this end, a relativist approach will attempt to record multiple viewpoints and use multiple methods to achieve triangulation. Unlike positivism which seeks to determine causality and social constructivism that seeks to create understanding, relativism seeks to discover correlation. This approach will rely on large samples, but concede that the views gathered will only represent a probability of what exists in the entire population. A variant of this view is critical realism which is the approach that seeks to identify false understandings and provide an impetus for change (Robson, 2002).

The author of this thesis can relate to different aspects of each epistemological perspective. For example, returning to the features of each view presented in Table 5.4, the positivist view that the observer is independent holds true, as the author is neither

the owner/manager of an SME nor an agent of the state. However, the human interest is not irrelevant to this study, reflecting a social constructivist perspective. This thesis concerns the development of an understanding of the cause of deadweight, yet also seeks to gain a greater general understanding of the system of support as a whole through gathering rich data. Thus it straddles both epistemological stances. Similarly, in terms of concepts, deadweight is operationalised in terms of the use of counterfactual hypothetical situations, yet the requirement for multiple stakeholders is also required to develop a deeper understanding of the complex concepts which have emerged from study of enterprise support inefficiencies. Furthermore, aspects of critical realism are apparent as this thesis aims to potentially uncover misunderstandings on the part of agencies in issuing support where it is not required by the enterprise and proposing change to ensure effective spending of exchequer funds.

While the author's ontological view may seem confused, debate regarding ontology supports this stance. For example, Saunders et al. (2006) stated that none of these views are necessarily better than the other and that researchers will typically identify with individual elements of each view. Furthermore, Robson (2002) explained that the debate between adherents to the two paradigms has become counterproductive. While some argue that the debate between the two should cease because they are clearly incompatible, others have proposed that in practice there is a greater accord between the two in practice, than can be discovered from studying their philosophical underpinnings. Indeed, Greene and Hall (2010) stated that the philosophical assumptions of paradigms are critical to social inquiry to guide decisions regarding operationalising of research, however they also stated that "the character of social inquiry practice is shaped and moulded by more than philosophical assumptions." (p. 122). They further explained that subjects studied and the methods by which a researcher analyses results are guided by many things such as discipline, favoured theories, personal and professional life experience, political factors and personal values. The author has been strongly guided by professional experience, by extant theories relating to inefficiencies associated with enterprise support and by literature concerning methods for evaluation of enterprise support.

Furthermore, as an alternative to the philosophical debate and the subsequent impact on chosen strategy and methods, Robson (2002) outlined the concept of pragmatism, which he states is a philosophical position in itself. Pragmatism involves using *"whatever methodological approach works best for a particular research problem or issue."* (p. 43 Robson, 2002) and one which Bryman (2004) defined as a practical approach to research. This philosophical stance is the one which underpins mixed methodology research. As has been discussed in Chapter 4 and will be discussed in greater depth later in this chapter, mixed-methodology has been condoned by both academia (Curran, 2000; Hart and Roper 2005) and at practitioner level (OECD, 2004; EIM, 2004) when evaluating support. The literature discussed in Chapter 4 also outlines the methods which should be employed in best practice evaluation. While being cognisant of the wider philosophical debate, it has been the literature on evaluation practices which have guided the methods used in this thesis, thus a philosophical position based on pragmatism is the one which has been adopted by the author.

## 5.5 Research Approaches

Following the philosophical discussion, the next element of the methodology is to identify the broad approach to the study. Saunders et al. (2006) described the two polar approaches which may be taken to research; deductive and inductive. The key elements of these two approaches are summarised in Table 5.5.

As can be seen in Table 5.5, the two approaches are quite distinct from one another, but as Curran and Blackburn (2001) stated that a piece of research can often benefit from adopting elements of both approaches. Such is the situation in this current research.

One of the core elements of this research is to identify if deadweight exists in the Irish enterprise support system. This involves measuring the already existing theory of deadweight. It also involves identifying enterprise characteristics which may result in deadweight, thus establishing causality. As such this element of the study is deductive.

Deduction Emphasises	Induction Emphasises
Scientific Principles	Gaining an understanding of the meanings humans
	attach to events
Moving from theory to data	A close understanding of the research context
The need to explain causal relationships	The collection of qualitative data
The collection of quantitative data	A more flexible structure to permit changes of
	research emphasis as the research progresses
The application of controls to ensure validity of	A realisation that the researcher is part of the
data	research process
The operationalisation of concepts to ensure clarity	Less concern with the need to generalise
of definition	
A highly structured approach	
Researcher independence of what is being	
researched	
The necessity to select samples of sufficient size in	
order to generalise conclusions	

Table 5.5: Features of Deductive and Inductive Approaches

Source: Saunders et al. (p.89, 2006)

This chapter began with the operationalising of concepts in the conceptual framework. Following this, an initial proposition that deadweight is an enterprise's ability to proceed with planned projects without intervention was developed. In order to test this proposition, it is necessary to replicate previous studies approaches in the current support context. This means collecting quantitative data from large samples, in a highly structured approach. These features are highlighted in Table 5.5 as being related to the deductive paradigm.

However, previous studies of deadweight have not provided an in-depth understanding of how deadweight occurs. While the initial stages of this research test for the presence of deadweight using a quantitative approach, the later stages focus on capturing an understanding of why this occurs. As such, where deadweight or additionality is found, further investigation is required, through in-depth analysis, to discover why this is the situation. Owing to the complexity of the situation involving deadweight, a qualitative approach has been adopted for the latter stages of this research. Qualitative techniques are more closely associated with an inductive approach, yet this research builds upon the existing theory of deadweight and thus is regarded as deductive.

However, there are other aspects of this research which may be more appropriately aligned with an inductive approach. As inferred in the research question, the aim of this study is to gather perspectives. This involves understanding the meanings humans attach to events. Furthermore, given that a supported project is influenced by policy, agencies, the macro-environment and features of the SME, an understanding of the context is required.

Finally, from the author's perspective being independent of the research is a significant feature of this evaluation. The author has not been directed by policy makers or agencies to conduct this research. He is also not a client of any agency and does not currently operate an SME. Thus, his perspective is more akin to a deductive approach, as presented in Table 5.5.

Overall, despite this thesis demonstrating some elements which are more aligned with an inductive approach, the research can be viewed as being largely deductive. Given this approach, the next section explores the choices of methods, further refining the research design.

## 5.6 Research Design

Saunders et al. (2006) outlined a number of broad research choices which a researcher can make. These included mono-method, multi-method and mixed-method. When considering which is best, it is important to reflect on the epistemological view of the researcher and the subsequent approach(es) adopted for this thesis. As has been noted in the previous sections the author relates to elements of positivism, relativism and social constructionism, but overall has adopted a pragmatic perspective. Positivism is typically associated with quantitative techniques, social constructionism is typically associated with qualitative techniques, while a pragmatist approach suggests using whichever methods are deemed most suitable. Indeed, pragmatism is often aligned with the use of mixed-methodology approaches (Robson, 2002). In terms of the research approach, this thesis is largely deductive, but does correspond to some characteristics of an inductive approach. Again this view is aligned with the use of mixed methods.

Finally, while many of the previous studies concerning deadweight or other concepts have involved a mono-method, the literature concerning the area of enterprise support evaluation condones a mixed-method approach at both academic (Curran, 2000; Hart and Roper 2005) and practitioner level (OECD, 2004; EIM, 2004), as discussed in Chapter 4. As will be discussed in section 5.7, the gathering of details regarding the value and type of support sought lends itself to being gathered in a quantitative survey. Furthermore, establishing the extent to which deadweight is perceived to exist among a large sample also would be best gathered through a survey. However, to gain a deeper insight into the concept and consequences of deadweight, a qualitative interview approach would enrich the findings of a survey and provide new insights. Thus, a mixed-methods approach of surveying enterprises and conducting follow-up, semi-structured interviews was deemed to be the most appropriate choice for this research. Furthermore, this thesis seeks to capture the perceptions of the staff of enterprise agencies, thus semi-structured interviews with these staff were also required.

Such an approach also facilitates triangulation, allowing for both validation of findings and the capturing of different aspects of the concepts being investigated. Robson (2002) outlined four types of triangulation; data triangulation (use of more than one method), observer triangulation (use of more than one observer), methodological triangulation (use of both qualitative and quantitative approaches) and theory triangulation (use of more than one theory or perspective). The mixed-method approach results in data triangulation, while the fact that the mixed-methods include both quantitative and qualitative measures allows for methodological triangulation. Saunders et al. (2006) added a further aspect of triangulation, outlining that using different cohorts is also a form of triangulation. As already specified, this thesis captures the perspectives of both supported and unsupported enterprises, and also of enterprise agency representatives, thus providing further triangulation. This will be discussed in the following sections of this chapter.

### 5.7 Survey

A survey method was chosen for the first phase of primary research of this thesis. It is, in part, aimed at replicating elements of previous studies which have evaluated deadweight. There are multiple reasons for completing this element of the research. Firstly, this thesis seeks to build on previous work. In order to relate the findings of this thesis to previous studies, it would be appropriate to gather similar data points. Secondly, the survey seeks to identify companies which may exhibit deadweight, so that these can be studied further in the latter stages.

#### 5.7.1 Sample Frame

This section examines the sample frame for the survey phase of primary research. Essentially it addresses the "who" and the "when" of this research. As far as the author is aware, all previous studies which have either been concerned with, or factored in, deadweight have solely examined supported enterprises. Thus the sample frame for these previous studies consists of the recipients of supports from a given agency within a selected time period. Yet, as discussed in the literature, the sample frame of previous studies is at odds with best practice models such as Storey's (1998) Six Steps framework.

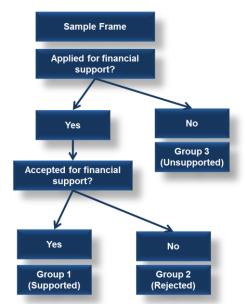
As explained in Chapter 4, Storey's (1998) Step 6 evaluations compare supported and unsupported enterprises, and employ statistical techniques (such as the Heckman Two Step model) to account for selection bias. Employing such techniques mitigates for the potential for enterprise support agencies to provide support to higher performing enterprises. Thus such techniques isolate the impact of support from the overall higher growth characteristics of those enterprises which are typically supported. However, this step was developed by Storey (1998) in the context of measuring the effect of support on enterprise performance, typified by measures such as revenue growth and profitability. This thesis does not place the emphasis on such measures but rather examines the perceived impact of support on the actions of owner/managers of SMEs. Thus, a Step 6 approach was not deemed appropriate. A Step 5 approach compares

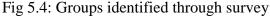
supported and unsupported enterprises which closely resemble each other in terms of sector, age, ownership and geography (Storey, 1998). The principle difficulty with using this approach for this thesis is that support has high levels of penetration within eligible sub-sectors in Ireland and particularly among high potential enterprises in these subsectors. Thus, building precisely matching samples of supported and unsupported enterprises would have presented a significant amount of difficulty. By comparison a Step 4 evaluation on Storey's (1998) framework compares assisted enterprises with "typical" enterprises. This thesis resembles a Step 5 approach, in that it introduces an element of matching. However, to describe both supported and unsupported samples as truly matching would be a fallacy due to the heterogeneous nature of the Irish enterprise base. In reality, the approach adopted for this thesis falls somewhere between a Step 4 and a Step 5 evaluation and is described as follows.

For this thesis, the sample frame consisted of SMEs which were potentially eligible to receive financial support from EI or the CEBs. As discussed in Chapter 3, this includes all indigenous SMEs involved in manufacturing and internationally traded services. However, establishing the precise size of this sample frame is not possible due to a mismatch between enterprise statistics, available from the Central Statistics Office (CSO), and the criteria for support eligibility. Based on a review of enterprises statistics in Chapter 2, in 2011 there were approximately 24,267 SMEs operating in sectors which could be eligible for support<sup>13</sup>. However, this figure is solely indicative and includes enterprises which were ineligible for financial support. For example, CSO statistics do not allow for segregating indigenous enterprises from foreign owned enterprises, thus it is likely that there are foreign owned enterprises within this figure. Furthermore a cohort within these enterprises may solely supply services to the domestic market and as a result may be ineligible for support. Thus the sample frame may be smaller than 24,267. For the purposes of this thesis, and to introduce an element of matching between supported and unsupported samples, only indigenous enterprises operating in these sectors were included.

<sup>&</sup>lt;sup>13</sup> Sector (NACE Codes) include Manufacturing (C), Telecommunications (61), Computer programming, consultancy and related activities (62), Information service activities (63), Engineering activities and related technical consultancy (7112), Scientific research and development (72)

Similar to Steps 4 to 6 of Storey's (1998) framework, this sample frame was subdivided into supported and unsupported enterprises. However, this thesis used the novel approach of comparing three groups rather than two, which are described as follows and illustrated in Figure 5.4. Group 1 consisted of enterprises which applied for financial support and were subsequently approved by the agency. Enterprises in Group 2 applied for financial support but had their applications rejected by the agency. Group 3 did not apply for financial support from the agency.





## Source: Author

While the supported and unsupported enterprises are drawn from the same sector-based sample frame, this approach did not meet some of the criteria of Storey's (1998) Step 5 evaluation. While age of the enterprise was measured in the survey, this was not used to exclude enterprises from the evaluation and not used to limit the sample frame. Similarly, in terms of ownership, while only indigenous enterprises were included, no regard was given to ownership structure. Finally, in terms of geography, location of the enterprises in the sample was examined, but as EI and the CEBs offer supports nationwide, the sample frame was not limited by regional geography. Thus, while enterprises within the sample frame do not match precisely (as per Step 5 evaluations), enterprises cannot be regarded as being "typical" either (as per Step 4 evaluations).

Another aspect of the sample frame is the time horizon. This is a critical area of the research and there are a number of factors to consider. Firstly, as discussed in Chapter 4, the results of evaluation can be impacted by the economic cycle (Wren and Waterson, 1999). This may impact on two levels. Firstly, firms may be able to perform better or engage in projects more easily during times of economic prosperity. Secondly, during economic downturns, the requirement for assistance may be greater. Ireland was exiting a severe recessionary period as this thesis was commencing in 2011, as presented in Table 5.6. Between 2009 and 2011 the unemployment rate was more than double what it had been in the preceding three years. In terms of the SME demography, the overall numbers of SMEs were in decline year on year as were the numbers employed in SMEs. Furthermore the number of enterprise deaths was far exceeding the number of enterprise births. Thus, enterprises applying for support prior to 2008 would be experiencing considerably different conditions to those applying for support in the subsequent years.

	2006	2007	2008	2009	2010	2011	2012
GDP growth (annual %)	5.40	5.45	-2.11	-5.46	-0.77	1.43	0.94
Unemployment (% of total labour force)	4.4	4.6	6	12	13.9	14.6	14.7
SME Population	211,449	215,668	215,737	206,094	194,972	188,595	185,049
Number engaged in SMEs	1,045,251	1,092,804	1,057,849	907,656	854,518	838,829	829,045
SME Births	16,696	13,461	11,954	13,810	11,237	11,847	12,551
SME Deaths	11,939	17,263	20,601	24,511	18,308	18,076	N/A
			1	IME FRAME	OF THESIS		

Table 5.6: Economic indicators for Ireland, 2005 to 2012

Source: World Bank Databank (2014), CSO (2016a)

Environmental factors aside, there are features to consider which are more pertinent to support. One dimension of this is the conditions that are applied to support. Firstly, enterprises have a maximum of 12 months to draw down on approved support. This means that an enterprise approved for support in the months leading up to the field work may not yet have engaged in the supported project. Furthermore, in the case of the EI HPSU programme (as outlined in Chapter 3), enterprises are given up to three years to achieve the goals set out in the programme. Thus companies supported in 2011 may have only fully realised the goals they set out to achieve by the time the field work for

this thesis commenced in 2014. These considerations mean that surveying and interviewing too soon after support has been issued may yield unusable results.

Another factor to consider is that much of the questioning relies on respondent memory. This was referred to in Chapter 4 of this document. Lenihan (1999) commented that questioning enterprises relatively soon after support was issued, countered this problem. Overall this means that there is a limited time period to conduct an accurate evaluation of this type. For this study, the time period selected was for those companies that were approved for support between 2008 and 2011. While this is a longer time between support approval and evaluation than what Lenihan (1999) employed, it would allow for full realisation of planned project goals by the enterprise.

In summary, the sample frame for the survey phase of primary research consists of enterprises operating in manufacturing, telecommunications, computer programming, consultancy and related activities, information service activities, engineering activities and related technical consultancy, and scientific research and development. Within this sample frame there are three cohorts: 1) enterprises which applied for financial support between 2008 and 2011 and were accepted, 2) enterprises which applied for financial support between 2008 and 2011 and were rejected and 3) enterprises which never applied for financial support.

### 5.7.2 Questionnaire Administration

Saunders et al. (2006) defined two broad categories of questionnaires. These include self-administered questionnaires (such as online, postal or hand delivered questionnaires) and interviewer administered questionnaires (including telephone questionnaires and structured interviews). Previous studies of deadweight such as Lenihan (1999; 2003) and Hart and Lenihan (2004) used interviews for the purpose of measuring deadweight. However, it should be noted that the former study was concentrated on a regional scheme in a relatively small area, while the latter relied on a small sample. However, the data gathered in both of these studies was primarily quantitative with closed ended type questions, thus suited to a questionnaire or structured interview. Furthermore, the logistical issues of the chosen method must be

considered. Enterprise Ireland (EI) and City and County Enterprise Boards (CEBs) have national coverage, unlike Shannon Development, and support large numbers of companies (as highlighted in Chapter 3). Conducting interviews on such a scale would not be feasible.

It was decided to conduct a survey using an online questionnaire, facilitated by the online tool 'SurveyMonkey'. According to Saunders et al. (2006) online questionnaires have a number of advantages and disadvantages over other channels for delivering questionnaires. In terms of advantages there is scope to cover wider geographical areas. As already stated, this is a national study thus an online questionnaire was deemed the most suitable. Saunders et al. (2006) also explained that there is a high degree of confidence that the right person in an organisation will respond to the questionnaire if it is e-mailed directly to them, and low likelihood of "contamination" of answers from respondents consulting with others while completing the questionnaire. Furthermore, it is faster, more cost effective and data can be exported directly to analysis programmes, rather than being manually transcribed or relying on optical mark readers. However, there are two main draw backs. Firstly, the population must be made up by computer literate individuals who can be contacted online. Secondly, online questionnaires generally have a low response rate of typically less than 10% (Saunders et al, 2006).

Aside from the general advantages of online questionnaires, there was a key advantage for this particularly study. It was planned to issue a single questionnaire for all companies, both supported and unsupported, because it was not known at the outset if a given company had received support at some stage in the past or not. This meant that respondents would only be required to fill out sections of the questionnaire appropriate to their situation. The online questionnaire programming tool allowed for respondents to be directed to the relevant sections based on initial responses to questions about whether they received support or not, without seeing questions which were not relevant to them.

### 5.7.3 Questionnaire Design

The questionnaire was designed to gather some preliminary data about the enterprise, details of any previous support sought, and perceptions of support. The questionnaire primarily consisted of closed questions. As Sekaran (1992) explained, closed questions

allow the respondents to make quick decisions and allow for simpler coding of information for later analysis by the researcher. However, Sekaran (1992) also stated that closed questions can be confining for the respondent. As such, some of the questions had an added open-ended option to allow respondents provide an alternative option, where the list of options provided may not have been exhaustive.

Filter questions were added to direct respondents to the questions relevant to them, based on whether they had applied for financial support or not, and subsequently, if their applications had been rejected or not (see Appendix A).

Included in the questionnaire was a variation of a closed question which has typically been used for measuring deadweight among support enterprises in previous studies. In the case of Lenihan (1999; 2003), the question was phrased; "In the absence of grant assistance from Shannon Development in 1995 would you have (choose one option only)?"

- (a) Gone ahead as now unchanged, that is, same scale, time and location.
- (b) Gone ahead at a different location but otherwise unchanged.
- (c) Gone ahead at a later date but otherwise unchanged (that is, delayed the project).
- (d) Gone ahead on a reduced scale but otherwise unchanged.
- (e) Abandoned the project

A similar comparative question was developed for those enterprises which had applied but been rejected for support, but instead of being phrased in hypothetical terms it was phrased to enquire what actually happened to the proposed project/activity following rejection of support.

Lenihan (1999) also gathered a number of variables, listed in Table 5.7. As can be seen these variables lend themselves to being incorporated in closed ended questions. In addition to these a number of other questions were asked which Lenihan (1999) used in her analysis, including an estimate of the number of months the project would have been delayed by had support not been available. Metrics relating to enterprise performance and output were also included, such as questions about profitability, R&D expenditure, patents granted, new product development, sources of finance used and background details of the owner manager.

Table 5.7: Variables used in former deadweight studies

Variables
Whether the investment appraisal carried out by firm included the grant received from Shannon
Development
Amount of grant received
Grant type
Whether the grant received was for start-up or expansion purposes
Sector
Age of firm
Size of firm (measured in terms of number of employees)
Percentage employment growth 1995-1997 (slow-growth versus fast-growth firms)
Grant amount as a percentage of turnover
Type of ownership
Whether grant received was a first time or repeat grant
Turnover

Source: Lenihan (2003)

A number of other questions were also incorporated including information about soft supports received and interactions with other agencies. Finally a series of statements about perceptions of support were incorporated for use in discussions in the second phase of research. These statements were accompanied by five point Likert scales. Statements applicable to supported enterprises were rephrased to become relevant to the context of both enterprises rejected for support and enterprises which had never applied for support. The statements were phrased in both positive and negative terms to avoid respondents' tendencies to select points at one end of the scale (Sekaran, 1992). The full questionnaire is included in Appendix A of this thesis along with a matrix which demonstrates how each question relates to the research objectives.

#### 5.7.4 Survey Pilot Study

The initial questionnaire was developed and was then piloted among three enterprises in late 2013. It was discovered from this process and discussions with the respondents that this initial questionnaire was too time consuming and too burdensome. Furthermore respondents were reluctant to answer some of the questions owing to the sensitivity of these to their enterprises. The respondents also explained that some of the data requested in the questionnaire required the respondent to look up accounts or other materials to be able to answer accurately. Finally, a number of ambiguous and esoteric terms were identified.

The questionnaire was subsequently revised. The key information sought by Lenihan (1999; 2003) was retained as per Table 5.7, adapting it to suit the supports offered by EI and the CEBs. The only exception was for information on turnover, which was excluded owing to discussions with respondents to the pilot questionnaire. The variable regarding investment appraisal was also excluded, as the researcher was aware that in applying for funding in the current structure, it is a key component that the financial support is factored into the application for support. The majority of metrics regarding enterprise performance and output such as questions about profitability, R&D expenditure, patents granted, new product development, sources of finance used and background details of the owner manager were also removed.

#### **5.7.5 Survey Data collection**

This section discusses the development of the sampling techniques that have been employed in this study. According to Sekaran and Bougie (2010) there are a number of steps in the sampling process which include, definition of the population, the determination of the sample frame, determination of sample design, and determination of appropriate sample size. The sample frame was established in section 5.8.1.

In terms of sample design, non-probability, convenience sampling was initially selected. Networks with SMEs as members were approached as these networks would be likely to contain both supported and unsupported enterprises. These networks were initially asked for contact lists in order to administer the questionnaire to their members. All of the networks approached were reluctant to pass on their member contact information as they wanted to protect their members' privacy. The networks were then asked if they would distribute the questionnaire directly to their members. Two of these networks agreed to do so, while the others would only accommodate indirect forms of distribution. The networks and the methods of distribution employed have been outlined in Table 5.8. Each of these networks has been anonymised. However, the initial approach did not yield sufficient responses to meet this requirement. In total 89 companies responded to the survey.

Group Description	Questionnaire Distribution Network		Responses	Response	
	by:	size:		Rate	
A national organisation	E-mailed link to				
representing small	questionnaire directly to	1,778	85	4.8%	
businesses	members				
A national organisation	E-mailed link to				
representing software	questionnaire directly to	800	0	0%	
enterprises	members				
A national accounting	Incorporate link to				
body	questionnaire in their	3,903	1	<1%	
	monthly newsletter				
A national network and	A national network and Agreed to post link to survey		1	<1%	
forum	on Twitter social media feed	2,729	1	<b>N170</b>	
A locally based	E-mailed link directly to	17	2	11.8%	
incubator	enterprises hosted	17	2	11.0%	
Total		9,227	89	1.0%	

Table 5.8: Groups approached to distribute questionnaire

Source: Author

Following the low response rate via the representative organisations, the author decided to increase the size of the sample frame and adopt a different sample design. The sample design selected was probability, simple random sampling. This design suited the study better as it allowed for the results to be generalised for the whole population of enterprises (Sekeran and Bougie, 2010). The sample was derived from a number of elements. For supported enterprises the author retrieved client lists from EI and CEB

annual reports for 2009, 2010 and 2011. These lists contained the names of all of the companies approved for support in those years. Extracting contacts from the CEB annual reports proved slightly more problematic than for the EI supported enterprises. Firstly, not all of the CEB annual reports were available. Secondly, within these annual reports there were inconsistent reporting standards. For example, some annual reports included individual approvals for financial support, some included payments of financial support, some included entire client lists for all years, while others contained no information about individual clients. Thirdly, many of the CEB clients had no online presence and no e-mail address could be located. For the sample of unsupported companies, business telephone directories were used.

Combined, 6,782 enterprise names were retrieved. For enterprises selected from this list e-mail addresses were retrieved through internet searches. Building the list of e-mail addresses to go with the enterprise names was completed in a number of steps as follows:

- Typically the owner/manager is involved in applications for financial support from EI or the CEBs, so it was decided to identify the Chief Executive Officer (CEO) or Managing Director (MD) of each enterprise based on an internet search.
- 2. Where direct e-mail addresses for CEOs and MDs were available these were added to the list, however, these were only available for a small minority of enterprises.
- 3. Where specific e-mail addresses for CEOs or MDs were not available, internet searches were completed using e-mail addresses made up from the CEO or MDs name, the company's general e-mail address and typical formats of company e-mail addresses. For example, if the CEOs name was John Smith and he was working for a company which had a general e-mail address of "info@company.com" the following addresses were searched for:
  - a. johnsmith@company.com
  - b. john.smith@company.com
  - c. john\_smith@company.com
  - d. jsmith@company.com

- e. smithj@company.com
- f. john@company.com
- g. johns@company.com
- 4. Where the search yielded a result, with one of the above being featured in a press release, article or membership list of a particular association or club, the e-mail address was added to the list. This approach was highly successful in retrieving direct e-mail addresses for CEOs and MDs.
- 5. Where none of these were available, the general company e-mail address was used.

E-mails were sent individually to each e-mail address and an introductory e-mail was addressed personally to the CEO or MD where applicable, and contained a simple description of the study and a link to the questionnaire. In total, 1,273 e-mails were sent in May and June 2014. A reminder e-mail was sent in August 2014 in an attempt to gain further responses. While this approach was extremely time-consuming for the author, it yielded a good response rate, particularly given the time constraints on senior management of an SME and the complex and sensitive nature of the questions being asked.

The response rates are presented below in Table 5.9. Out of the 1,273 e-mails sent, 314 (25.5% of the sample) commenced the questionnaire while 134 (10.5%) completed it. The latter response rate is broadly in line with what was suggested by Saunders et al. (2006).

Emails Sent	Total	Total	Total	Completed
	Responses	Response	Completed	Response
		Rate		Rate

Table 5.9: Survey Response Rates

Source: Author

The combined approaches yielded 413 responses of which, 215 were completed. However a number of the respondents were not from eligible sectors for support and needed to be excluded. The final sample was 160 respondents. The sample is profiled in Chapter 6.

#### 5.7.6 Survey Analysis

The responses from the survey were downloaded directly to Microsoft Excel from the online survey tool and incomplete responses were removed manually. For the majority of questions, the online system did not allow for respondents to skip questions thus there were few instances missing values. However, when asking for employee figures respondents were asked to provide the number of fulltime and part-time jobs created by a project. It was feasible that an enterprise could have created some fulltime jobs and no part-time jobs, thus these fields were required to be left as optional in the survey design. Diamantopoulos and Schlegelmilch (2004) stated that there are approaches which can be used to input figures in place of missing values such as allowing statistical packages to assign system missing values, or inputting the average value of the other responses. However, Diamantopoulos and Schlegelmilch (2004) warned that this can be considered as fabricating data. Instead, unanswered questions were coded with missing data codes. There were instances of what Diamantopoulos and Schlegelmilch (2004) described as logically inconsistent data. In fields such as grant value, respondents were required to provide a numerical response, in Euro, as to the value of the grant received. In one case the figure of "1" was provided. This value was excluded and instead counted as a missing value.

The questionnaire also contained an open-ended question to gather the category of funding applied for by the enterprise. These were sorted and grouped into eight categories including Start-up/HPSU, R&D, Productivity and Business Process Improvement, Market Research and Internationalisation Supports, Management Development, Feasibility, Employment and Capital. For closed questions, the exported spreadsheet contained actual responses. For the purposes of analysis in SPSS these responses were coded using numeric values and a code book was developed to identify which numeric value equated to a given response. In order to increase the ease of response, the respondents were not asked for location or sector of their enterprise as this

could be added by the researcher based on an internet search. These details were added for each enterprise, and also coded with a numeric value.

The data was imported to SPSS and a number of statistical tests were conducted to determine if there was any evidence of statistically significant differences between enterprises which had applied for support and those which had not, and between those enterprises who had been accepted for support and those which had been rejected. Independent t-tests were used to determine if there was any difference in the groups based on the numbers employed by the enterprises and the age of the enterprise. Chi Square tests were employed to determine if there were differences based on nominal data, such as location and sector.

Mean scores from Likert scales were analysed and further independent t-tests were carried out between supported and rejected enterprises, where there were matching statements to allow comparison. Finally, independent t-tests were carried out to determine if there were any significant differences between enterprises which demonstrated full deadweight, and those which demonstrated partial and zero deadweight, based on features of the enterprise, amount of support given, and mean ratings of responses to the Likert questions.

Further analysis was conducted in Microsoft Excel through the development of a formula to determine how many of the jobs created by enterprises were additional and how many were deadweight. The formula was an adaptation of Lenihan's (1999) study and is presented in Chapter 6.

# **5.8 Interviews**

The second phase of the primary research involved qualitative research. Interviewing was selected as the method for this element of the study. Saunders et al. (2006) distinguished between three types of interview; structured, semi-structured and in-depth. Semi-structured interviews were selected as an appropriate method for this part of the research. Such interviews allow the researcher to use a list of themes and questions but also allow the researcher to omit questions, depending on the context and allow the researcher to break off to explore interesting aspects which emerge during the course of

the interview. The questions used in the interviews are included in Appendices B, C, D and E of this thesis. As Saunders et al. (2006) demonstrated, semi-structured interviews are primarily used for explanatory research, but can also be used for elements of exploratory work. This compares to structured interviews which are primarily used for descriptive studies and in-depth which are solely employed in exploratory work.

Due to the geographic dispersion of the interviewees, interviews were conducted by telephone. Sekaran (1992) explained that conducting telephone interviews have the disadvantage of the researcher not being able to record non-verbal cues and expressions. Saunders et al. (2006) also explained that it is more difficult to build a level of trust between the interviewer and interviewee via telephone. This was mitigated through reassuring respondents that all information would be anonymised in the thesis. Furthermore, the author emphasised that the research was of an academic nature and not a commercial study, and that it was not commissioned by any third party. Saunders et al. (2006) also noted the practical difficulties in conducting telephone interviews, namely in relation to recording these. However, no such problems were encountered in this research, as the interviews were conducted in a quiet room with only the interviewer present, using a speaker phone.

#### 5.8.1 Enterprise Interview Sample

For this phase of research, respondents to the questionnaire were selected to participate in interviews. This is a form of double sampling, but more specifically random sampling is involved to meet quotas for companies that fall into each segment; supported, rejected and non-applicants. This means that, a selection of enterprises were chosen based on their responses to the questions concerning the application. The purpose of the interviews was to develop an understanding of why enterprises applied for or did not apply for support and also explore the deeper issues related to whether their enterprise could or could not proceed with projects in the absence of support. While such a sampling method means that the results cannot be generalised across the population, it allows for greater exploration and analysis of the deeper issues involved (Sekaran and Bougie, 2010). In total, 11 enterprise owner/managers were interviewed of which, five had successfully applied for financial support, three had applied for financial support and were subsequently rejected, and three had never applied for financial support. The interviewees and their enterprises are profiled in detail in Chapter 7.

### 5.8.2 Agency Interview Sample

Another important aspect of this research is to examine the perspective of Enterprise Agencies. Based on information reviewed in Chapter 3 and experience of engaging in pilot interviews (explained in the next chapter), criteria was developed for this aspect of the current research. EI operates on a regional basis (as outlined in Figure 5.5), with each region displaying its own unique characteristics in terms of industry structure and economic development. In terms of area, the aim of this study was to gather agency views from a number of regions. This is particularly important for the CEB perspectives. Beyond macro environmental factors there are differences in the supports that are offered by individual CEBs (Hanley and O'Gorman, 2004). Thus gaining coverage across all regions was important. However, as was discovered in the pilot interviews, EI operates on a national basis with the same procedures in each region. The organisation is, however, more hierarchical and so it was decided to interview representatives working at different levels of the organisation rather than on a regional basis.

In terms of the selection of EI representatives, the pilot study found that EI Development Advisors (DAs) were the individuals most involved with evaluating applications for support and with interacting with the clients. By contrast, senior management in EI were not able to provide the same level of detail on enterprise interactions and individual application evaluation, but were able to provide a broader view on the objectives of support.

From a CEB perspective, the structure of individual CEBs is uniform across the country, and includes an executive team, an evaluation committee and a board. Based on pre-existing knowledge, it is the executive team and particularly the CEOs and Assistant CEOs of the CEBs which have the most interaction with enterprises and have the responsibility of bringing applications to the evaluation committee and board. Thus, it is the CEOs which have the greatest knowledge of enterprise board functions.

## Fig 5.5: Map of Irish Regions



Source: Enterprise Ireland (2016)

Thus, for interviews with enterprise agency representatives, quota sampling was selected. This approach was selected so that there were representatives of CEBs from a diverse number of regions and representatives from different levels of EI's organisation hierarchy. In total five EI representatives and eight CEB representatives were interviewed. The profiles of the interviewees are presented in detail in Chapter 8.

#### **5.8.3 Interview Analysis**

The audio recordings of the interviews were transcribed verbatim, including all colloquialisms and speech disfluencies (i.e. 'ums' and 'ahs'). The author transcribed the initial interviews in order to assist with developing familiarity with the content. However, in order to improve efficiency, the majority of interviews were transcribed by a professional from a legal background who specialised in transcribing interviews and was sensitive to the confidential nature of materials. Following transcription, the researcher read the interview transcripts while listening to the audio recordings in order to ensure the quality of outputs. Simultaneously, the researcher kept memos to note key themes emerging from the interviews.

In terms of analysing the data, the researcher initially considered using the software program, NVIVO. Despite having experience with a wide range of software programs, the author did not find NVIVO to be particularly user friendly. As such, and as suggested by Saunders et al. (2006), trying to familiarise oneself with such a program may distract from the data analysis itself. More importantly, Saunders et al. (2006) stated that use of such programs may lead to fragmentation of data. As this thesis aims to build a holistic view of support and gain a deeper understanding of deadweight in the context of other inefficiencies, the researcher decided that it was more appropriate to analyse the interview transcripts by other means.

The transcripts were kept in Microsoft Word format and were coded using comment boxes available in that program. As recommended by Miles and Huberman (1994) a 'start list' of codes was developed. These were based on the inefficiencies outlined in Figure 4.5 in Chapter 4, the research question and research objectives outlined in Section 5.2 and the conceptual framework in Section 5.3. These became master codes and comments were added to sections of text in the transcriptions where appropriate to indicate that the content related to a particular code. A series of sub-codes were developed to identify and quantify components within each of the master codes. Another set of codes was also developed to identify relationships between master codes. When the coding had been completed, relevant material was cut from the original documents into new documents, where each document represented a key theme. These new documents were drawn from to write up the findings chapters.

### 5.9 Validity and Reliability

According to Saunders et al. (2006) validity and reliability must be considered to reduce the possibility of drawing incorrect conclusions from the material gathered during the research process. In relation to a research instrument, such as a questionnaire, Sekaran (1992) explained that validity specifically examines how well an instrument measures the concepts. One such test to establish validity is face validity whereby observation of the instrument, by the researcher or an expert, validates that the concepts are being measured. There were a number of steps taken in the development of the questionnaire to ensure face and content validity. Firstly, the core questions evaluating the presence of deadweight, and the associated variables which were gathered, are replicated from a number of previous studies (namely Lenihan (1999), Hart and Lenihan (2004) and Tokila and Haapenan (2012)). Furthermore, the questionnaire was developed in conjunction with the author's supervisors and with constant reference to the conceptual framework for this study. Finally, and arguably most critically, a pilot study was conducted, as described in Section 5.7.4, whereby ambiguous terms were identified and changed and the least relevant variables were excluded, before conducting the main body of field work.

Similarly, validity was achieved in the semi-structured interviews through careful development of an interview guide, in conjunction with the author's supervisors and with constant regard to the conceptual framework. In addition to this, the interview guide was sent in advance of the interview to the interviewees to ensure they understood the themes and topics being discussed. At the beginning of each interview, the author explained the study in simple terms and asked if the interviewees had any questions before commencing the interview.

Silverman (2001) provided additional measures which can be employed to ensure validity, namely triangulation and respondent validation. As explained in Section 5.6 this thesis achieves triangulation in a number of ways, through data triangulation, method triangulation and triangulation through the use of different cohorts. The use of

triangulation can serve to overcome partial views provided by the use of only one method (Silverman, 2001). Indeed, in the development of the instruments for the various phases of research in this thesis it was recognised that subjective concepts, such as rent seeking, could not be measured in a survey, while the gathering of numerical data may hinder the interview process.

Reliability refers to how consistently an instrument measures a concept. Reliability can be examined through test-retest measures, where concepts are measured among the same cohort twice (Sekaran, 1992). Testing the reliability of the field work in this manner was again achieved through triangulation and the use of double sampling. The interviews with enterprise owner/managers presented the opportunity to discuss the results of the questionnaire further. Challenges to the reliability of this thesis were discovered when discussion of the responses to qualitative, perceptual based questions regarding deadweight, caused two of the interviewees to re-evaluate the answers which they had provided in the questionnaire. The change in response was not due to any ambiguity in the original question in the questionnaire, but rather through in depth discussion of the implications of the answer. However, as Silverman (2001) explained, it has been argued that reliability of observations, in terms of their replicable nature, in qualitative research where there is a philosophical view of the world being in social flux, may not be relevant. Reliability in the context of qualitative research, and specifically in terms of interviews, can be achieved through employment of "low inference descriptors". These include tape recording of face to face interviews, careful transcription and presenting long extracts of data in the research report. In this sense reliability has been achieved. As already described, all interviews were audio recorded. Initial interviews were transcribed by the author, while the majority of the interviews were transcribed by a professional transcription service. These transcriptions were read by the author while listening to the audio recordings to ensure accuracy. Finally, verbatim extracts have been used in Findings Chapters 7 and 8.

#### 5.10 Summary

This chapter reviewed the research design of this current study. It began by outlining the research question and the objectives, which concerns developing a greater

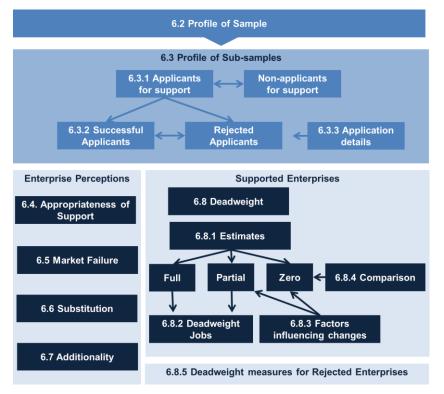
understanding of deadweight, from the perspective of enterprise owner/managers and enterprise agencies. This was followed by a review of the philosophical and methodological approaches to conducting such a study, also drawing from academic and practitioner literature surrounding the area of government intervention evaluation. Based on this review a mixed-methodology was selected for this study involving questionnaires and semi-structured interviews, to be administered to groups of supported and unsupported enterprises. Furthermore, agency views have been incorporated through the use of semi-structured interviews. The next chapters of this document present the findings of the three phases of primary research conducted for this study.

# Chapter 6- Analysis of Inefficiencies in the Irish Enterprise Support System

# 6.1 Introduction

This chapter presents the findings from the first phase of the primary research conducted for this study. This phase involved issuing a questionnaire to companies which were segmented into three groups; 1) those that had applied for support and were accepted, 2) those that had applied for support and were rejected, and 3) those enterprises which had never applied for support. The purpose of this questionnaire was five-fold. Firstly, it sheds light into which companies were supported and which were not. Secondly, it provides a measurement of deadweight within the Irish enterprise support system. Thirdly, it was distributed to assist in sourcing enterprises to participate in the third phase of primary research; the enterprise interviews. Fourthly it offers discussion points and data for further discussion in the interviews with enterprises. Finally, it was developed to validate data gathered in the interviews with agency representatives.





The structure of this chapter is illustrated in Figure 6.1 and described as follows. It commences with a profile of the respondents to the questionnaire. It then examines the

inefficiencies measured by the questionnaire which include the selection bias, appropriateness of support, market failure and substitution. Finally it examines perceptions of additionality, the relationship between deadweight and additionality among the sample and the relationship between deadweight and the characteristics of support and the aforementioned inefficiencies.

### 6.2 Profile of Sample

In total 214 respondents completed the questionnaire, of which 54 enterprises were operating in sectors which were deemed not to be eligible for support and did not fit the research criteria. These enterprises were excluded in order to allow supported and unsupported enterprises in the sample to be compared in the analysis. This left a total of 160 usable responses which have been used in this chapter. This section examines the profile of these 160 enterprises.

Sector	Number of	% of
	Enterprises	Sample
Software and IT Services	59	36.9
Life Sciences	23	14.4
Other Manufacturing <sup>14</sup>	20	12.5
Industrial Equipment Manufacturing	20	12.5
Engineering activities and related technical consultancy	18	11.3
Electronics	10	6.3
Food Manufacturing	6	3.8
Precision Engineering	4	2.5

Respondents were required to give their company name at the outset of the questionnaire. This enabled the researcher to complete further secondary research on each respondent, to gather the sector in which the enterprise operated and location of the enterprise.

<sup>&</sup>lt;sup>14</sup> Other manufacturing included enterprises which were involved in basic manufacturing of metals, plastics and wood

A brief description of the respondents' activities was drawn from relevant materials such as company websites. These descriptions were then used to classify respondents into sectors, presented in Table 6.1. Software and IT Services was the most frequent sector for respondents accounting for 36.9% of enterprises (n=59). Life Sciences included enterprises operating in clinical research, pharmaceutical development and manufacture and medical device design and manufacture. This sector accounted for 14.4% of respondents. Other manufacturing accounted for 12.5% of all respondents. Overall, the eight key sectors which were represented by the sample were reflective of the typical sectors which Irish enterprise agencies support.

The location of each respondent was also added by secondary research, according to the county in which the enterprise was headquartered. The locations were then reclassified from county to region (according to Enterprise Ireland defined regions as outlined in the methodology), presented in Table 6.2 and Figure 6.2. Within EI region definitions, Dublin is included in the Mid-East region but due to the large number of companies located in Dublin, these were treated separately.

Region	Number of	% of
	Enterprises	Sample
Dublin	65	40.6
South	39	24.4
Borders	14	8.8
Mid East (Excluding Dublin)	14	8.8
Mid West	14	8.8
West	12	7.5
Midlands	2	1.3

Table 6.2: Location of Enterprises according to region (n=160)

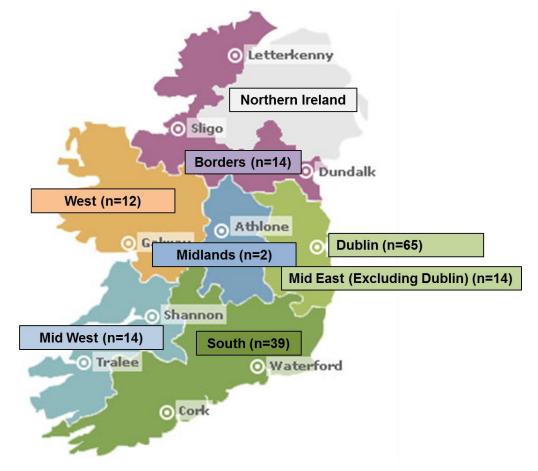


Fig 6.2: Location of sample by Enterprise Ireland defined regions

Source: Adapted from Enterprise Ireland 2015/Current Research

Dublin was the location with the largest proportion of respondents, accounting for over 40% of enterprises. The 'South' region was the next most frequent location of respondents, accounting for 24.4% of responses. This was primarily due to the high number of respondents based in Cork (Ireland's second largest city). The Midlands was the smallest region with only 2 responses. The geographic distribution of the sample is what would have been expected given the high concentration of software and IT services and manufacturing enterprises in Dublin and Cork.

Table 6.3: Descriptive Statistics	for Enterprise Age and	l Employment in	n Sample (n=160)
1	1 0	1 2	1 ( /

	Mean	Minimum	Maximum
Age of Enterprise (at time of survey)	16.93	1	95
Number employed by Enterprise (at time of	28.14	1	230
survey)			

In order to compare supported and unsupported groups, age of the enterprise at the time of survey was used as opposed to age when support was applied for. As can be seen in Table 6.3, there was a large variance in the age of enterprises in the sample, with enterprises ranging from one year to 95 years old. The average age of respondent enterprises was 16.9 years. One fifth of enterprises in the sample were 5 years old or younger at the time of the survey, and approximately 40% of the sample consisted of enterprises 10 years old or younger (see Figure 6.3).

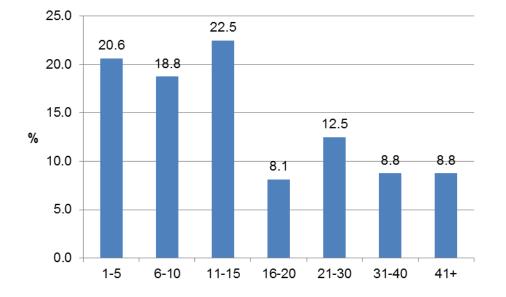


Fig 6.3: Age of Enterprises at time of Survey (n=160)

The employment level of each enterprise was also measured. In total the 160 respondent enterprises employed 4,502 people at the time of survey. This included 4,077 full-time and 425 part-time employees. The range of employees was 1 to 230 with a mean employment level of 28. In terms of category of enterprise, 40% were within the microenterprise category (1 to 10 employees), 44% were small (11 to 49 employees) while the remainder were regarded as medium size (50 to 249 employees), as demonstrated in Figure 6.4. The proportion of sample in the microenterprise category was smaller than what would be expected in the national population of SMEs. However, this was expected given that EI would have higher numbers of small and medium enterprises as clients.

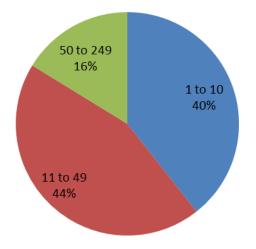


Fig 6.4: Respondents by number employed by enterprise at time of survey (n=160)

#### 6.3 Profiles of sub-samples

As discussed in the Methodology Chapter and introduction to this chapter, the total sample consisted of three groups; 1) those that had applied for support and were accepted, 2) those that had applied for support and were rejected, and 3) those enterprises which had never applied for support. This section profiles each of these groups. Initially those that applied for support (including both accepted and rejected enterprises) are compared to those enterprises which had never applied for support (EI) or a City or County Enterprise Board (CEB).

Figure 6.5 presents which of the enterprises applied for financial support. Of the respondents, 77.5% (n=124) had applied for financial support between 2008 and 2011, while the remaining 22.5% (n=36) had never applied for financial support. Of those enterprises which had applied for support, 54% had previously applied to EI, 17% to both EI and a CEB, while the remaining 6% had applied solely to a CEB.

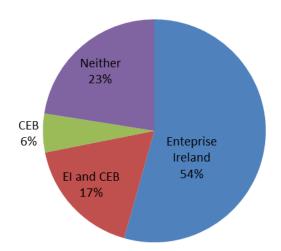


Fig 6.5: Applications for financial support up to year ending 2011, by agency

The respondents were then asked to select the agency with which they had most recently applied to for financial support within the period measured (2008 to 2011). Their responses are presented in Figure 6.6. EI was the most frequently cited agency accounting for 70% (n=112) of the sample, while CEB applicants accounted for 7% of the sample. When those who did not apply for support were excluded, those who applied for EI financial support accounts for 90% of the supported sample, while those who applied for CEB financial support accounts for 10% of the supported sample. The high concentration of EI supported enterprises in the sample is not surprising, given that the CEBs support a wider range of sectors, many of which fall outside of the sample criteria for this study.

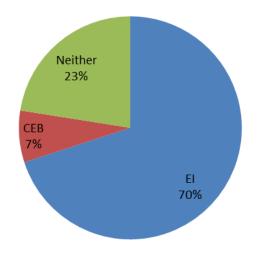


Fig 6.6: Most recent application for financial support up to year ending 2011, by agency

#### 6.3.1 Applicants and Non-Applicants

For the purpose of analysis for this section the sample was divided into two groups. "Applicants" (those enterprises that applied for financial support with EI and/or a CEB between 2008 and 2011) and "Non-Applicants" (those enterprises that had never applied for financial support with either of these agencies up to the year ending 2011). Applicants accounted for 124 enterprises (77.5% of the sample) with non-applicants accounting for 36 enterprises (22.5% of the sample). Both of these groups are profiled in Table 6.4 by sector, location, age (at time of survey), size (at time of survey) and whether they were ever located in an incubator (up to the time of survey).

# Table 6.4: Profile of respondents by group

	Applicants	Non-Applicants
	(n=124)	(n=36)
	%	%
Sector		
Electronics	6.5	5.6
Engineering activities and related technical consultancy	10.5	13.9
Food Manufacturing	3.2	5.6
Life Sciences	12.9	19.4
Other Manufacturing	12.1	13.9
Precision Engineering	1.6	5.6
Software and IT Services	41.1	22.2
Industrial Equipment Manufacturing	12.1	13.9
Region		
Borders	9.7	5.6
Dublin	41.9	36.1
Mid East (Excluding Dublin)	7.3	13.9
Mid West	8.9	8.3
Midlands	1.6	0
South	24.2	25
West	6.5	11.1
Age of Enterprise (Years, at time of survey)		
1-5	21.8	16.7
6-10	21.0	11.1
11-15	21.8	25.0
16-20	8.1	8.3
21-30	10.5	19.4
31-40	8.1	11.1
41+	8.9	8.3
Number Employed by Enterprise (at time of survey)		
1-9	33.9	47.2
10-49	46.8	47.2
50-249	19.4	5.6
Located in an incubator		
Yes	27.4	8.3
No	72.6	91.7

It is important to note that the sample was constructed only examining enterprises which operated in sectors, which EI could potentially support. Thus it would be expected that there would be relatively similar sector profiles between the two groups. As demonstrated in Table 6.4, Software and IT Services was the largest sector for both groups. However, this sector made up a larger proportion of the applicant group (41.1%) than the non-applicant group (22.2%). The non-applicant group had a higher proportion of enterprises operating in the Life Sciences sector, the Engineering Activities and Related Technical Consultancy sector and the Precision Engineering sector.

There were more respondents in Dublin in both groups, than from any other region. This may be explained by the higher proportion of companies located in Dublin than in other regions within the total population of enterprises. The proportion of companies located in Dublin was slightly lower for the non-applicant group, however there was a higher proportion of this group located in the neighbouring Mid-East region.

Enterprises in the applicant category more frequently fell within younger age groups compared to non-applicants. Approximately 42.8% of Applicants were 10 years or younger compared to 27.8% of non-applicants. Despite being more frequent in younger age categories, there was a higher proportion of applicant enterprises in larger employee bands. This indicates that these companies had experienced higher average growth in employee numbers over their lifetime (employees divided by age), when compared to non-applicant enterprises.

Finally, Applicants were more likely to have been in an incubator either prior to or during the survey, when compared to non-applicants. This is not surprising as many of the incubators in Ireland are either run by one of the support agencies or have involvement with one of the agencies. Thus it would be a natural progression for their occupant enterprises to apply for support.

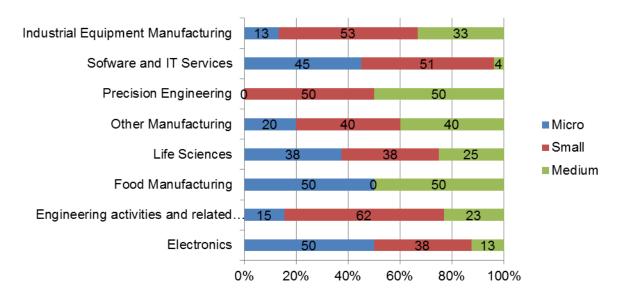
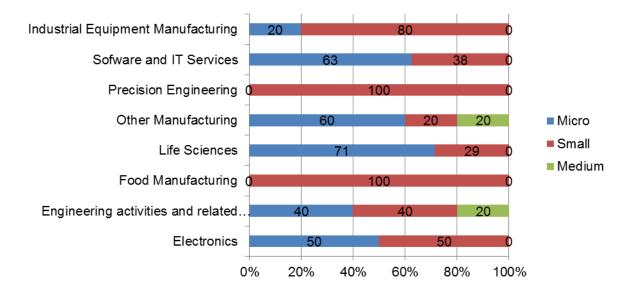


Fig 6.7: Applicant Enterprises by Sector and Numbers Employed

Fig 6.8: Non-Applicant Enterprises by Sector and Numbers Employed



Figures 6.7 and 6.8 present the size bands of the enterprises within each sector and within the two groups under examination. Within all sectors in the applicant group there were companies within the medium size enterprise classification (50 to 249 employees). This compares to only two sectors within the non-applicant group which had medium size enterprises; Other Manufacturing, and Engineering Activities and Related Technical Consultancy.

As shown in Table 6.4, Software and IT Services was the largest sector in both applicant and non-applicant groups. Only 4% of Software and IT Services enterprises in the applicant group were classified as medium. However enterprises in this sector were still typically larger in the applicant group than the non-applicant group. The next largest sector for both groups was Life Sciences. Life Sciences accounted for a higher proportion of the non-applicant group than the applicant group (Table 6.4). Considering this sector is typically associated with higher value activities, it would be expected that this sector would be better supported. However, as shown in Figures 6.7 and 6.8, 71% of life sciences enterprises in the non-applicant group were micro enterprises and the remainder were small enterprises. This compares to only 38% of life sciences enterprises in the applicant group falling into the micro enterprise classification. There were similar trends across the engineering and manufacturing sectors, with more medium size applicant enterprises in these sectors.

	Арр	licant	Non-Appl	icant			
	Number	% of Group	Number	% of Group			
Dublin	52	41.9	13	36.1			
Outside of Dublin	72	58.1	23	63.9			
χ <sup>2</sup> =	$\chi^2 = 0.392$ , df = 1, p = 0.531						
IT and Software Services	51	41.1	8	22.2			
Life Sciences	16	12.9	7	19.4			
Engineering and Manufacturing	57	46.0	21	58.3			
χ² =	4.410, df = 2,	p = 0.110					
Located in an Incubator	34	27.4	3	8.3			
Never located in an Incubator	90	72.6	33	91.7			
$\chi^2 = 5.717$ , df = 1, p = 0.017							

Table 6.5: Applicants and Non-Applicants by Location, Sector and Incubator

In order to test if there were statistically significant differences between the applicant and non-applicant groups, Chi Square tests were conducted on nominal data gathered for location, sector and whether the company was in an incubator at some point during its development. The results are presented in Table 6.5. Due to the size of the sample, locations were re-grouped into two broad categories (Dublin and outside of Dublin) so that expected values in each category would remain above 5 and so that Chi Square tests would be reliable. Approximately 41.9% of applicants were located in Dublin. By comparison 36.1% of non-applicants were located in Dublin. Using the Chi Square test, no evidence of a significant relationship was found between location and application for support. This is not surprising as EI has a national network of offices and the City and County Enterprise Boards had at least one office per county. Thus location would not be expected to be a factor influencing whether a company applied for support or not.

Sectors were also re-grouped, into software and IT services, life sciences and manufacturing and engineering. Similar to location, no evidence of a significant relationship was found between the sector and application for support. This is also as expected due to the design of this research. In order to be able to compare groups in the study, only enterprises in sectors which could potentially be supported by EI were surveyed. However given there were no significant differences within these sectors, it suggests that enterprises may apply or not apply for support based on factors other than the sector in which they operate.

However, there was evidence of a significant relationship between presence in an incubator and application for support. This is not surprising as many of the incubators in Ireland are either run by one of the support agencies or have involvement with one of the agencies.

	Applicants	Non-Applicants	t	df	p (one tailed)
	(n= 124)	(n= 36)			
Age	16.17	19.53	-1.168	158	0.122
Employment	31.88	15.25	3.572	149.253	< 0.00 <sup>15</sup>

Table 6.6: Applicants and Non-Applicants by Mean Age and Employment Level

In order to test the significance of differences between applicants and non-applicants based on age and employment level, independent t-tests were employed. The results of

<sup>&</sup>lt;sup>15</sup> Levene's P < 0.05 thus equal variances not assumed

these tests, displayed in Table 6.6, revealed that there was no statistically significant difference between enterprise age and application for support, despite non-applicants having an older average age. However, there was a statistically significant difference between the two groups based on enterprise size in terms of employment level (t = 3.572, df = 149.253, p = <0.00, one-tailed), suggesting applicants for support tend to be larger than non-applicants.

#### 6.3.2 Supported and Rejected Enterprises

The applicant group can be divided into two further sub-groups; "supported" enterprises who had their applications for support accepted, and "rejected" enterprises who had their applications for support rejected. Of the applicants for support, 90% (n=112) had their applications accepted while 10% (n=12) had their applications rejected. Their profiles are displayed in Table 6.7.

Software and IT Services was the largest sector in both supported and rejected groups, representing 38% and 67% of each group respectively. There were no enterprises in the food manufacturing, life sciences, precision engineering or industrial equipment manufacturing sectors within the rejected group, however it should be noted that the sample of rejected enterprises was very small.

Similar to the demographics of the whole sample, Dublin was the most frequent location for both groups accounting for 40% of Supported enterprises and 58% of rejected enterprises.

Supported enterprises were more evenly distributed among the age bands, while rejected enterprises were more likely to fall into younger age bands. Approximately 67% of rejected enterprises were 10 years old or younger, compared to 41% of supported enterprises. Rejected enterprises were also typically smaller, with 67% classified as micro enterprises and none of the group being classified as medium enterprises. By comparison, 32% of supported enterprises were micro-enterprises, while 20% were medium enterprises.

	Supported (n=112)	Rejected (n=12)
	%	%
Sector		
Electronics	5	17
Engineering activities and related technical consultancy	11	8
Food Manufacturing	4	0
Industrial Equipment Manufacturing	13	0
Life Sciences	14	0
Other Manufacturing	13	8
Precision Engineering	2	0
Software and IT Services	38	67
Region		
Borders	10	8
Dublin	40	58
Mid East (Excluding Dublin)	8	0
Mid West	8	17
Midlands	2	0
South	25	17
West	7	0
Enterprise Age (at time of survey)		
0-5	20	42
6-10	21	25
11-20	30	25
21-40	21	0
41+	9	8
Number Employed by Enterprise (at time of survey)		
1-10	32	67
11-10		33
50-249	48	
50-249	20	0
Located in an incubator		
Yes	27	33
No	73	67

Table 6.7: Profile of supported and rejected enterprises by group

	Supported	Rejected	t	df	P (one tailed)
	(n= 112)	(n= 12)			
Age of Enterprise	16.78	10.50	1.446	122	0.075
Number employed	34.29	9.33	4.906	72.220	< 0.00 <sup>16</sup>

Table 6.8: Mean values for Age and Employment for Supported and Rejected Groups

Independent t-tests were conducted on age and employment for supported and rejected enterprises to assess the significance of the relationships between these features of the enterprises and the group in which they fit (see Table 6.8). Despite the differences in the age profiles displayed in Table 6.7, the tests revealed no significant difference between the two groups in terms of age. There was however evidence of a statistically significant difference between average employment between the two groups, with supported enterprises being on average larger than their rejected counterparts.

#### 6.3.3 Applications for Support

Of the 124 enterprises in the sample which had applied for financial support (supported and rejected combined), the average amount applied for was  $\in$ 115,980. By comparison, the average amount of funding applied for by enterprises which were rejected for support was  $\in$ 105,333 per project, as demonstrated in Table 6.9. While supported enterprises applied for an average of  $\in$ 117,120, they actually received (drew down) an average of  $\in$ 108,985 each.

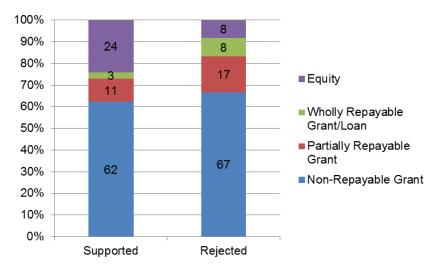
<sup>&</sup>lt;sup>16</sup> Levene's P < 0.05 thus equal variances not assumed

		Supported	Rejected
		(N=112)	(n=12)
Funding Applied For	Average	€117,120	€105,333
	Total	€13,117,530	€1,264,000
Funding Drawn Down	Average	€108,985	N/A
	Total	€12,206,393	N/A
Jobs Planned during application	Average	N/A	8.75
	Total	N/A	105
Jobs Created	Average	4.88	0.66
	Total	547	8

Table 6.9: Levels of Support Applied for and Jobs Planned/Created

Of the enterprises in the rejected category, they planned to create 105 jobs in total in the project which they were seeking support for. This equated to an average of 8.75 jobs per project. Of these only eight jobs were created by only three of the rejected projects following the refusal of their applications. This means that 97 planned jobs did not go ahead following the enterprises being rejected for support. By comparison, supported enterprises created 547 jobs in supported projects (an average of 4.88 per project). This equated to an average cost per job (state investment divided by number of jobs created) of  $\notin 22,315^{17}$ .

Fig 6.9: Type of Support Applied for by Supported (n=112) and Rejected (n=12) enterprises (%)



<sup>&</sup>lt;sup>17</sup> This figure is for total investment in all projects divided by total number of jobs created. This figure increases to  $\pounds$ 22,664 if only those projects which cited figures for jobs created are included.

Figure 6.9 displays the type of funding applied for by both supported and rejected enterprises. Non-repayable grants were the most frequent type of support applied for in both supported (63%) and rejected (67%) groups. Wholly repayable grants/loans were the least popular type of support among supported enterprises. Equity was considerably more frequently applied for by supported enterprises relative to their rejected counterparts.



Fig 6.10: Categories of Support Applied for by Supported (n=112) and Rejected (n=12) enterprises (%)

Figure 6.10 exhibits the categories of support applied for by both supported and rejected enterprises. Start-up/High Potential Start-Up (HPSU) funding was the most frequent category of funding applied for, with 22% of supported enterprises and 33% of rejected enterprises applying for start-up funding. R&D funding and feasibility study funding was the next most applied for categories of support. No companies in the rejected group applied for management development funding or productivity and business process improvement funding.

### 6.4. Appropriateness of Support

Curran (2000), Jenssen and Havnes (2002), and Boter and Lundström (2005) alluded to findings that financial support may not always be appropriate for the enterprise population that it is meant to serve. This can affect the effectiveness of support, enterprises being able to find relevant supports and ultimately uptake of support by enterprises. A number of statements were put to all three groups within the sample to test the appropriateness of support.

Statement	Group	Average Rating	Strongly Agree (1)	Agree (2)	Neither Agree	Disagree (4)	Strongly disagree
		(1-5)			nor Disagree (3)		(5)
Finding suitable financial supports	Supported (n=112)	2.25	24%	41%	21%	14%	0%
for my company's activities is difficult	Rejected (n=12)	1.66	50%	33%	17%	0%	0%
t = 1.990, df = 122, p = 0	t = 1.990, df = 122, p = 0.025, one-tailed						
The support is too restrictive as to what	Supported (n=112)	2.96	6%	30%	28%	33%	3%
activities it can be spent on	Rejected (n=12)	2.16	33%	33%	17%	17%	0%
t = 2.571, df = 122, p = 0.005, one-tailed							

Table 6.10: Agreement with the statements regarding appropriateness of support

Given that rejected enterprises were unable to acquire support, it is unsurprising that 83% either "strongly agreed/agreed" that finding suitable support was difficult, as presented in Table 6.10. However, 65% of supported enterprises also either "strongly agreed/agreed" with this statement. Independent t-tests conducted on the mean score of these statements reveal that there is evidence of a statistically significant difference between the two groups (t = 1.990, df = 122, p = 0.025, one-tailed), with rejected enterprises perceiving a greater level of difficulty in finding suitable financial supports.

Similarly, rejected companies were more likely to "strongly agree/agree" that support was too restrictive when it came to activities that it could be used for, when compared to

supported enterprises. Approximately 66% of rejected enterprises showed some level of agreement with this statement. By comparison only 36% of supported enterprises agreed with this statement. Again, there was evidence of a statistically significant difference between both groups (t = 2.571, df = 122, p = 0.005, one-tailed) with rejected enterprises perceiving a higher level of restriction when it comes to utilising support for their activities.

Perceptions from non-applicant enterprises (those who never applied for financial support from either agency) regarding the appropriateness of support are demonstrated in Table 6.11. 57% of non-applicant respondents agreed that supports were too restrictive when it came to what activities that they could be used for, while 68% agreed that they were unaware of suitable supports for their companies' activities. Approximately 40% agreed that they did not meet the conditions required to apply for support.

	Average Rating (1-5)	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly disagree (5)
The support is too restrictive as to what activities it can be spent on	2.23	37%	20%	34%	0%	9%
Unaware of any suitable financial supports for my company's activities	2.34	31%	37%	9%	11%	11%
Was not in a sector or not engaged in activities which are eligible for financial support	2.26	34%	29%	23%	6%	9%
Did not meet the conditions required by the state agencies to apply for support	2.71	20%	20%	40%	9%	11%

Table 6.11: Agreement with statements regarding appropriateness of support, by non-applicant enterprises (n=36)

Interestingly 63% of unsupported enterprises perceived that they were not in a sector or not engaged in activities which were eligible for financial support. This is in spite of the sample being restricted to sectors which would be eligible for EI and CEB support.

#### 6.5 Market Failure

The principal rationale for providing support is that of market failure. This typically refers to market failure in the context of a lack of finance availability to support growth, as referred to in the literature review. Approximately 58% of rejected enterprises "strongly agreed/agreed" that they had difficulty raising finance in the past. This compares to only 33% of supported enterprises, as presented in Table 6.12. There was evidence of a statistically significant difference between the two groups (t = 2.341, df = 122, p = 0.011, one-tailed) with rejected enterprises more likely to perceive difficulty in raising finance. If those companies which have the greatest difficulty raising finance are rejected, then the agencies are not addressing market failure. However, there are two aspects which must be considered. Firstly, an enterprise or its projects may have difficulty raising finance if it is deemed unviable. It is only reasonable that an agency would not support such an unviable project. Secondly, supported enterprises may find it easier to raise finance by virtue of being in receipt of support. Hart and Lenihan (2004) discussed this idea in terms of using support to leverage additional finance from the private sector.

	Group	Average Rating (1- 5)	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly disagree (5)
My company has had difficulty	Supported (n=112)	2.96	13%	20%	29%	32%	5%
raising finance in the past t = 2.341, df = 122, p =	Rejected (n=12) = <b>0.011. one-tai</b> l	2.16 ed	33%	25%	33%	8%	0%
Raising the necessary finance	Supported (n=112)	2.36	19%	41%	26%	14%	0%
to match support offered by state agencies is difficult	Rejected (n=12)	1.92	25%	58%	17%	0%	0%

Table 6.12: Agreement with the statements regarding raising finance

A second aspect is that of matching finance. Agencies will typically not support a whole project or enterprise, but only put up a portion of the finance required. Those enterprises

which have difficulty raising finance, may not be eligible for support because they cannot raise the matching finance. Approximately 83% of rejected enterprises "strongly agreed/agreed" that raising matching finance was difficult. This compared to 60% of supported enterprises. An independent t-test found evidence of a statistically significant difference between the two groups in this regard (t = 2.070, df = 16.173, p = 0.028, one-tailed) with rejected enterprises perceiving a greater level of difficulty in raising matching finance.

In terms of non-applicant enterprises only 34% agreed that they had sufficient access to finance to not require support, as presented in Table 6.13. This suggests that the majority of enterprises in this category are in need of finance, but as stated earlier, believe they are not eligible for support (as displayed in Table 6.11).

	Average	Strongly	Agree (2)	Neither	Disagree	Strongly
	Rating	Agree (1)		Agree	(4)	disagree
	(1-5)			nor		(5)
				Disagree		
				(3)		
Had sufficient access to finance	3.26	3%	31%	23%	23%	20%
from private/internal sources to not						
require financial support						
Would not be able to raise the	3.65	6%	3%	34%	34%	23%
necessary finance to match support						
offered by state agencies						

Table 6.13: Agreement with the statements regarding raising of finance for Non-Applicant enterprises (n=36)

However, only 9% of unsupported enterprises agreed that they would have difficulty raising matching finance. Some of this may be explained due to these enterprises not having gone through the application process.

# 6.6 Substitution

In the context of this thesis, substitution refers to a situation where support may crowd out private investment. In this study, 70% of supported enterprises and 84% of rejected enterprises "strongly agreed/agreed" that government funding would mean that their companies required less private investment. This suggests the potential for high levels of substitution among both groups. However, there was evidence of a statistically significant difference between both groups (t = 1.946, df = 122, p = 0.027, one-tailed) with rejected enterprises perceiving a greater level of substitution.

Table 6.14: Agreement with the statement "Government funding means my company needs less private investment"

	Average Rating	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly disagree			
Supported (n= 112)	2.29	16%	54%	14%	14%	1%			
Rejected (n = 12)	1.75	42%	42%	17%	0%	0%			
t = 1.946, df = 122, p = 0.027, one-tailed									

The concept of substitution was further tested among both groups. Respondents were asked a derivation of the counterfactual question used to measure deadweight (as employed by Lenihan (1999)), but solely focusing on the financial aspect. The question asked to what extent they would have had the financial resources to engage in the project if financial support had not been available. There were five possible responses, each of which are presented in the first column of Table 6.15, along with the interpretation of these responses in relation to deadweight.

Possible Response	Implication	Level of substitution
1) Had the financial resources to engage in the project fully,	Sufficient finance was available to replace financial support	Ceteris paribus, there is potential for full substitution
2) Had the financial resources to proceed on a smaller scale,	As agencies require projects to have private finance to match state inputs, the project may have gone ahead only using the matched finance already allocated for the project. Thus the project may have been reduced in scale with no extra private inputs allocated to the project.	There may be no substitution
3) Had the financial resources to proceed over a longer period of time,	Project would have required the same financial inputs to replace state funding	Ceteris paribus, there is potential for full substitution
4) Had the financial resources to proceed over a longer period of time and smaller scale	As agencies require projects to have private finance to match state inputs, the project may have gone ahead only using the matched finance already allocated for the project. Thus the project may have been reduced in scale with no extra private inputs allocated to the project.	There may be no substitution
5) Would not have had the financial resources to engage in the project at all.	No access to finance to potentially replace support	No potential for substitution

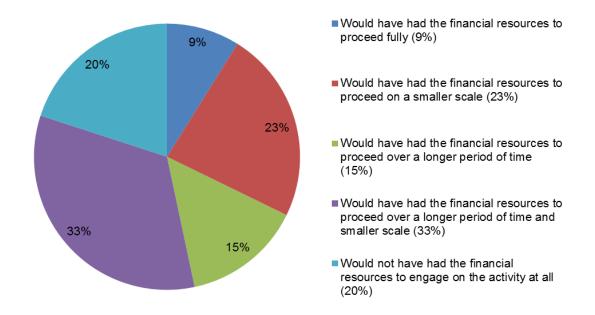
Table 6.15: Counterfactual scenarios relating to project finance, and their implications

Of the 112 supported companies, 90 (approximately 80%) included figures for jobs created as part of the project, which were used in the analysis of deadweight in section 6.8. In order to keep these findings comparable, only those enterprises were included in the analysis of substitution. The responses to the question regarding potential substitution are presented in Figure 6.11.

Approximately 9% of supported enterprises agreed that they would have had the financial resources to engage in the project fully, thus indicating potential for substitution. By comparison 23% cited that they could have completed the project but on a smaller scale, thus there may be no substitution in these cases. Approximately 15% agreed that it was possible to finance the project, but over a longer period of time. While this may have slowed down desirable project developments, it indicates potential for substitution. Some 33% of projects could have been financed on both a smaller scale

and over a longer period of time. Again, these projects may solely have been financed by the existing private share of investment in the supported project and no other private finance, thus there may have been no substitution. Finally, 20% of enterprises would not have had the finances to engage in the project at all, suggesting that in these cases, there is zero substitution and support has achieved its goal of overcoming market failure.

Fig 6.11: **Supported enterprises**' perception of financial capacity to engage in project in the absence of financial support (**n=90**)



Further analysis reveals that the projects which could have been financed fully without government financial support, are on average smaller in terms of the total volume of investment (private finance plus government support) per project and volume of financial support per investment (see Table 6.16). This is particularly apparent compared to those enterprises which would not have had the finance to carry out the project at all had support not been available. However, for projects which could have been fully financed without support, support represents a smaller share of total project investment. The level of state investment accounts for 22.5% of total project costs on average for projects which could have been financed entirely without state support. By comparison projects which could have had sufficient finance to proceed on a smaller

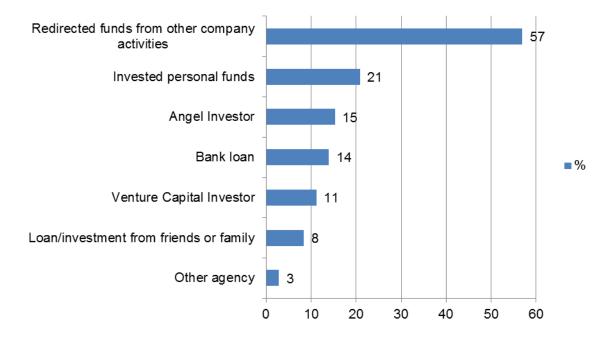
scale, used support to fund 26.6% of project costs on average. This figure increases further for those projects which would have had sufficient finance to proceed over a longer period of time, or on both a smaller scale and longer period of time, with the state contribution to these projects increasing to 34.6% and 37.4% respectively. Projects which would not have had financial resources to proceed at all relied on support for 29.5% of project costs on average. In summary, financial support made a smaller contribution to projects which could have been financed entirely by private funds.

	Total Inves	stment	Private In	Private Investment		Support		
	A. Total Investment in Projects (C. Private finance + E. Support)	B. Average Total Investment per project (=A/n)	C. Total Private Investment	D. Average Private Investment per project (=C/n)	E. Total Support	F. Average Amount of Support per project (=E/n)	G. Support as % of Total Investment (=A/E)	
	€	€	€	€	€	€	%	
Financial resources to proceed fully (n=8)	1,935,789	241,974	1,499,789	187,474	436,000	54,500	22.5	
Financial resources to proceed on a smaller scale (n=21)	10,559,174	502,818	7,754,294	369,252	2,804,880	133,566	26.6	
Financial resources to proceed over a longer period of time (n=13)	4,195,628	322,741	2,743,128	211,010	1,452,500	111,731	34.6	
Financial resources to proceed over a longer period of time and smaller scale (n=30)	8,169,417	272,314	5,115,400	170,513	3,054,017	101,801	37.4	
Would not have had the financial resources to engage on the activity at all (n=18)	10,922,000	606,778	7,700,000	427,778	3,222,000	179,000	29.5	
Total	35,782,009	1,946,624	24,812,612	275,696	10,969,397	121,882	30.7	

# Table 6.16: State investment in **supported projects** by finance availability (**n=90**)

Another important aspect to consider when examining substitution is where the alternative funds to support would come from. Those 78 enterprises which agreed that they would have had the financial resources to proceed fully or partially in the absence of intervention, were asked where they would have sourced funds had support not been available (see figure 6.12).

Fig 6.12: Sources of finance available in the absence of support (multiple responses could be selected) (**n=78**)

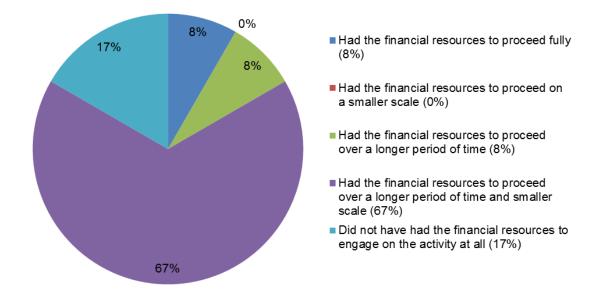


57% of the respondents agreed that they would have redirected funds from other company activities. This means that although there may have been alternative funds to use on the project, other non-supported company activities may have suffered in the absence of intervention. However, a considerable number of respondents believed that they had alternative sources to draw upon from both personal funds and external sources of finance, which suggests that private funds may have been substituted by public expenditure.

A similar set of questions was posed to rejected enterprises, instead asking what finances they had access to following their rejection for support, presented in Figure 6.13. Only 1 respondent agreed that they had sufficient finance to proceed fully following rejection of their application for support. It was worth noting that this was a

considerably smaller project than the others and generated no employment. Two respondents did not have the financial resources to proceed with the rejected project in any capacity. The remaining enterprises had the financial resources to proceed on a smaller scale and/or over a longer period of time.

Fig 6.13: **Rejected Enterprises** financial capacity to engage in project following rejection of their application for financial support (**n**=**12**)



Similar to the supported respondents, redirected funds from other company activities was the most frequently cited alternative to support, as presented in Figure 6.14. Again this suggests that being rejected for support may have interfered with other activities in other parts of the enterprise. However, where supported and rejected companies differ is in the sources of external funds. Rejected enterprises are far less likely to use private equity (such as angel investors or venture capital) as an alternative to support. As noted previously, rejected companies typically find it more difficult to raise finance and are also younger and smaller compared to supported respondents. This would typically mean that there would be fewer private finance options at their disposal, as can be seen when comparing Figure 6.12 with Figure 6.14.

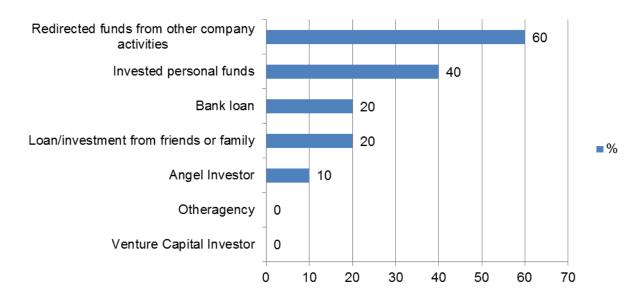


Fig 6.14: Sources of finance used in the absence of support by **rejected enterprises** (n=10)

#### 6.7 Perceptions of Additionality

As presented in Chapter 4, deadweight and additionality are the two primary measures for evaluating the impact of enterprise support. The perceptions of both concepts were gathered in the survey from both supported and rejected enterprises using a number of statements. These are presented in Table 6.17.

Rejected companies displayed a marginally higher level of agreement with statements regarding the positive impact of support than supported enterprises, however independent t-tests revealed no evidence of a statistically significant difference between the two groups. Approximately 88% of supported respondents "strongly agreed/agreed" that financial support had helped their company grow, suggesting some level of output additionality. Similarly 91% of rejected respondents "strongly agreed/agreed" that support would have helped their company grow had their applications been successful, with no evidence of a statistically significant difference between the two groups.

A second statement was also used to assess the influence of support on supported and rejected enterprises. Approximately, 85% of supported enterprises and 92% of rejected enterprises "strongly agreed/agreed" that support was necessary for their companies to

develop. These positive responses among both groups highlight the perceived importance of support.

	No of enterprises	Average Rating (1-5)	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly disagree (5)				
Financial support has helped my company grow/Would	Supported (n=112)	1.61	56%	32%	7%	4%	1%				
have helped my company grow	Rejected (n=12)	1.5	58%	33%	8%	0%	0%				
		t = 0.4	26, df = 122, p	= 0.335, one ta	ailed						
Support was necessary	Supported (n=112)	1.85	39%	46%	10%	2%	4%				
for my company to develop	Rejected (n=12)	1.66	42%	50%	8%	0%	0%				
		t = 0.6	657, df = 122, p	= 0.257, one ta	ailed						
Receiving support makes it	Supported (n=112)	2.12	23%	47%	25%	4%	1%				
easier to raise private finance	Rejected (n=12)	1.75	42%	42%	17%	0%	0%				
	t = 1.455, df = 122, p = 0.074, one tailed										

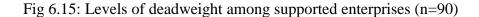
Table 6.17: Agreement with the statements regarding perceived influence of support

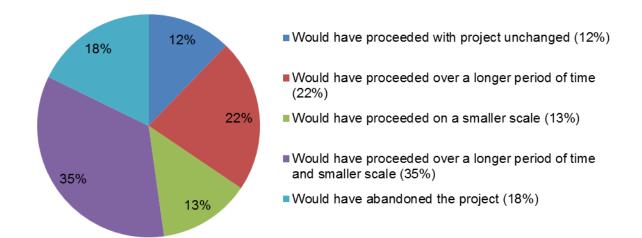
Another aspect of additionality is that of input additionality. This refers to the increased level of private input into an enterprise as a result of receiving support. As alluded to in this and previous chapters of this thesis, the use of support to leverage private funds is a key example of input additionality which was found to be present in support systems (Lenihan and Hart, 2004). Approximately, 70% of supported enterprises and 84% of rejected enterprises "strongly agreed/agreed" that support made/would have made it easier to raise private funding suggesting that there is a high level of perception of this phenomenon.

### 6.8 Deadweight

#### 6.8.1 Deadweight estimates among supported enterprises

In order to estimate deadweight, supported enterprises were asked hypothetical counterfactual questions about what would have happened to their supported activity in the absence of intervention. Of the 112 supported companies, 90 (approximately 80%) included figures for jobs created as part of the project and so these are the enterprises which have been included in this section of analysis. Approximately 12% of these enterprises agreed that they would have proceeded with the project unchanged in the absence of intervention, thus these supported projects were full deadweight. Approximately 70% fell into the partial deadweight category, agreeing that they would have proceeded with projects over a longer time and/or smaller scale. Only 18% agreed that they would have abandoned the project had support not been available, thus exhibiting zero deadweight (see Figure 6.15).





#### 6.8.2 Deadweight Job Estimates

To understand the implications of deadweight, it is important to examine it in relation to job creation and more specifically the cost of job creation. Total support issued to the 90 enterprises equalled  $\notin$ 10,969,397, while the jobs created in these projects totalled 484. This equated to a basic cost per job (state expenditure divided by number of jobs supported) of  $\notin$ 22,664.

Further analysis of each of the deadweight categories demonstrates that those companies demonstrating full deadweight, have a lower cost per job (amount of support divided by number of jobs) than those in partial or full deadweight categories (presented in Table 6.18). Projects in the full deadweight category created more jobs per project on average, than the average jobs created in all projects combined.

Projects which would have been carried out over a longer period of time (partial deadweight) received a similar average value of support to those enterprises in the full deadweight category. However, the average number of supported jobs per project was lower than those companies displaying full deadweight, thus the average cost per job was marginally higher. Projects which would have proceeded on a smaller scale without support (partial deadweight) were the smallest out of all deadweight categories in terms of average value of support, but also in the average number of jobs created per project, thus the cost per job was the highest for this category.

By comparison, projects which would have been abandoned had support not been available (zero deadweight) had a higher average number of jobs per project and had a considerably higher average value of support per project compared to full and partial deadweight projects. These findings are presented in Table 6.18.

	A. No of projects/ enterprises	B. Total Support issued (€)	C. Average support issued (€) (=B/A)	D. Total Jobs created in projects	E. Average Jobs created per project (=D/A)	F. Cost per Job to state (=B/D)
Proceed with project unchanged (Full deadweight)	11	1,225,700	111,427	76	6.91	16,128
Proceed over a longer period of time (Partial deadweight)	20	2,193,680	109,684	120	6.00	18,281
Proceed on a smaller scale (Partial deadweight)	12	1,210,955	100,913	44	3.66	27,522
Proceed over a longer period of time and smaller scale (Partial deadweight)	31	3,506,062	113,099	135	4.37	25,971
Abandon project (Zero deadweight)	16	2,833,000	177,063	109	6.81	25,991
Total	90	10,969,397	121,882	484	5.37	22,664

Table 6.18: Project measures	for supported enterprises	by deadweight category (n=90)

\* Figures in Table 6.18 rounded

Further analysis was conducted on these results to estimate the number of these jobs which may be deadweight, using a similar formula to that used by Lenihan (1999). To establish the level of deadweight/additionality, Lenihan (1999) employed the methods outlined in Table 6.19. She measured employment growth of supported enterprises over a two year period. Then she applied the following assumptions to employment growth according to how respondents replied to the question of deadweight.

Level of Deadweight	Effect	Assumption
Full deadweight Partial Deadweight	In the absence of intervention the project would have been carried out unchanged In the absence of	All jobs would have occurred without intervention, thus 100% of jobs are deadweight/0% are additional The percentage of the project funded by the
(reduced scale)	intervention the project would have been carried out on a smaller scale	agency would not have occurred. For example, if an El grant accounted for 40% of the project costs, only 60% of the project would have been completed. Thus 60% of the jobs are deadweight and 40% are additional.
Partial Deadweight (over a longer time frame)	In the absence of intervention the project would have been carried out over a longer period of time	In Lenihan's (1999) study, Jobs were assumed to be created at the beginning of a two year period. Using an example of a project that was delayed by 6 months (25% of the period), as a result of assistance being unavailable. 75% of the jobs would have been created without assistance (deadweight) and 25% of jobs were additional.
Partial Deadweight (over a longer time frame and reduced scale)	In the absence of intervention the project would have been carried out on a smaller scale and a longer period of time	Lenihan (1999) did not measure this possibility. Employing both of her methods above and taking the example of a project being 40% funded by the agency and delayed by 6 months (25%) in the absence of intervention. Thus 60% of the project would have gone ahead (the privately funded portion), for only 75% of the period, thus 45% (75% of 60%) of the project is deadweight.
Zero deadweight	In the absence of intervention the Project would have been completely abandoned	100% of jobs were dependent on support, thus 100% additionality and 0% deadweight.

Table 6.19: Assumptions used to calculate deadweight jobs

Source: Adapted from Lenihan (1999)

This research employed different employment measurements to Lenihan (1999). Rather than the total jobs growth of each company, this research measured the specific number of jobs created in each supported project. It also used a different time period, allowing that EI give up to 3 years (36 months) for a supported company to achieve their project goals. These differences were factored into the following calculations when deriving a comparable deadweight estimate.

When Lenihan's (1999) methodology is applied to the job creation figures across the deadweight categories it estimates that 39.39% of jobs created are deadweight, and the remaining jobs additional (presented in Table 6.20). This means that approximately 190 of the 484 jobs would have been created without intervention. When this in turn is applied to the amount of support provided to these projects, the cost per job (volume of support divided by additional jobs) increases from  $\notin 22,664$  to  $\notin 37,375$ .

	A. Total Jobs created in supported projects	B. Number of jobs that would have been created in the absence of support (Deadweight)	C. Number of jobs that were dependent on support to be created (Additionality)	D. Percentage of total supported jobs which are deadweight (=D/A)
Proceed with project unchanged	76	76.00	0.00	100.00%
Proceed over a longer period of time	120	56.63	63.36	47.19%
Proceed on a smaller scale	44	24.37	19.63	55.38%
Proceed over a longer period of time and smaller scale	135	33.50	101.50	24.81%
Abandon project	109	0.00	109.00	0.00%
Total	484	190.51	293.49	39.39%

Table 6.20: Deadweight job estimates for supported enterprises by deadweight category, based on adaptation of Lenihan's (1999) methodology (n=90)

# 6.8.3 Factors influencing project changes or abandonment in the absence of intervention

In order to develop a greater understanding of deadweight and additionality, enterprises which demonstrated either partial or zero deadweight were presented with a range of possible reasons why they might have changed the scale, changed the timing or abandoned the project had support not been available (see Table 6.21).

Lack of finance was the most frequent option selected for changes to scale and/or timing, or abandonment of the project, with 93% of respondents either strongly agreeing or agreeing to this option. Other than finance a number of options were included in the survey which tested the potential influence of support on behaviour (behavioural additionality). Responses to these other options were considerably lower. Only 31% "strongly agreed/agreed" that they would have abandoned/changed the project owing to too much risk, while 33% "strongly agreed/agreed" that it would have been due to uncertainty about commercial feasibility. These findings suggest that for only a minority of enterprises, support offers confidence and validation to enterprises seeking to expand.

	No of	Average	Strongly	Agree	Neither	Disagree	Strongly
	firms	Rating	Agree (1)	(2)	Agree nor	(4)	disagree
		(1-5)			Disagree (3)		(5)
Lack of finance	96	1.55	54%	39%	4%	2%	1%
Too much risk associated with activity	96	3.02	9%	22%	32%	29%	7%
Uncertainty of commercial feasibility	96	3.16	7%	26%	22%	30%	15%
Uncertainty of technical feasibility	96	3.39	6%	23%	23%	29%	19%
Lack of management/marketing skills	96	3.41	5%	20%	23%	34%	18%
Lack of technical skills	96	3.43	8%	18%	23%	31%	20%
Loss of confidence in the activity	96	3.66	1%	10%	32%	35%	21%

Table 6.21: Supported companies reasons for changing projects in the absence of support

#### 6.8.4 Comparison of full deadweight and partial/zero deadweight enterprises

In order to better understand the conditions under which deadweight occurs, the sample of supported companies was split into two groups; those that exhibit full deadweight and those that exhibit either partial or zero deadweight. The groups were split in this way for a number of reasons. Firstly, as presented earlier in this chapter (Section 6.8.1), full deadweight projects exhibit different characteristics in terms of cost per job, when compared to partial and zero deadweight projects. Secondly, partial and zero deadweight projects create some level of additionality, while full deadweight projects create zero additionality. Finally, as will be presented in Chapter 8, both partial and zero deadweight projects can be interpreted as the successful implementation of support by the enterprise agencies.

In order to assess the differences between the two groups, independent t-tests were conducted on enterprise features, support features and respondent perceptions. As displayed in Table 6.22, enterprises exhibiting full deadweight are on average older and larger than those enterprises exhibiting partial or zero deadweight. However, the independent t-tests did not reveal any statistically significant differences between the two groups. Characteristics of support were also measured and are also presented in Table 6.22. The most prominent visible difference between the two groups was total project cost (the value of support combined with the value of the private investment). However across all of these characteristics, no significant difference was found between the two groups.

	Full	Partial or Zero	Т	df	р
	Deadweight	Deadweight			(one-
	(n=11)	(n=79)			tailed)
Total Employment at time of	58.55	32.14	1.185	11.014	0.1305
survey*					
Age at time of survey	20.55	15.28	1.171	88	0.1225
Volume of support received (€)	111,427	123,338	-0.267	88	0.395
State share of project costs (%)	46.27	48.01	-0.244	88	0.404
Total project cost (€)*	640,017	363,820	0.607	10.394	0.2785
Number of jobs created	6.91	5.16	0.842	88	0.201
Supported jobs as a percentage of	53.64	47.46	0.21	88	0.417
total company employment					
Total project cost per job*	117,338	70,863	0.878	10.391	0.2
Amount of support per job	20,617	28,444	-1.078	88	0.142

Table 6.22: Comparison between enterprises showing full and partial/zero deadweight

\* Levene's P < 0.05 therefore equal variances not assumed

Despite there being no evidence of statistically significant differences between the two groups in terms of enterprise or support features, there were considerable differences in their perceptions. Independent t-tests were conducted between the two groups based on the mean ratings of Likert scale responses to statements. The closer the mean rating was to 1, the more likely the group was to "strongly agree/agree" with the statement. The statements where there was a significant difference in perceptions are highlighted in bold print in Table 6.23.

Those enterprises which exhibited full deadweight were more likely to agree that the application process for financial support was too complex and that the application process for financial support is too intrusive. However, those enterprises who perceived full deadweight were also less likely to have perceived market failure, demonstrating lower levels of agreement with the statements "my company has had difficulty raising finance in the past" and "raising the necessary finance to match support offered by state agencies is difficult". Furthermore full deadweight enterprises were less likely to perceive benefits of support, demonstrating lower levels of agreement with statements relating to support helping company growth, development and support making it easier to raise external finance. Interestingly, full deadweight enterprises were much less likely

to agree that they would apply for support in the future. Overall, those enterprises which perceived full deadweight were more likely to have a negative perception of supports.

	Full	Partial or Zero			
	Deadweight	Deadweight			
	(n=11)	(n=79)			
	Mean Rating <sup>x</sup>	Mean Rating <sup>x</sup>	Т	df	р
					(one-
					tailed)
The application process for	2.09	2.72	-1.716	88	0.0450
financial support is too complex					
The application process for	2.55	3.32	-2.485	88	0.0075
financial support is too intrusive					
Finding suitable financial supports for	2.18	2.27	-0.266	88	0.3955
my company's activities is difficult					
The support is too restrictive as to	2.45	2.97	-1.165	11.2	0.1340
what activities it can be spent on*					
My company has had difficulty	3.55	2.89	1.795	88	0.0380
raising finance in the past					
Raising the necessary finance to	2.82	2.30	1.716	88	0.0450
match support offered by state					
agencies is difficult					
Government funding means my	2.82	2.18	1.643	11.447	0.0635
company needs less private					
investment*					
Financial support has helped my	2.55	1.38	4.046	10.943	0.0010
company grow*					
Support was necessary for my	2.82	1.65	2.738	10.553	0.0100
company to develop*					
Receiving support makes it easier	2.45	2.00	1.729	88	0.0435
to raise private finance					
I plan to apply for state assistance	3.09	1.90	3.835	88	0.0000
in the future					

Table 6.23: Comparison between enterprises showing full and partial/zero deadweight

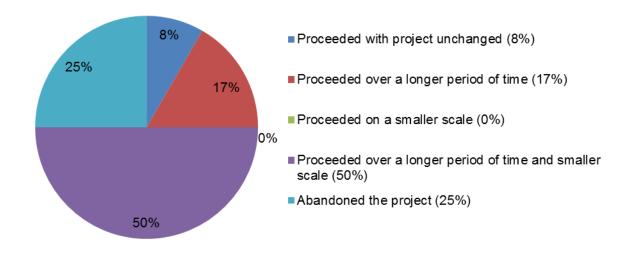
<sup>x</sup> Mean rating based on responses on scale 1 (strongly agree) to 5 (strongly disagree)

\* Levene's P < 0.05 therefore equal variances not assumed

#### 6.8.5 Deadweight measures for Rejected Enterprises

Similar statements were put to the rejected enterprises in the sample (n=12) as were used for supported enterprises when assessing the level of deadweight. Rejected enterprises were asked what they did with their project following their rejection for support. Only 8% of projects proceeded unchanged, 67% were reduced in scale and/or delayed, while 25% were abandoned (see Figure 6.16).

Fig 6.16: Status of enterprises' projects following rejection of application for support (n=12)



These projects combined had planned to create 105 jobs before they were rejected for support, as presented in Table 6.24. The cost per the jobs planned for each of the supported projects demonstrated considerable variance. In total the average cost was  $\in$ 12,038 per job, considerably lower than that of supported projects (see Table 6.18). However the cost per job for companies in the zero deadweight category was  $\in$ 84,000 which were considerably higher than in other deadweight categories and for supported enterprises. This may explain why some of these projects were rejected for support, in that the cost per job was excessive by EI and CEB standards.

	A. No of Projects/ Enterprises	B. Total value of support sought (€)	C. Average Value of Support Sought (€) (=B/A)	D. Total Jobs Planned in Application	E. Average Jobs planned in application (=D/A)	F. Potential Cost Per Job to state had support been approved (€) (=B/D)
Proceeded with project unchanged	1	2,000	2,000	0	0	N/A
Proceeded over a longer period of time	0	0	0	0	0	0
Proceeded on a smaller scale	2	170,000	85,000	6	3	28,333
Proceeded over a longer period of time and smaller scale	6	672,000	96,000	94	13.4	7,149
Abandoned project	3	420,000	210,000	5	2.5	84,000
Total	12	1,264,000	105,333	105	8.75	12,038

#### Table 6.24: Planned in investment in rejected applications (n=12)

In the case of rejected enterprises it is possible to view the number of jobs created in the absence of support (thus deadweight jobs), rather than solely estimating them. Out of the 105 jobs planned by the rejected companies, only 8 of these jobs were actually realised, as presented in Table 6.25. When these "deadweight" jobs are excluded from the number of planned jobs, the cost per job which would have been borne by the state had these projects been supported, increases from  $\in 12,038$  to  $\in 13,030$ .

	Jobs Planned	Jobs Created	% Deadweight Jobs
Proceed with project unchanged	0	0	0
Proceed over a longer period of time	0	0	0
Proceed on a smaller scale	6	2	33
Proceed over a longer period of time and smaller scale	94	6	6
Abandon project	5	0	0
Total	105	8	7.6

Table 6.25: Planned	jobs and	jobs created	in rejected	applicants f	for support (n=12)

In terms of the relationship to additionality, the overwhelming reason for abandoning or altering the project in the absence of support was due to finance, as presented in Table 6.26. Only a few respondents agree that other features, such as lack of skills, too much risk or lack of feasibility, contributed to the project being abandoned.

Table 6.26: Rejected companies reasons for changing projects in the absence of support (n=11)

	Average Rating (1-5)	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly disagree (5)
Lack of finance	1.36	64%	36%	0%	0%	0%
Lack of management/marketing skills	3.63	0%	18%	27%	27%	27%
Lack of technical skills	3.73	0%	27%	18%	9%	45%
Too much risk associated with activity	4.00	0%	9%	9%	55%	27%
Uncertainty of commercial feasibility	4.09	0%	9%	18%	27%	45%
Uncertainty of technical feasibility	4.09	0%	9%	27%	9%	55%
Loss of confidence in the activity	4.18	0%	0%	18%	45%	36%

#### 6.9 Summary

This chapter presented the findings for the survey phase of this research. In total there were 160 usable responses, which were split into three distinct groups; those that had applied for support and were accepted (n=112), those that had applied for support and were rejected (n=12), and those enterprises which had never applied for support (n=36).

Enterprises which had applied for support were found on average to be larger than enterprises which had never applied for support and were also more likely to have previously been located in an incubator. The measurement of number of employees in the enterprises had been taken at the time of the survey, meaning that the supported enterprises had experienced any potential effects of support. Given the similarities between the groups within the sample, they were deemed suitable for comparison to one another for evaluating the features of the Irish enterprise support system. Similarly, enterprises which had been accepted for support were more likely to be larger than those which had been rejected for support.

This chapter assessed differences between the groups based on their responses to attitudinal statements, in order to test for the various inefficiencies based in the literature. Enterprises which were rejected for support were more likely to experience difficulty in finding suitable supports for their company than supported enterprises and more likely to perceive support to be too restrictive with regard to the activities on which it could be spent. Non-applicants also found support restrictive and demonstrated a lack of awareness of suitable support availability for their enterprises. Rejected enterprises were more likely to have perceived market failure, in terms of difficulty raising finance, relative to their supported counterparts. However, both groups agreed that raising the matching finance required to obtain support, was difficult. A minority of non-applicants perceived that they had sufficient finance to not require support, while few perceived that raising matching finance would have been difficult. The analysis found that there was evidence that private finance was being substituted by public finance, or that there was capacity to do so, for both supported and rejected enterprises. However, both supported and rejected enterprises perceived benefits of support in terms of its ability to assist their enterprise in growing and in terms of raising finance.

Deadweight is the principal concept being tested by this thesis, and there was evidence of the presence of deadweight in the Irish enterprise support system. The findings demonstrated that the majority of supported enterprises exhibited either full or partial deadweight. Deadweight estimates were applied to figures for job creation among supported enterprises, and demonstrates that deadweight causes an increase in the cost per job created by the state. There were no significant differences found between enterprises where full deadweight was perceived and other supported enterprises based on characteristics of support and of the enterprise. However, there were significant differences found between those who perceived full deadweight and other supported respondents, based on their perceptions of other aspects of support. In the case of partial or zero deadweight, finance was perceived to be the primary cause for project changes had support not been available. **Chapter 7 – Enterprise Owner/Manager Perspectives** 

## 7.1 Introduction

This chapter presents the findings from the second phase of primary research. This phase involved conducting interviews with 11 of the survey respondents identified from phase one. While previous studies provide a measure or estimate of deadweight, they only provide a limited understanding of how or why it occurs. The purpose of these interviews was to probe the respondents' answers to the questionnaire in greater depth and also to garner their perceptions of supports available for their enterprises. Interviews were conducted with three groups; 1) those who applied for financial support and were rejected and 3) those who did not apply for financial support.

This chapter begins with a profile of the interviewees. This is followed by an examination of their motivations for applying or not applying for support. The interviewees' experiences of the application process for support and their interaction with EI and/or the CEBs are then presented. Substitution is then assessed to understand if funding would have been available to the enterprises, as an alternative to support. Interviewees' perceptions of the suitability of Irish supports are then presented. This is followed by a presentation of the findings concerning deadweight, and supported interviewees' perceptions on what would have happened in the absence of support availability and rejected enterprises responses on what the enterprise did when support was not available to them. Finally their perceptions of how support most impacted their enterprises are examined.

## **7.2 Profile of interviewees**

Eleven respondents from the survey phase of this research agreed to be interviewed for this study. The interviewees were promised anonymity, in order to encourage them to respond to questions honestly. There were three groups of interviewees:

 Five of these were enterprises that had applied and been accepted for support. These are identified by labels SUP1 to SUP5.

- A further three enterprises applied for support and had their applications rejected by the agency that they applied to. These interviewees are labelled REJ1 to REJ3.
- 3. Finally, three of the interviewed enterprises did not apply for support. These are labelled NONAP1 to NONAP3.

	Sector	Position of Interviewee	Employee numbers (At time of Questionnaire)	Age of Enterprise (Years, At time of Questionnaire)	Location (Region)	Agency Applied to	Year in which funding was applied for
SUP1	Manufacturing (Food)	Financial Director	153	90	South	EI	2010
SUP2	Software and IT	Managing Director/CEO	9	10	Dublin	EI	2011
SUP3	Manufacturing (Plastics)	Managing Director/CEO	30	29	Dublin	EI	2011
SUP4	Life Sciences	Managing Director/CEO	4	4	Dublin	EI	2011
SUP5	Life Sciences	Managing Director/CEO	3	5	South	CEB	2009
REJ1	Software and IT	Managing Director/CEO	5	14	Mid-West	EI	2008
REJ2	Software and IT	Managing Director/CEO	3	4	Dublin	EI	2011
REJ3	Software and IT	Managing Director/CEO	38	9	Dublin	EI	2010
NONAP1	Electronics	Managing Director/CEO	28	34	Dublin	N/A	N/A
NONAP2	Software and IT	Managing Director/CEO	5	8	South	N/A	N/A
NONAP3	Life Sciences	Production Manager	4	7	West	N/A	N/A

Table 7.1: Profile of Interviewees' enterprises

The interviewees were drawn from a range of sectors, locations, enterprise sizes (in terms of numbers employed) and ages. All except two of the interviewees either described themselves as CEOs or Managing Directors. The remaining two interviewees were in senior positions and it was confirmed in the interviews that they had been in contact with the enterprise agencies and had knowledge of the enterprises' decisions with respect to applications for support. All of the interviewees were the same people

who had previously completed the questionnaire. Software and IT services represented the largest number of interviewees, with five operating in this sector. All of the enterprises that were rejected for support were within this sector. Seven of the enterprises were in the micro enterprise classification (by numbers employed), three were small enterprises, while one was a medium enterprise. Seven of these enterprises were located in Dublin. These figures are broadly in line with the profile of survey respondents. Only one interview was conducted with a CEB client due to the low number of respondents who had received financial support from a CEB (n=11). Similarly, due to a lower number of responses from rejected (n=12) and non-applicant enterprises (n=36), there were only three interviewees in each category.

#### 7.2.1 Supported Enterprise Profiles

SUP1 applied for financial support in 2010 to support expansion because they had to increase production capacity to meet growth in sales. The support package that they received was for capital expansion of equipment and buildings, training and key manager hire. The rationale cited for their application for support was that it would enable them to increase the pace at which they could expand, compared to solely relying on private funding. In addition to that round of support mentioned in the questionnaire, the enterprise had also received previous additional rounds of support for R&D projects and also soft supports. The interviewee also believed that EI was a good sounding board for ideas, particularly for R&D projects. SUP1 also stated that the funding was less expensive than private finance, but believed that the enterprise was justified in seeking state funding.

"Financial Support is a low cost form of finance but, and I don't want this to sound like we feel entitled because we don't. But we pay a lot of tax in Ireland and we generate a lot of wealth... the wages paid by the company every week are quite substantial and that is fuelling a greater economy than just our enterprise" (SUP1)

SUP2 applied for support in 2011. While the company had been in existence since 2004, it had not taken on its first employee until 2007. When it applied for support it was still loss making but seeking to scale up. SUP2 explained that support was applied

for because it enabled the enterprise to get the project completed more quickly. The purpose of the support was to finance the development of a technology platform to grow the enterprise. SUP2 also stated that other sources of finance were not available to the enterprise.

SUP3 had conducted a number of R&D projects between 2006 and 2010. In total they had received two R&D grants and a feasibility grant from EI. The second R&D project involved collaborating with a Dutch university, which was a specialist in the area in which the enterprise's latest product was being developed. SUP3 stated that the main motive for applying for support was that the project was a major expenditure and they wanted financial assistance to offset some of this.

SUP4 was a spinout from a university based research centre focused on developing cancer treatments. The research centre was changing their focus to new research areas, but perceived potential in the research which formed the basis for the enterprise. To date the enterprise has solely been focused on R&D and developing their research into treatments. The founders of the enterprise perceived there to be significant difficulty in founding life sciences enterprises due to lack of finance available and due to a perceived focus by both support agencies and financiers on sectors such as IT.

SUP5 was a micro enterprise which supplied and fitted prosthetics to a niche market. Their customer base was primarily located within their own county and they were not trading internationally. They applied for an employment grant from the City and County Enterprise Board to hire an additional employee. This employee was used to do office management and customer care to allow the two existing employees to focus on the specialist work that they did in fitting prosthetics.

#### 7.2.2 Rejected Enterprise Profiles

REJ1 had been in business for eight years prior to applying for support. During that time they had developed accounting software. They were applying for support in order to develop a cloud version of their software. This meant developing software from "scratch" and taking on software developers in order to achieve this. REJ1 had five staff at the time of application, but were looking to outsource some of the development with the aim of growing internal staff numbers to 10 within five years. While REJ1 completed the questionnaire to indicate they had been rejected for support, they actually dropped out of the application process for support when they perceived that they would not be likely to be successful in their application, and when the opportunity to get support from the LEADER Programme<sup>18</sup> presented itself.

REJ2 developed wireless technology to allow for streaming on mobile devices for sea ferries and wished to expand it to cover airlines. At the time of their application (2011) they had completed market research and test marketed the concept. They had also developed the product and had it installed on a major sea ferry route from Ireland to the UK. Finally, according to the interviewee, they had endorsement from "industry leaders." He applied for funding to support the roll out of this product to a wider market.

REJ3 had applied for support in 2011. However, the year prior to that, it had been acquired by a larger enterprise. REJ3 found that when she applied for support they were rejected due to the agency taking into account the parent company in the assessment of the application. This information was only revealed during the interview. In the questionnaire the respondent had completed the questionnaire to indicate that they were an independent, wholly Irish owned enterprise. Had they completed the questionnaire to indicate that they were a subsidiary of a multinational, they would have been automatically excluded from the study at the questionnaire phase. However, due to the relevance of the interviewee's perceptions they have been left in the study.

## 7.2.3 Non-Applicant Enterprise Profiles

The first of the non-applicants, NONAP1, explained that the only expansion they had completed since 2007 was to increase their customer base. He stated that the company, which operated in the electronics sector, had been in decline for the first two years of that period and had been in growth since. They had not taken on any new employees but they had retained all of their existing staff. NONAP1 explained that they had not had

<sup>&</sup>lt;sup>18</sup> Irish rural development programme

difficulty raising finance as they had never sought external finance, instead relying on internal finance.

NONAP2 was a software development enterprise primarily focused on bespoke database products. The client base of the enterprise was primarily located outside of Ireland. While the interviewee considered applying for support, he did not proceed with the application, choosing to grow the business organically and focus on clients who generated immediate revenue, rather than using support to invest in R&D.

NONAP3 is a medical devices company. The interviewee stated that 75% of the enterprise's activities are based on R&D and they are also involved in manufacturing. It was only in the year prior to the interview that the enterprise was demonstrating growth in turnover, which in turn allowed the enterprise to increase employee numbers and manufacturing capacity. The enterprise is an exporter focused on European markets.

In summary, there was a wide range of enterprises in the sample, in terms of sector, size, age and rationale for applying for support or not-applying for support.

# 7.3 Applications for Support/Agency Interactions

This section examines the applications which the supported and rejected enterprises made to EI or the CEBs. Firstly it presents what value and type of support the interviewees applied for. Secondly it examines their perceptions of the application process. Finally, it examines if the interviewees perceived any benefits from going through the application process and any influence that going through the application process had on the enterprises' plans.

In terms of the application process only one out of the five supported enterprises cited any benefit from going through the application process. The application process was perceived by the majority of interviewees as being time consuming, burdensome and invasive. However, two of the interviewees reported that repeat applications became easier, simply because the owner/managers understood the system and the requirements of the agencies better

	Agency	Amount	Number of Proposed	Number of Jobs
		received/applied for	Jobs*	Created
		(€)		
SUP1	EI	151,000	N/A	8
SUP2	EI	60,000	N/A	1
SUP3	EI	27,000	N/A	1
SUP4	EI	250,000	N/A	3
SUP5	CEB	7,500	N/A	1
REJ1	EI	200,000	10	N/A
REJ2	EI	150,000	10	N/A
REJ3	EI	2,000	0	N/A
NONAP1	N/A	N/A	N/A	N/A
NONAP2	N/A	N/A	N/A	N/A
NONAP3	N/A	N/A	N/A	N/A

Table 7.2: Details of support received/applied for by Interviewees

\* The number of proposed jobs was not measured for supported enterprises as the number of jobs created was deemed as a more appropriate metric

SUP1's enterprise had made numerous applications for support. The last round of support up to the year ending 2011 was for  $\notin 151,000$  to support 8 jobs. While the interviewee found the applications for support very time consuming, the experience of having gone through the application process on previous occasions made the process much easier. Furthermore, because they had a track record with EI, the agency better understood the business and this was perceived to make the application process easier. However, SUP1 stated:

"We have always found that you have to absolutely state your case and you know what your current position is, what you are going to do with the funding, where it is going to bring you and what your projections are for the years ahead. It is not by any means easy, but you don't just go up to them and say give me money" (SUP1)

However, SUP1 did not perceive the application itself to have an influence on the project or the enterprise and described the application forms as a "*nightmare*". The interviewee stated that the types of information that was sought in the application, such

as projections, staff numbers and levels, turnover and projections, were all aspects which they would have examined prior to applying for support.

SUP2 received €60,000 in funding from EI for a project which supported one new job. SUP2 explained that before they applied they had developed a "programme of work." It was only after this was developed that they approached EI. Doing this meant they had a good foundation for completing an application. Furthermore, he stated that EI had been aware of the enterprise before they inquired about support. He stated that while they were helpful, they did ask "tough" questions.

SUP2 stated that there were no changes to the overall project as a result of going through the application process. Describing the application process, he explained:

"You need to essentially walk them through your company business plan. They may have some observations on it, but they wouldn't try to influence it. If they didn't like it they probably wouldn't give you the money." (SUP2)

However, he stated that going through the application process did influence the "resource mix." The application included the business objectives, any potential collaborations and the budget. He stated that going through this was useful in clarifying the enterprise's objectives, particularly with respect to resource allocation.

SUP3 received €27,000 to engage in an R&D collaboration with an overseas university and support one new job within the enterprise. He stated that, on occasions, they had elected not to apply for grants in the past due to the amount of paper work involved in the application process. He stated that going through the application process did not assist with the development of the business plan or get the enterprise to re-evaluate its approach to the project:

"They (EI) don't get involved in the process. You have to make a case for your own application and generally when you submit that they will never give you what you are looking for anyway... For example, as regards this project, we are getting  $\notin$ 27,000, but we actually looked for approximately  $\notin$ 50,000... There tends to be what I would call a Civil Service attitude." SUP3 In terms of repeat applications, Similar to SUP1, SUP3 stated that while it does not get any easier to secure support, it is easier to apply for support by having knowledge of the system.

SUP4 applied for and drew down on  $\notin$ 250,000 funding at start-up stage. He stated that the application process did encourage him to think about the business plan and focus on strengths and weaknesses of the business. He did not perceive the application process to be too onerous and while there was a lot of work involved he perceived the process to be beneficial for both the enterprise and the agency.

In terms of the information required, SUP5 had similar perceptions regarding the CEB application to those of EI clients, SUP1 and SUP3. SUP5 received an employment grant for  $\notin$ 7,500 to take on an additional employee. She stated that while the CEB staff were very helpful and encouraging, the application forms themselves were very "invasive" and time consuming writing a new business plan. Having already had a business plan, they did not find that going through the application process was constructive or that it encouraged them to re-think the business.

None of the three rejected enterprises perceived any benefit from going through the application process for support. REJ1 applied for  $\notin$ 200,000 in financial assistance to support 10 new jobs. She completed the initial application which she described as very complicated. On submission of this application they were continually asked for more information from EI. She perceived this to be disinterest on the part of EI and so dropped out of the application process.

"We would fill out forms, and they (EI) would come back with a further round of instructions that would be two weeks work to deal with. We seemed to be going around in a circle with this. It felt like it was never going to end." (REJ1)

Initially REJ1 was corresponding with a Development Advisor based in Dublin who was specialising in financial software. Later they were assigned to a different Development Advisor who contacted them to confirm that the enterprise was no longer applying for support and to confirm that they were not seeking to trade outside of Ireland. REJ1 explained that this was not the case:

"We had spent a lot of time developing a business plan, but our business plan was not in the Enterprise Ireland business plan format, so we had to start from scratch and do it in their business plan template... I think it was a complete waste of time" (REJ1)

REJ2 applied for €150,000 in funding to support 10 new jobs. He was told by EI that they did not have a viable business to be supported. Furthermore, he explained that EI told them that they did not have "credibility" within the sector. This was in spite of having awards, secured clients and having a chairman on the board with 30 years' experience in the media sector and a senior management team with experience in finance, large FMCG groups and wireless technology. REJ2 explained that he still had a copy of the business plan that they used for their EI application.

"I can't find much fault with our business plan. They (EI) would always say that our projections were too optimistic. Projections being too optimistic shouldn't be a reason not to support something. Technologically, if there is a market for something it should have just been a case of refreshing the projections... Outside of Ireland we benchmarked our projections against parallel industries so we always thought our proposals were robust. Perhaps our plan was aggressive but everything in Ireland was far too conservative... The application process absorbed so much of our time and energy and I would rather put it behind me" (REJ2)

REJ2 further explained that there was no feedback from going through the application process. He stated that he would accept it that EI would not approve his application for support but was disappointed that they would not provide feedback or input into the business plan.

As an alternative to EI, REJ2 met representatives from Invest Northern Ireland (INI)<sup>19</sup> at an event in Belfast. They offered to support the enterprise if it moved to Northern Ireland. REJ2 explained that after two subsequent meetings, spread out over four weeks, they had secured funding from INI and were able to establish their business in Northern Ireland.

<sup>&</sup>lt;sup>19</sup> Invest Northern Ireland are the agency charged with supporting both indigenous enterprise and inward foreign direct investment for Northern Ireland.

REJ3 applied for  $\notin 2,000$  to attend a trade event. As stated REJ3 had their application for financial support rejected. When asked if she perceived the decision to reject her application was fair, she agreed that it was. She did not perceive any benefit from going through the application process.

The final category (the non-applicant enterprises) expressed similar perceptions regarding the application process. While these enterprises did not apply for support all three did have interactions with EI and thus could provide perceptions on this aspect of support. All of the non-applicant enterprises were discouraged from applying as they perceived the effort required to apply for support to be excessive. NONAP1 explained that they had not applied for support as it was too difficult to get. He further explained that it ties up resources when applying for funding, specifically referring to EI. NONAP1 stated that they did have contact with EI as one of their spin-off companies was a "flagship" company for the agency. He explained that the enterprise has always funded itself internally and also that they do a lot of business in South Africa. NONAP1 perceived EI to be unresponsive, with exception of them asking for large sums of this type of business development, the enterprise found that they could get private companies to do research into companies and engage in international markets for lesser cost than what EI expected. As stated by NONAP1:

"We had quite a fractious relationship with them (EI) because they seemed to take more from us in energy and time than they actually gave back to us. We have not engaged with them in the last three or four years at all." (NONAP1)

NONAP1 did not put in a formal application for support but did make initial inquiries. They wanted to secure support to take on additional staff to focus on product development, so that existing employees could focus on market development.

NONAP2 explained that they did not go beyond an initial enquiry. He perceived that there was too much bureaucracy in the application at all stages and also in the drawing down of the support. He further stated that if they were a larger company seeking a larger investment that they may have been better able to cope with the requirements of applying for EI support.

"The time that had to be invested in satisfying the grant criteria... we copped early on that it was going to be significant and would devalue the net worth of the grant. I can't put an exact figure on it, but say we got  $\notin$ 40,000 from EI, the opportunity cost might have been  $\notin$ 15,000 to  $\notin$ 20,000 in directors time going in to satisfy the application. It just wasn't worth it." (NONAP2)

At a later date, outside of the time span covered by this study, NONAP2 successfully applied for support through the CEB to hire a sales representative. By comparison he stated that the process was a lot faster and a lot simpler, albeit for a lesser amount of funding.

NONAP3 had approached EI shortly after the enterprise had started up but had perceived disinterest from the agency due to the small scale of the enterprise. At later stages the enterprise had further interaction with the agency but did not put in an application as they perceived applying not to be worth it due to the amount of paperwork required. In the year prior to the interview they had received a small amount of funding to attend a trade show, for which 50% of the cost was financed by the agency.

In summary, the majority of the interviewees perceived the application process to be burdensome. Interestingly, only one out of the five supported enterprises perceived some benefit from going through the application process in terms of using the process to develop their business plans. In contrast, the remaining four supported enterprises disagreed and perceived the process to be too onerous. Similarly, the rejected enterprises did not perceive any benefit from going through the application process, while two of them perceived it to be too burdensome. It was the burdensome nature of the application process that also discouraged the non-applicant enterprises from applying.

# 7.4 Substitution

This section documents the alternatives to financial support which the supported enterprises would have used had support been rejected. In the case of rejected enterprises it examines the alternatives that were used to engage in the projects for which support was applied. Finally it examines the sources of finance which were employed by the non-applicant enterprises.

In the questionnaire all of the supported respondents who went on to be interviewed agreed that they would have had access to alternative finances to support, to proceed with the supported project but over a longer period of time. However, through probing these responses it emerged that one of these enterprises would have had sufficient finances to proceed without support, while two would not have had the finance to proceed with support. All of those enterprises which would have had alternative finance would have used internal enterprise finances to fund the projects had support not been available. The findings related to availability of alternative finances are summarised overleaf in Table 7.3. The first column highlights the amount of project finance that the supported enterprises perceived to exist had support not been available, and the amount of project finance that was available to enterprises rejected for support. The remaining columns present the sources of finance that were available (where applicable) in the order that they were mentioned (as opposed to being ordered in importance).

	Cufficiency of finance	in the charmon of	Course 4 wood in	Course O wood	Course 2 wood
	Sufficiency of finance in the absence of support*		Source 1 used in	Source 2 used	Source 3 used
			the absence of	in the absence	in the absence
		Interview	support	of support	of support
	Survey Response	Response			
		(where different)			
SUP1	Would have had		Redirected funds		
	finances to proceed		from other		
	over a longer period of		company activities		
	time				
SUP2	Would have had		Redirected funds		
	finances to proceed		from other		
	over a longer period of		company activities		
	time				
SUP3	Would have had	Would have had	Redirected funds		
0013	finances to proceed	sufficient finances	from other		
	over a longer period of	to proceed*	company activities		
		to proceed	company activities		
	time		De d'as sta d'un de		
SUP4	Would have had	Would have had	Redirected funds		
	finances to proceed	insufficient	from other		
	over a longer period of	finances to	company activities		
	time	procced*			
SUP5	Would have had	Insufficient			
	finances to proceed	finances to			
	over a longer period of	proceed*			
	time				
REJ1	Had finances to		Personal Funds	Loan/investment	Other state
	proceed over a longer			from friends or	support
	period of time			family	
REJ2	Had finances to		Redirected funds	Bank Loan	Other state
	proceed over a longer		from other		support
	period of time		company activities		
REJ3	Had finances to carry		Redirected funds		
	out the project fully		from other		
			company activities		
NONAP1	N/A		N/A	N/A	N/A
NONAP2	N/A		N/A	N/A	N/A
NONAP3	N/A		N/A	N/A	N/A

Table 7.3: Availability	y of alternative fina	ances to interviewees	s in the absence of support

\*In the interviews, some respondents changed the answers they had provided in the survey

In the questionnaire all five supported interviewees had agreed that they would have had the finances to proceed, but over a longer period of time. However, when questioned on this issue in the interviews three of these respondents changed their mind when considering the implications of the question.

With regard to the reassessed responses of the five supported enterprises, the four who would have had the access to finance had support not been available would have used internal finances, as opposed to seeking finance from external, private financiers (as presented in Table 7.3). Furthermore, three of these interviewees stated they would not have been able to secure external finance.

SUP1 stated that the enterprise would have used internal funds for the supported projects had support not been available. However, using these funds would have reduced the enterprise's working capital and affected their cash flow, thus the enterprise would not have been able to grow as quickly. When asked if external finance could have been used, SUP1 agreed that the enterprise could have accessed bank finance and stated that by using external finance the project may have been completed "slightly" faster compared to using state support to finance the project. However, the interviewee emphasised again that the support was a lower cost form of finance by comparison to bank finance. She stated:

"I think the Bank was very interested in us because we had a good, proven track record. It was very, very likely that we would be able to repay a loan ...I would think we were a low risk loan for the Bank." (SUP1)

Similar to SUP1, SUP2 would have used internal funds. However, by contrast to SUP1, SUP2 did not believe that external finance would have been available to the enterprise. SUP2 had already raised approximately  $\notin 1.5$  million through a business expansion scheme involving private investors. This source was not available for future rounds. Due to the enterprise accruing losses over the previous years, the time of application in 2011 when banks were perceived to have restrictions on lending and the enterprise being R&D focused, the interviewee did not believe bank finance would have been available to them. SUP2 also believed that venture capital would not have been accessible.

Similar to SUP 1 and SUP 2, SUP3 stated that they would have used internal funds to finance the project had support not been available. However, during the course of the interview SUP3 stated that they would have had the finance to fund the project in its entirety had support not been available. SUP3 made no reference to use of external finance.

SUP4 originally responded in the questionnaire, that the enterprise would have had sufficient finance to proceed over a longer period of time had support not been available. However, during the course of the interview he reassessed this statement and explained that they would not have been able to get funding. He stated that there was not a lot of understanding of the life sciences sector among the investment community within Ireland and that enterprises operating in this sector had considerable difficulty raising finance. The enterprise was able to attract seed funding from angel investors but he stated that they could only raise this funding because the enterprise had EI backing.

Similar to SUP4, SUP5 explained that the enterprise would not have had the finance to hire the employee that was supported by the grant. The enterprise was financed by personal funds and an overdraft which was primarily used for stock. She stated:

"We would not have had the finance to take on someone. We would have needed the business to be able to sustain that job." SUP5

All the three rejected enterprises did secure alternative funds to support following their rejection. However, due to being rejected, two of these had to delay their project and were reliant on alternative public supports, one of which was outside the Republic of Ireland. Both were experiencing difficulty in raising finance and did not have sufficient access to external finance.

While REJ1 did secure LEADER funding as an alternative to EI support, the interviewee explained that they were "starved of capital" and had difficulty raising finance. REJ1 did not believe that there were suitable metrics for valuing their enterprise. She explained that typically a software company such as theirs would be valued at 5 times its turnover. However, banks and funding agencies will not accept this

as a valuation and thus it was difficult to raise funding for an enterprise such as theirs as they had no physical capital to act as collateral.

REJ2 had secured GBP £25,000 in feasibility funding and a further offer of £300,000 support if they set up an office in Northern Ireland. However, at the time of application to EI, the enterprise did not have sufficient internal funds or access to external funds to carry out the project fully.

REJ3 stated that the enterprise did not require the financial support as since it was acquired it could source finance and was subsidised via its parent company. When asked why support was applied for even though they had access to other funding, REJ3 stated "it is there, so you might as well utilise it."

Of the final category of interviewees, two of the Non-Applicant enterprises had experienced difficulty raising external private finance in the early stages of development, despite wanting it. These enterprises relied on revenue and growing internal finances for their financing requirements. NONAP1 stated that their enterprise did not rely on external financiers and instead used internal enterprise funds to support business development.

NONAP2 did not have access to finance to employ additional developers and the shareholders of the enterprise had no additional funds to invest in the enterprise over and above what they had already invested. Instead they focused on organically growing the business through focusing on revenue generating projects, rather than focusing on R&D. He did not believe bank finance was available. However he did believe that the enterprise would have been able to secure bank finance had EI support been available.

"It might have been 10% from the directors, 40% from a bank loan and 50% from Enterprise Ireland, but there was no way we could have taken on a 90% loan" (NONAP2)

NONAP3 stated that the enterprise had a considerable amount of difficulty raising finance in the past. It was only since they experienced growth in enterprise revenues

that they were able to finance the purchase of new equipment and expand the enterprise. Previously they had applied to banks for finance but had been turned down.

In summary, the enterprises which had been established for a longer period (namely SUP1, SUP3 and NONAP1) were more likely to be able to find alternatives to support, but had a preference for using internal funds. REJ3 was an anomaly as it had access to funds from its parent company. The remainder of the respondents, all of which were younger, expressed considerable difficulty in raising external finance and therefore had no choice but to rely on internal funds or abandon the project. The sector in which the enterprises were based also had an impact, with those enterprises in manufacturing and with more physical capital (such as SUP1 and SUP3) having greater access to alternative finance than those who were more R&D focused and more so based on intellectual capital.

## 7.5 Suitability of support

This section examines the interviewees' perceptions of how relevant available financial supports are for their enterprises. Furthermore it presents findings regarding whether there are sufficient financial supports available for their types of enterprises and perceptions of the flexibility or rigidity of the support system relative to the evolving nature of the enterprises.

Two of the supported enterprises described the support as being inflexible to their needs while two perceived the agency not to understand the sectors that they operated in. All four were supported by EI. However, the final supported enterprise (supported by a CEB) did find the agency adaptive to their needs.

SUP1 explained that EI had been very flexible to the enterprise's requirements in the past. The interviewee cited the example that if they had a number of supported R&D projects running simultaneously, and one was successful and another was not, that they would be able to redirect support from one project to another. However, SUP1 stated that EI had become less flexible in this regard in recent years. SUP1 also stated that there were restrictions in place as to the amount of time that needed to be left between

applications for support. Though the enterprise was growing and trying to explore new growth opportunities, they could not apply for further support as it was too soon after their last round of support.

SUP2 stated that one of EI's weaknesses was that it was not specialist enough to understand enterprises such as his. He stated that they have specific *"templates"* that businesses need to fall into and that these templates do not suit technology businesses.

SUP3 stated that the funding available from EI is not very flexible. He stated that it is difficult to find out what supports are available and that this information is not given willingly. At the time of the interview SUP3 was examining having a new website developed as part of their plan to increase visibility of their products, and was seeking support to help fund this. He stated:

"What is available for websites is very limited and very restrictive. They (EI) have peculiar kind of ideas about the assistance that the grant can cover and you have to spend approximately  $\pounds 25,000$  on a website to get this grant assistance. We don't want to spend anything like that on the website. We are probably talking about spending maybe  $\pounds 7,000$  to  $\pounds 10,000$ " (SUP3)

He further explained that EI has preferred contractors for this type of work and that as a result these contractors inflate their prices, owing to the contractors having knowledge that the project is grant funded. In terms of the agency staff he stated that they were "not really commercially minded" but that there were funds there and someone could get them if they made a good enough case. He further stated that EI is not proactive in approaching companies with supports which may be more relevant to the enterprise.

SUP4 explained that the initial support from EI was critical. However, he further explained that enterprises in the life sciences sector, such as theirs, required a lot of investment before there was any return, due to the length of time required in life sciences R&D. The enterprise approached EI for additional funding but was told that it would not be possible and that such funding was outside of EI's remit. This was in spite of achieving all of the objectives in the business plan. SUP4 perceived the agency to have lost confidence in the enterprise due to the length of time required to other sectors,

such as IT, which would have a product or service ready to bring to market in a shorter period of time. He stated:

"In some ways Enterprise Ireland are very good to get you off the ground, but then they leave you on your own when you need more funding. Certainly in the life sciences sector and that is where we had challenges... We had good data but not enough to get a large  $\notin$ 20 million Series A funding. We only needed  $\notin$ 1 million or  $\notin$ 2 million to get us to that next level. People who do not work in Life Sciences, who don't understand the space will not invest that amount of money, the life science investors who do understand the life sciences sector want to invest  $\notin$ 20 million or  $\notin$ 30 million. They know it is a long process. We fell between two stools in that regard and I think that is where Enterprise Ireland could have stepped in." (SUP4)

SUP4 also explained that the Development Advisor had stated that typically support was restricted by cost per job measures and that typically enterprises were offered  $\in$ 25,000 per job created. SUP4 perceived this to be a poor measure for assessing the volume of support as the enterprise required more highly qualified employees, with higher wage requirements compared to other sectors. However, despite only taking on two employees as part of the project they were given the entire amount of funding ( $\in$ 250,000) as EI believed they would grow to over ten employees in the future. This demonstrated some flexibility and understanding on the part of the agency. However, the enterprise was told that they would only get additional funding in the future if they were to hire 20 employees. SUP4 explained that hiring employees would not be of any use to the company at their current stage of development.

While SUP5 found the support that they received very beneficial, she stated that their enterprise was supported because the enterprise board "took a local view" of their business and supported it because there were no other enterprises with a similar product and service in their local area. However, SUP5 also stated that because they were never going to be an export based business that there were a limited amount of supports available for them.

The Rejected and Non-Applicant enterprises shared similar opinions of supports available for their businesses. Three interviewees did not believe that support was suitable for their stages of development, while two did not believe that the agency understood their businesses or sectors.

REJ1 stated that in the application process with EI, EI was encouraging them to hire additional employees as opposed to the enterprise's plan to outsource some of the development work. The LEADER programme was found to be much more flexible by comparison and could be used on expenditure for website development and marketing videos. For example, REJ1 explained:

"It went beyond software development, whereas Enterprise Ireland cannot assist you with marketing." (REJ1)

Currently REJ1 believes that EI does not perceive the enterprise to be an EI candidate for support as the enterprise is no longer a start-up and it does not have more than 10 employees. REJ1 perceived there to be a gap in the supports that are available.

"Our position is we fall between two stools. We are in an industry that does need a lot of capital to grow. We are technology and export based so that would put us in the camp of Enterprise Ireland. But because we don't fit into their narrow guidelines of either start-up or have 10 employees they keep trying to shunt us to the Local Enterprise Office, but the LEO<sup>20</sup> will tell us that they have nothing to offer us."

REJ1 also had difficulty with the matched funding process describing it as a misnomer. She stated that they had to make all of the project expenditure before they could claim half of it back. Initially this was problematic with the LEADER funding that they did get approved for. The enterprise was under greater pressure because they had a short time to complete the project. By comparison REJ2 stated that EI did not understand the enterprise's business plan, while REJ3 stated that the enterprise was ineligible for support.

NONAP1 agreed that there was a need for further supports for their type of company. He specified that it was not just in relation to funding but also to marketing assistance. He further explained that while in the past agencies were focused on bringing industries

<sup>&</sup>lt;sup>20</sup> Local Enterprise Office

to Ireland, EI are presently focused on outsourcing electronics manufacturing to China and that EI has built relationships with manufacturers in China. NONAP 1 recalled:

"We constantly found ourselves at loggerheads with Enterprise Ireland. In my opinion, not the company's opinion, Enterprise Ireland do not see electronics as the 'need to' market to be in." (NONAP1)

NONAP1 also explained that he inquired with EI about training for key executives within the company, for which EI redirected him to a private company. Similar to SUP3's opinions, he believed that the training company were charging inflated prices.

Similar to REJ1, NONAP2 did not believe that there were suitable supports to allow their company to develop at the time. He explained that CEB funding was too small to allow his enterprise to invest in R&D, yet EI was inaccessible to a smaller enterprise.

NONAP3 stated that there was need for further financial supports for smaller start-up enterprises. However, since NONAP3's enterprise had grown it did not currently require support. When asked to qualify this statement the interviewee stated:

"If there were other grants available we would put in for them, but we are not dependent on grants" (NONAP3)

In summary, the interviewees demonstrated mixed perceptions regarding the suitability of support for their enterprises. Those operating in more niche areas perceived a lack of understanding about their businesses from the agencies. There is also evidence which suggests that the agency focus on jobs does not match the enterprises' development plans. Furthermore, the overall policy guiding how support is issued was not flexible to meet the sector requirements of one of the respondents. Finally, for some of the smaller enterprises, there were perceptions that there were no suitable financial supports for them as they were too small for EI.

## 7.6 Deadweight

In the questionnaire in phase one of this research, a close ended question was put to respondents in order to assess the level of deadweight with respect to an enterprises ability to proceed with a project in the absence of support. This was "If the most recent support had been refused, would your company have carried out the supported activity":

- 1. Fully
- 2. Over a longer period of time
- 3. On a smaller scale
- 4. On a smaller scale and over a longer period of time
- 5. Abandoned the supported activity

A similar question was put to rejected respondents to assess what did happen to the project after their application had been rejected. During the course of the interviews, interviewees were asked for what reasons the project would have changed, if it would have/did change. This was asked in order to gain a greater understanding of why deadweight occurs. As non-applicant enterprises did not apply for support, there was no context to answer this question. It should be noted that during the course of the interviews SUP3, SUP4 and SUP5 changed their answers from "carried out the project over a longer period of time" to "carried out the project fully" or "abandoned the project". The respondents' answers are detailed in Table 7.4.

	Deadweight	Project status in the absence of support			
		Survey Response	Interview Response		
SUP1	Partial	Carried out over a longer period of time			
SUP2	Partial	Carried out over a longer period of time			
SUP3*	Partial/Pure*	Carried out over a longer period of time	Carried out fully*		
SUP4*	Partial/Zero*	Carried out over a longer period of time	Abandoned the project*		
SUP5	Partial/Zero*	Carried out over a longer period of time	Abandoned the project*		
REJ1	Partial	Carried out over a longer period of time			
REJ2	Partial	Carried out over a longer period of time			
REJ3	Full	Carried out the project fully			

Table 7.4: Levels of deadweight for interviewees' projects

\* In the interviews, respondents changed the answers they had provided in the survey

All of the supported enterprises who would have altered or abandoned their projects had support not been available stated that this would have been due to lack of finance. In the questionnaire phase of the project, SUP1 had stated that the project would have been carried out over a longer period of time had support not been available. When asked why this was the case, SUP1 stated that the enterprise's cash flow would have been affected as they would have been using internal funds to finance the project. She explained:

"The pieces of equipment I am talking about from start to finish probably cost about half a million euro and it is a big drain on finances... you have brought your cash flow down and then your working capital down to nil or to a very low level... we didn't want to tie up our working capital in fixed capital." (SUP1)

SUP1 further stated that had their cash flow been reduced, they would not have been in a position to buy as many raw materials or take advantage of times when raw materials were at a low price. Furthermore, in the type of industry they are working in there are already considerable cash flow constraints due to having a shorter credit time frame with their suppliers compared to their customers. In addition to this, having a healthier cash flow allowed the enterprise to engage in price promotions and grow the business. This was an important aspect for the enterprise as they operated in a highly price sensitive industry. Thus, by successfully gaining financial support from EI, the enterprise was able to increase production and sales.

SUP2 had agreed in the questionnaire that the project would have been carried out over a longer period of time had support not been available. When asked why this was the case in the interview, SUP2 stated that it was due to finance. He stated that the enterprise had only just started making a profit and that they only had a limited amount of finance to invest in R&D. As stated previously, the enterprise did not have access to external funds. However, while SUP2 stated that the support was a "huge help", he did not perceive it to be essential. He stated:

"We have invested first, both financially and in terms of time and then if we can get these supports from the likes of Enterprise Ireland we will take them, but if we can't get them ...I suppose they wouldn't be on the critical path of company success. We would have nothing dependent or contingent on getting it (support). If we can get it we will take it, if we can't, we can't... I think we would have done this anyway because we had raised the  $\in 1.6$  million before we spoke to them (Enterprise Ireland) at all" (SUP2)

Whilst SUP3 initially stated that the project would have taken a longer period of time had they not had support and attributed this to lack of cash flow. However, later in the interview he stated:

"I have to be honest ... we would have gone ahead with the project without support. Support just helps to relieve some of the expenses." (SUP3)

He stated that the amount of support was not significant relative to the overall spend on the project. Furthermore, he stated that the project timeline was dictated by the university in the Netherlands which they were collaborating with. He stated that the university facilities were in high demand and that when the opportunity to work on the project presented itself, that they had no choice but to proceed. However, SUP4 had responded in the questionnaire to indicate that the project would have been carried out over a longer period of time had support not been available. However, in the interview he changed his answer and stated that the enterprise would not have been founded without EI support. He attributed this to there being a lack of funding available, particularly for the life sciences sector, in Ireland.

SUP5 described the grant as being "critical" and that they would not have been able to take on the employee without the employment grant. This response differed to that in the survey where it was stated that the project would have been carried out but over a longer period of time.

Similar to the supported enterprises, the rejected enterprises had to delay their projects in the absence of support due to lack of finance. REJ1 and REJ2 both continued the project over a longer period of time. The delay in both cases was due to finding alternatives to support the projects following their rejections. Neither enterprise would have been able to proceed with the projects without the alternative supports which they received in place of EI support. REJ3 continued with the project unchanged due to having access to finance and resources from the parent company.

In summary, based on the interviewee responses the reason for a project proceeding or not proceeding in the absence of intervention is primarily due to availability of finance. The level of deadweight is linked to the volume of funding, relative to the enterprises stage of development.

## 7.7 Perceived additionality

The supported interviewees were asked a number of questions relating to the benefits they perceived from receiving financial assistance. The rejected and non-applicant enterprises were questioned as to what benefit they perceived they might have been gained had they been supported. All of the enterprises were also asked if they received any soft supports and if so what influence these had on the company. Finally, all interviewees were asked what they perceived to be the strengths and weaknesses of the supports available for their enterprise. These questions combined provide indicators as to where there is perceived additionality and where support is perceived to offer no additionality.

SUP1 explained that EI contribute ideas during interactions between the enterprise and the agency. She explained that EI understood their industry well and were a good "sounding board" for ideas. She further stated:

"When we went to them (EI) first about this expansion they would contribute their ideas... they will know people and if they know somebody who has built the same kind of factory nearby, they will put you in touch with them"(SUP1)

EI also put the enterprise in touch with a "Lean Business Expert<sup>21</sup>" and paid the costs associated with this. SUP1 stated that this was hugely beneficial for the company and where EI support had the biggest influence. The interviewee spoke at length about this. When comparing to other aspects of support that they had received, she stated that if the enterprise needed a new piece of equipment, they would have to purchase it regardless of support. However, they may not have adopted Lean Management practices without EI assistance. She further explained that "Lean" is a concept which EI promote and that since the enterprise engaged with implementing suggested Lean Management initiatives they had introduced new KPIs (Key Performance Indicators). SUP1 perceived this element of support to have a significant impact on flows of products, staff and tasks through the factory. SUP1 also agreed that EI has had an influence on the enterprise's strategy. EI encouraged the enterprise to hire a Human Resources (HR) manager, which they had not had before, to support growth in employee numbers. EI also encouraged the Managing Director to go on a management course and assigned a mentor who would visit and join management meetings. The employment of a HR manager and the mentor changed the enterprise strategy and management style of the enterprise. Finally, SUP1 perceived the enterprise to have a better relationship with banks and suppliers due to EI involvement in their company. Overall, the interviewee believed that the enterprise had become more professional and more structured as a result of EI support. She explained:

<sup>&</sup>lt;sup>21</sup> A consultant to advise on increasing efficiency of the enterprise

"It is not so much what you would lose if you didn't use Enterprise Ireland it is what you can gain if you do... it is not all about the money, it is also about their knowledge, assistance and contacts and it is quite far reaching... but the money is important too" (SUP1)

SUP2 stated that because the EI support financed the R&D aspect of the enterprise and helped them to develop the technology platform on which their enterprise is based. This in turn allowed them to increase sales and market share. SUP2 also explained that EI's processes involve them coming into the business and doing an audit to track the project's development. He stated that this was a good "discipline" and forced the enterprise to examine the time that they were allocating to the project and analyse how it was progressing. He confirmed:

"It probably forces you to do it more comprehensively than you might do it if left on your own... it puts that project discipline in place around the R & D" (SUP2)

However, he did state that this was a very time consuming process and particularly troublesome for a small company with limited numbers of staff.

SUP2 also perceived the soft supports that they received to be useful at the earlier stages of company development but stated that they did not use them recently. The enterprise had gained the most benefit from EI's international offices when the enterprise was trying to expand into international markets. He further stated that 70% of their business, at the time of interview, was in the UK, and that EI helped them to break into that market. In addition to this, he stated that after the funding that they received, export assistance of this kind was the next most important feature of the support they received.

They also perceived benefits from EI funding staff to attend conferences and engage in training. Finally, they also found EI networking events, with other enterprises operating in a similar sector, to be useful. However SUP2 did not find the EI assigned mentor to be useful. He stated that the enterprise was "too specialist" for the mentor and because they were initially focused on product development rather than profit, the mentor's business knowledge was not applicable.

SUP3 had a more negative impression of EI support. While he stated that the product resulting out of the project they were working on would increase their market share, he did not agree that it was due to receiving financial support:

"I wouldn't say it (financial support) has done anything for us" (SUP3)

Yet they also explained that EI had contributed to expenses of attending trade fairs, covering 50% of costs but that there was a limit on the number of times they could use this facility. The enterprise was due to attend one of these trade fairs again but support was unavailable. When asked if he would go, without support, he stated that he would, by saying:

"We do it (attend trade fairs) because if you don't you are dead in the water. You can't rest on your laurels and you can't wait for customers to come to you" (SUP3)

SUP4 explained that having EI funding not only provides finance but also provides an endorsement of the project because of the due diligence that they conduct. He further stated that the Development Advisor assigned to the enterprise facilitated networking with third parties, such as those in the life sciences regulatory area. However, SUP4 believed that his own experience of working in the sector was considerably more important than anything that EI had to offer in this regard.

SUP4 explained that because the enterprise had support from EI, they were able to use this to raise finance from angel investors. He explained:

"We pitched to an investor and because of the Enterprise Ireland matching funding and that Enterprise Ireland had confidence in us, we were able to get funding." (SUP4)

SUP5 stated that the support was an incentive to grow the business. She explained that the existing employees in the enterprise were at capacity but were managing to cope with the workload. However, the support allowed them to take on an extra employee and relieved existing, specialist staff to focus on their core work as well as relieving pressure on these extra staff. Since taking on the employee, the enterprise was able to supply to hospitals in their local area which SUP5 believed they would not have been able to do without taking on that employee because their existing staff would not have had time to pursue this opportunity. She reiterated:

"The fact that the grant was there allowed us to re-think and take a little bit of pressure off ourselves" (SUP5)

SUP5 also availed of soft supports through the enterprise board. Prior to setting up the enterprise the founder took part in a "start your own business course". She found this course very useful as she was from a medical background and not a business background. She agreed that the course was critical to developing their business plan by stating:

"I was let go from my previous position in July 2009 and we had our first client in our own premises with stock in September 2009. There is no way we would have been able to do that without the start your own business course to assist us." (SUP5)

REJ1 was unsure if there would have been any benefits to gaining EI support over and above what they did get from the LEADER programme. When the software was developed, the enterprise went back to EI for further support and perceived them to be "very unresponsive". They did get a mentor from EI who was perceived to be useful. In terms of not getting EI financial support REJ1 perceived that they would have been more successful had they received financial support. REJ1 further explained that they would have had more success raising external finance had they been successful in getting EI support. The enterprise did make enquiries about getting venture capital funding. The only avenue that was open to them was to start up a new company and apply for seed funding. However, it was explained to them that they would be unlikely to get seed funding without getting EI support also. REJ1 commented:

"I felt like they were annoyed that we had not gone with them (EI) for funding in the first place. That we had gone with LEADER funding, as far as they were concerned, we were no longer a client of theirs." (REJ1)

REJ2 did not engage with EI any further following their rejection and was extremely negative about the organisation and support.

REJ3 did not require the financial support. When asked if receiving support from EI would have been more beneficial to the enterprise, she stated that it would not have made any difference. However, the enterprise was provided with a lot of soft supports including training for areas including international sales training and product management. She surmised:

"It's all about improving the knowledge base of the company so we can make better decisions and better planning, and grow our export sales. They are really, really good. I don't see Enterprise Ireland as just a source of funds, but as a resource for best practice and a resource for how to go about promoting yourself as an Irish company in order to get export sales."(REJ3)

All three non-applicants perceived potential benefits which would have been experienced had they received financial support. NONAP1 believed that had EI engaged with his company that they would have had greater levels of exports. The enterprise did not receive any soft supports. While he did believe such supports would be of benefit, he stated that these would only work effectively if EI was actively engaging with the sector in which the enterprise was operating in.

Interestingly, NONAP2 explained that since they decided not to follow through on an application for support, the enterprise has remained static in terms of size. He stated that the enterprise became focused on revenue generating projects rather than longer term strategic developments and investing in R&D, by stating:

"The whole thing has been slowed down due to the decision not to access the funds. If the process was a lot more straight forward and a lot less bureaucracy, we probably would have gone for it."(NONAP2)

NONAP3 found the support for attending the trade exhibition, which they received after the time span of this study, to be very useful. They had previously not engaged in much marketing activity. The interviewee stated that they would have gone to the exhibition had they not got this funding, however, four employees from the enterprise were able to attend due to the funding being available. Had support not been available they would have only been able to send two of the employees and would have had fewer marketing materials. When asked what the enterprise would use funding for, if it were available, NONAP3 stated that funding would allow them to invest in new equipment and therefore move into new areas within medical devices manufacturing.

In summary, there is evidence of perceived additionality across all three forms of this concept. In terms of output additionality a number of supported interviewees reported growth in revenue and/or exports as a result of receiving support. In terms of input additionality, the enterprises which were supported were able to take on additional employees. In addition to this, the validation that receiving EI support provides, allows enterprises to raise additional finance to inject into the enterprise. There was also some evidence of behavioural additionality from both the application process (described in Section 7.3) and from the interactions with EI. Finally, there is evidence to suggest that the support is multidimensional and that it is not solely the finance which benefits the enterprise but the package of support that is offered, including soft supports.

#### 7.8 Chapter Summary

This chapter has presented the findings from interviews conducted with respondents to the questionnaire. The findings related to a number of areas discussed in the theoretical framework for this study, including relevance of support, market failure, substitution, deadweight and additionality

Firstly, in terms of information asymmetry, exploration of enterprises' perceptions regarding the application process, demonstrate that the demands for information by the agency were deemed to be burdensome. There was only one instance of behaviour which could be deemed as rent seeking (from REJ3). However, due to no information asymmetry (i.e. the agency were aware that the enterprise had access to funding from its parent company) this did not lead to substitution. If this project did proceed without support, this would have been pure deadweight. However, this was an isolated example.

In terms of substitution, there was evidence of capacity for substitution among a number of enterprises. In the case of supported enterprises, where substitution was possible, public funds would have been substituted by internal funds. In the majority of cases this would have resulted in negative impact on other aspects of the enterprise and/or on the timing of the project. In all cases the ability to substitute alternative funds for support, determined the level of deadweight. One enterprise had access to sufficient finance to not require support, and would have been able to proceed with the project fully in the absence of support (SUP3). Those enterprises with sufficient finance to carry out the project over a longer period of time demonstrated partial deadweight. Finally, those enterprises which would not have had access to finance to proceed with the project on any level exhibited zero deadweight. Furthermore, when enterprises were questioned as to why they would have changed the project or abandoned the project in the absence of support, the only reason cited was due to lack of finance.

In terms of market failure, with exception to three enterprises (SUP1, SUP3 and NONAP1) all enterprises demonstrated difficulties in raising sufficient finance. SUP3 was the only enterprise to demonstrate pure deadweight and also demonstrate no difficulty in raising finance. However, whether this enterprise was issued support due to a misperception of market failure or due to the agency deciding to issue support for other reasons is unclear.

There was no evidence of selection bias. While some of the supported enterprises were more developed (such as SUP1 and SUP3), others were younger and at developmental stages (SUP 2, SUP4 and SUP5). Similarly, other than REJ3, the rejected enterprises were also early stage enterprises. Furthermore, many of the enterprises, supported, rejected and non-applicants, perceived there to be a lack of suitable support and a lack of understanding of their enterprise by the agency.

There was considerable evidence of perceived additionality across all three types of additionality. This varied considerably among supported enterprises depending on the components in the package of support. The majority of respondents, both supported and rejected, believed that securing support would result in making access to external finance easier thus demonstrating input additionality. Some of the supported enterprises reported growth in sales as a result of support thus demonstrating output additionality. There were considerably more facets of behavioural additionality, primarily gained from the soft supports.

**Chapter 8 – Enterprise Agency Perspectives** 

#### 8.1 Introduction

This chapter presents the findings from the third phase of the primary research which involved interviews with representatives of the two main enterprise support agencies; The City and County Enterprise Boards (CEB) and Enterprise Ireland (EI). It is a common feature of previous studies of deadweight and enterprise support to examine policy documentation and evaluate support based on data from the enterprise's perspective. However, few studies examine enterprise support from the perspective of those decision makers who administer it or from those who ultimately decide whether an individual enterprise is supported or not. The purpose of this chapter is to gain insights as to how enterprise support is allocated and how the decision is made whether to support an enterprise or not.

This chapter begins by profiling the participants from the agencies who were interviewed. It then explores the perceptions of agency staff regarding the rationale for providing support, as to why enterprises approach the agencies for support, and the objectives of providing support. Findings related to the concept of substitution are then presented. This is followed by an examination of how agencies select enterprises for support, in order to determine if there is any selection bias at play. A summary of the application process is then provided, followed by an analysis of how information provided by the enterprises is validated by the agency. Finally, findings relating to agency representatives' understanding of deadweight are presented, along with measures they may employ to minimise deadweight.

### 8.2 Profile of interviewees

In total 13 agency staff were interviewed for this research. Five were from EI and eight were from the CEBs. The positions and jurisdictions of these representatives are presented in Table 8.1 with an accompanying map of regions in Figure 8.1.

Interviewee Identifier	Organisation	Position	Location	Jurisdiction
EI1	EI	Divisional Manager	Mid-West	National
EI2	EI	Divisional Manager	South	National
El3	EI	Development Advisor	South	Region
El4	EI	Sector Specific Development Advisor	Mid-West	National
EI5	EI	Regional Development Executive	Midlands	Region
CEB1	CEB	CEO	Dublin	City
CEB2	CEB	CEO	Dublin	County
CEB3	CEB	CEO	Mid-East	County
CEB4	CEB	Assistant CEO	South	City
CEB5	CEB	CEO	South	County
CEB6	CEB	CEO	South	County
CEB7	CEB	CEO	South	County
CEB8	CEB	CEO	West	County

Table 8.1: Interview participants for agency interviews

Fig 8.1 Map of Irish Regions\*



\*Northern Ireland is part of the United Kindgom and thus outside of the jurisdiction of support agencies of the Republic of Ireland

EI operates as a single entity and has nationwide coverage. Thus it has the same operating procedures for all of its locations. However, it has a more hierarchical structure, relative to the CEBs. Rather than a geographic spread EI representatives at different levels of the organisation were interviewed to capture both strategic and operational views of the organisation. The sample included two divisional managers working at a senior level within EI, two Development Advisors (DAs) who worked closely with companies applying for and in receipt of enterprise support, and finally one regional development executive who also had experience of working closely with applicant enterprises. The EI interviewees are designated as EI1 to EI5 throughout the rest of the chapter.

The reason for interviewing eight CEB representatives was due to the fact that each CEB operated independently of each other and only has jurisdiction over the city or county in which they are based. Furthermore, in the pilot interviews it was found that some CEBs offered different types of financial supports than others. However, as the research continued, differences between the CEBs in this regard were not found to be apparent. Each CEB typically employs a Chief Executive Officer (CEO), an Assistant CEO and support staff. For this research seven CEOs and one Assistant CEO were interviewed as these would have the greatest knowledge of their organisation and would be responsible for meeting with applicant enterprises. Two of the CEBs were located in Dublin, one city and one county. Four were selected from the South Region, one from a city and the remainder from county areas. This was due to the economic diversity in the region and also due to the region being the largest, covering the largest geographic area of all regions presented in Figure 8.1. Finally, one CEB CEO from the Mid-East and one CEO from the West were interviewed. The CEB interviewees are designated as CEB1 to CEB8 throughout the rest of the chapter.

Both EI and the CEBs were profiled in Chapter 3. However, it is worth reiterating that both have a different remit in terms of their clientele. EI serves High Potential Start-Ups (HPSUs)<sup>22</sup> and SMEs which typically employ more than 10 people. CEBs serve microenterprises, which typically employ less than 10 people. Furthermore, while EI

<sup>&</sup>lt;sup>22</sup> HPSUs must be able to achieve revenues of at least  $\in 1$  million and employ 10 people within three to four years of starting up, and this growth must be generated through an innovative product or service aimed at the export market (EI, 2016).

typically targets enterprises which operate in a relatively small number of high-tech and export sectors, CEBs have a broader remit.

## 8.3 Rationale for Providing Support

During the interviews, the first question which was posed to the agency representatives was to explain the rationale for their organisations supporting enterprises. Interestingly the initial reaction from the interviewees was to explain the objectives and goals of support (for example job creation) rather than the rationale for support. When asked further questions, from the perspective of EI, the main purpose in providing support is to address the shortfall in finance that enterprises face. All five interviewees from EI referred to the concept of *"shared risk"* and stated that EI were not prepared to be the sole risk taker in a project or enterprise. Enterprises seeking funding needed to have or to be able to secure matching funding. Thus from an EI perspective, the agency addresses market failure where enterprises face a shortfall in finance, but will not support enterprises which have no access to finance.

EI1 specifically referred to the concept of market failure and simultaneously explained that support should not displace, or substitute the private sector: He cited the example of High Potential Start-Ups (HPSUs) stating that these companies were high risk and did not guarantee a return. This meant that such enterprises had difficulty in raising finance from the private sector. Providing a broader view, he stated:

"The fundamental rationale behind what we do is market failure... it is ensuring that the State resources and the State intervenes where it should intervene and that is to say that it intervenes where there is a market failure" (EI1)

EI2 elaborated on the market failure concept and referred to the difficulty enterprises face raising finance. He stated that the main purpose of EI funding was to fill the gap in the market for finance. He further explained that early stage companies found it difficult to raise finance. Similarly, EI3 emphasised that early stage enterprises faced a shortfall in funding. However, he explained that support was not in place to solely finance the enterprise, but to form part of a funding package:

"Any start-up is typically underfunded. They need to get to a level where they have a lot of money to reach a milestone. We give  $\notin 250,000$  and the promoter<sup>23</sup> manages to raise  $\notin 250,000$  so the company now has  $\notin 500,000$ . That gives them time to develop the product and secure their first ten export focused customers" (EI3)

EI4 stated the rationale for supporting enterprises was to encourage companies to grow and that many enterprises have limited access to financial resources, thus growth is inhibited. Similar to EI2 and EI3, EI5 explained that enterprises typically need more finance than what they can raise from the private sector alone:

"The majority of the companies would struggle to raise enough money to complete a project without the EI support... for those who have who are fortunate enough to have their own money or can raise cash, they always need more money." (EI5)

However, EI1 explained that the rationale for support has changed and adapted over time in line with the economic cycle, and that during an economic downturn, the market failure rationale in the context of finance is much more apparent:

"Between 2001 and up and until 2008... we were going out talking to companies about doing the good things like research and development innovation, training your people, training your management, becoming competitive, expanding into overseas markets and sustaining existing markets and trying to develop more markets and that was a bit of a hard sell because a lot of companies would have said "look we are making profits here"... from 2008 onwards, even those companies that did the right things during the boom, that did the R&D and made those investments, that innovated, that developed their people, that tried to expand in the right way, were not getting funding from the banks and so much so that with their permission we were actually engaged with some of the banks at that stage pleading with them for working capital. So I suppose the broad point is it depends on the time frame" (EI1)

By comparison, five of the eight CEB interviewees demonstrated that they perceived market failure in terms of lack of availability of finance for enterprises. Three of the eight interviewees stated that support would increase the speed at which an enterprise

<sup>&</sup>lt;sup>23</sup> The term promoter is frequently used by EI and CEB staff as a title for the owner/manager of an enterprise who applies for support.

could achieve its goals. An additional two interviewees reported that support would help to ease an enterprise's cash flow.

CEB1 stated that the purpose of providing support was to provide finance to enterprises to assist with starting up or growing. He stated that though enterprises may have access to finance, CEB funding allows these businesses to grow or start-up faster or on a larger scale than they would without support. Similarly CEB3 and CEB5 explained that CEB funding increased the speed at which a project could be undertaken by the enterprise. CEB5 stated:

"The thinking is if one provides finance to a start-up project in particular then they are going to reach their targets earlier than if they were going to have to go out and seek private funding or purely bank finance" (CEB5)

CEB2 simply described the rationale of providing support as "to fill a gap which cannot be met by regular private financing options". However, CEB3 offered more detail and explained that very few start-ups did not require some form of government support. While private finance may be available to an enterprise, solely using private finance places extra pressure on enterprises which can inhibit growth.

"It can be very difficult (for an enterprise) to obtain finance from normal mainstream providers. Obtaining finance from any mainstream provider also puts an awful lot of pressure on a start-up because they have to immediately start making repayments and it is an immediate constraint on their cash flow" (CEB3)

CEB4 also stated that the rationale for providing financial support was due to lack of finance availability. She further explained that start-up enterprises typically have a limited track record to prove that they are commercially viable or may have an unproven business concept. CEB funding provides start-up capital and allows enterprises to have the cash flow to engage in growth. Finally, she stated that though enterprises may have some funding available, it may not be sufficient to achieve their objectives, and CEB funding supplements private finance. However, CEB4 stated that enterprises which cannot raise any finance will not be supported.

"If they (the enterprise) said that they needed to raise a balance of  $\in 10,000$  or  $\in 15,000$ , we would like to see evidence of that before we take applications to the Board. If somebody comes to us and we feel that they haven't been successful in getting the balance of funding, there wouldn't be much point in us approving funding for that project because it would not be commercially viable. I say to a lot of people to forget about chasing the grants. Chase the proposal, chase the market and make sure it stacks up, and then the funding will follow. I think if somebody has a commercially viable idea and they can present that to a lender, then the lender should be able to support it as well" (CEB4)

Interestingly, CEB6, CEB7 and CEB8 did not provide information on the rationale of support, despite being asked in a number of ways. Instead they seemed to be keen to refer to their mandate and repeatedly outlined the objectives of support (presented in Section 8.5). However, CEB6 explained that support offered access to finance and also eased pressure on an enterprise's cash flow. Furthermore, CEB6 stated that support increases the pace of investment for enterprises.

When asked about why enterprises seek support from the CEBs, CEB7 explained that it was due to enterprises struggling to raise sufficient finance and thus market failure can be inferred. However, similar to CEB4, he stated that it was unlikely that a CEB would support an enterprise which could not raise any finance:

"Very often that business is not going to work because there is no finance behind it... There is no funding to be able to draw on if something comes up that they have not foreseen so they are much, much, much more risky than the ones that have funding or the ones that could get finance" (CEB7)

To summarise, the majority of interviewees cited lack of finance as the primary rationale for offering financial support to enterprises. Underpinning the rationale, there appeared to be the overall perception that all start-ups were underfunded (EI3 and EI5) and that start-ups were high risk (EI1). However, all EI representatives presented the concept of *"shared risk"*, stating that matching finance must be raised from the private sector. Furthermore, the targeting of support may be adapted in line with changes to the business environment (EI1). Similar to EI, where CEBs stated a rationale for offering financial support, it was because of a lack of finance. This was due to enterprises not having a sufficient track record (CEB4). The perception was that by offering financial

support, enterprises could grow faster or to a greater degree (CEB1 and CEB5). However, similar to the EI concept of shared-risk, CEBs required their clients to be able to raise part of the funding (CEB4).

## 8.4 Perceived reasons for seeking support

Agency representatives were asked why they thought enterprises sought support from them. From an EI perspective, the most cited reason why enterprises approached the agency was to secure finance, with all five interviewees citing this as a reason. However, four out of the five agency representatives believed that EI was perceived as more than solely a source of finance and that enterprises also applied to the agency to receive non-financial supports. Only one out of the five interviewees made reference to behaviour which could be interpreted as rent seeking.

EI1 stated that enterprises seek support for finance, but that it is the overall package of support, including soft supports, which brings enterprises to the agency. He stated: "*I think they probably seek supports for the other elements that we can add*", and listed many of the features of EI such as internal and external R&D expertise, international offices for market access and mentors. Similarly EI2 and EI4 both expressed the underlying need for finance by the enterprise but stated:

"Finance is one reason, but there can be others as well... there is a whole range of other factors; a key one being access to our networks and particularly access to some of our capability building, some of our training programmes, and possibly to the network that we have around the world. If companies have a product and they are looking to sell into markets overseas, in some cases that is more important than money." (EI2)

"They have a need to achieve something. They want to either export or they want to grow the business or they want to up-skill and develop their management staff or systems within the company... another reason would be they don't have the financial resources to do it." (EI4)

EI3 referred to the financing requirements of enterprises approaching them for support, which added further validation to their perception of market failure inhibiting enterprise growth. He stated:

"Finance is a very high priority for them so they need the money. Maybe they can raise some money but that won't get them far enough. So they need our money to match it and achieve the targets that they set out. " (EI3)

EI5 stated the EI financial support is an "*attractive*" type of finance and that in the majority of cases an enterprise's project would not be able to proceed without the support. However, he further stated that this was not always the case and that some enterprises approach EI for validation of their projects. He provided a hypothetical scenario to describe this:

"[In a]  $\in 20$  million investment, we might put in half a million for example. Now they don't need our half a million. They have raised 19 and half million, they have raised enough to get from A to B. So why are they getting us involved? Is it because they want to take half a million from us because it is attractive to them or because there is a low rate of interest? Not really. It is because the soft supports and the due diligence and the fact that we get involved in them and the optics of us being associated with them." (EI5)

One of the EI interviewees perceived rent seeking among potential client enterprises, but stated that they will not support such enterprises:

"We get plenty of companies that still come to us... that support from the State is a cheap option... We are not in the business of just handing out cash. We are in the business of trying to find those prospects that the taxpayer should support" (EI1)

EI4 stated that in addition to the availability of finance, the way financiers operate may be off putting to enterprises when it comes to funding projects. The principle differences between the way EI issues support and private financiers issue funds better allows enterprises to engage in growth:

"If you have venture equity investors, they will own a share of the business... companies are nervous of equity investors and then having a partner who they did not know before, having a share in their company and that is particularly true in relation to small and medium companies in Ireland of which 90% of them are what we call family run businesses. So it is a question of getting investment from EI and they will retain ownership and management decision making rights within the company, or get investment from equity investors or venture capitalists and

then they will have a business partner who will tell them how to run their company and will probably sell out of it in 3 to 5 years... they have limited access to capital investment from banks and if they do manage to get some kind of loan or investment from banks, the guarantees sought are now extremely high" (EI4)

Similarly, seven of the eight CEB interviewees stated that finance was the primary reason why enterprises seek support from the CEBs. However, three of the interviewees agreed that there are enterprises who seek support even though they do not need it, which may be perceived as rent seeking.

CEB1 stated that the main reason for enterprises approaching the CEB is for finance. His views were similar to those of EI4 with regard to comparisons between state funding and private sector funding. He stated that banks typically seek collateral while private equity investors will require a stake in the enterprise. CEB funding allows entrepreneurs to engage in riskier projects.

Similarly, CEB2 primarily referred to finance as the main reason for enterprises seeking support from the CEBs. He further explained that a typical enterprise may finance themselves using one third internal or personal funds, one third traditional finance such as a bank loan and one third state support.

CEB3 stated that enterprises approach the CEB for financial support because it is an attractive form of finance. Enterprises who receive financial support from the CEB typically only have to repay a portion of the funds back to the CEB. However, CEB3 explained that during the application process when enterprises submit their business plan, they get a lot of feedback from the enterprise board as to potential weaknesses and the enterprise board helps these enterprises to develop their business propositions. This contrasts from a bank which CEB3 perceived to either accept or reject a loan application, instead of helping the enterprise reach a stage where they could secure finance. CEB3 further explained that while enterprises do not necessarily approach the CEBs for assistance with developing their concepts, they do retrospectively realise the benefits of the CEB advising on business plans after the project has been commenced.

CEB4 explained that the CEB receives some grant applications from enterprises that do not require the support. Similarly CEB5 and CEB7 explained that while the primary reason for enterprises seeking support from the CEB was due to lack of finance, there were enterprises which sought funding despite not requiring it:

"The average entrepreneur and the good entrepreneur want to maximise the take that they can get. And we would typically have enquiries from people who want to get money out of the state system. That would be regardless of whether they can get banking finance or otherwise." (CEB5)

CEB7 explained that enterprises approach the CEB because of difficulty in raising finance. However, he also stated that there may be enterprises which secure grants from the CEB and do not require it and further described CEB Grants, from the perspective of enterprises, as being "free money"

CEB8 stated enterprises apply for support as their decision to take on extra staff or invest in new equipment was a "marginal" decision and that CEB support reduced the risk and makes expansion more feasible. He stated "we are helping them to make a positive decision in relation to making an investment or taking somebody on."

In summary, the majority of interviewees from both agencies agree that requirement for finance is the primary reason why enterprises seek support from the agencies. While one respondent was keen to express the advantages financial support had as a source of finance in terms of ownership and control (EI4), there were additional features of support which the interviewees highlighted. The package of support was considered to be important, with clients seeking soft supports and other non-financial elements which the agencies could provide (EI1, EI2 and EI4). The validation that EI provides to an enterprise was another aspect which was regarded as important to enterprises (EI4). From a CEB perspective, two respondents expressed that support as a source of finance, had advantages over other sources of finance (CEB1 and CEB4) and allowed enterprises to engage in higher risk projects (CEB1 and CEB8). However, three of the CEB interviewees also referred to behaviour which could be deemed as rent seeking (CEB4, CEB5 and CEB7).

# 8.5 Objectives of providing financial support

As stated in Chapter 4, the main objective of support is to create additionality, in terms of outputs, inputs or changes to behaviour. Based on the responses from EI, the primary emphasis from their perspective is on influencing input and behaviours through issuing support.

All five EI interviewees explained that the objective of providing support was to create employment (inputs to the enterprise). Furthermore four out of five referred to increasing exports (outputs) as an objective. Three out of five interviewees referred to developing enterprise capabilities, citing elements such as R&D and management development. EI1 stated that the objective of support was to provide "*export led jobs*". He further stated:

"Our job is to either develop new companies or to re-orientate companies away from the domestic market towards the overseas market... to maximise the impact of the funding that we get from the State is to ensure that the capability of the company is developed" (EI1)

EI2 also explained that jobs and exports were the two main objectives but also stated that financial support also existed to develop other elements of the enterprise:

"I suppose the ultimate (objective is) to create jobs, create employment and generate exports... financial support is to help the companies grow and develop across a whole range of things. Help in terms of capability, help in terms of creating jobs, help in terms of research and development capacity, help in terms of training in management development. EI provides a whole range of financial supports to industry" (EI2)

EI3 did not offer much detail on the objectives of support but stated "*It is mostly to help develop world class companies*" He further explained that EI placed a strong emphasis on employment and exports. EI4 also offered a more limited explanation of the objectives of support solely citing the objective of job creation:

"It's all about creating employment. If we give the support to companies, we know that they can increase employment which is basically good for the economy generally speaking" (EI3)

EI5 offered further detail stating that increasing exports and increasing innovation were goals of support, but that these goals were to support the primary objective of increasing employment:

"The main purpose is to increase the number of jobs, to increase exports, and to increase the level of innovation that is going on within the companies... our focus ultimately is jobs. It is just that we focus in the area of exports and innovation. This is important to us because the future of a business in an export market is to have something that is different and that is where the innovation comes in."(EI5)

Four out of the five EI interviewees referred to support being used to leverage finance from the private sector, which may be considered a form of input additionality. EI1 shared his perception of this concept:

"By our intervention we leverage from the private sector. The VC community are not in the habit of taking the full risk so what we do is share the risk with the private sector... it is basically to incentivise the private sector to get involved in companies when they are at their riskiest and where the chances of a return are really, really uncertain."(EI1)

Similarly EI2 supported this view explaining that enterprises typically find finance from the private sector to complement financial support from the state. He believed that if EI supported an enterprise, it was an "endorsement" of the enterprise and thus the issuance of support would help the enterprise to secure finance from the private sector. EI3 also shared this view explaining that enterprises go through a "challenging" due diligence process when applying for support, which makes it easier for enterprises to raise other funding.

Three out of the five EI interviewees referred to behavioural aspects of support. EI1 explained:

"It is sharing the risk for companies to do things that otherwise they wouldn't do... it is to incentivise companies to do things that they wouldn't ordinarily do... the risky things, the non-day-to-day things, the bit that adds real value". (EI1)

EI1 further explained that the agency attempts to maximise the impact of funding by supporting capabilities throughout all activities within an enterprise. He explained that if, for example, a company approached EI for funding R&D activities, that the agency would work with the company to develop other activities such as sales, management and production/process capabilities.

EI4 referred to EI support as an incentive, developmental and motivational. Similarly EI5 stated that the due diligence that EI conduct, develops confidence among the promoter and the enterprise seeking support and validates their plans for growth.

"If they are given financial assistance or other assistance like training or knowledge, they are more than likely to pursue a growth agenda than if they were not given it" (EI4)

Six of the eight CEBs referred to job creation being the objective of support, while two of the CEBs stated that job creation was how the CEBs performance was measured. Furthermore, three of the eight interviewees referred to the ability of enterprises to leverage additional finance, using the support from the CEB.

CEB1 stated that the primary objective of CEBs was to create jobs. Expanding on this, CEB3 explained that the purpose of CEB financial support was to support start-ups and growth in existing enterprises, with the overall objective of job creation. Similarly, CEB8 emphasised that the CEB's role was to facilitate job creation. He explained that the CEB was in place to create *"an entrepreneurial environment and creating an environment where sustainable job creation is possible"* 

While CEB4 did not specifically refer to job creation as an objective, he did state that the CEB was "*expected to provide jobs with funds that have been issued*." Indeed, CEB7 stated that the purpose of support was to create jobs and that the CEB's performance was measured on the metric of job creation. Thus when they are deciding on whether to support an enterprise the level of job creation is important to the CEB.

However, while CEB2 did state that job creation was an objective, he perceived older policies to be focused on job creation to an extent that enterprises would take on unnecessary employees and overheads due to job oriented state funding. He did not believe this was a good business practice. He stated that this older style of policy did not apply to the CEB and that they would support projects which demonstrated growth potential and that jobs would be created as a results of such growth. However, he further stated that there has been a stronger emphasis on job creation at policy level during the economic downturn and that ultimately the success of the CEBs are measured on job creation.

Aside from job creation a number of the CEB interviewees emphasised other objectives of support. CEB1 explained that enterprises typically have more restrictions when solely using private finance. From his perspective CEB approval improves an enterprise's access to finance from the private sector, by providing the confidence of financiers in the business. This in turn provides enterprises with greater access to working capital and better cash flow. While CEB2 did not explicitly state the use of support for leveraging private financiers which allowed enterprises to raise funds. He stated that on occasions a bank may contact the CEB to let them know that they were referring a potential applicant, while the CEB will call banks to refer clients who are having difficulty raising finance. He explained:

"We could make a few informal calls to some of the local banks... to say we have given their details to one of our clients and they (the banks) would be interested because they know we wouldn't be sending them unviable projects"(CEB2)

However, CEB2 reiterated that the CEBs are not in place to solely finance projects but form part of a financing requirement for enterprises. CEBs support riskier projects which would not necessarily be able to raise finance from the private sector. However, CEB2 emphasised that finance is only one element of the CEB package of support.

"Coaching, mentoring, management training are equally, if not more important, than the financial piece" (CEB2)

CEB6 also emphasised the importance of the package of support and that finance was just one element of support. He explained that one of the key objectives of support was

to allow enterprises to leverage finance from other sources, access finance and also increase the pace of investment.

In summary, the primary objective of support is job creation in both agencies. All five EI interviewees stated that job creation was the objective of EI financial support, however, the findings also reveal that EI support has a more holistic objective. For example, there was an emphasis on export development (EI1), capability building within enterprises (EI2 and innovation (EI5). The ability of support to leverage private sector finance was also cited as a key objective of EI financial support through acting as a catalyst to incentivise the private sector (EI1) and through support endorsing the enterprise (EI2), by means of the due diligence process that enterprises go through in their application for support (EI3). The objective of changing behaviours was also cited, with support encouraging enterprises to take risks (EI1) and through endorsing enterprises and building confidence of an enterprise's owner/manager (EI4). However, some interviewees stressed that support in the form of a package of both financial and soft supports helps to achieve these outcomes. By comparison the CEBs offered a narrower perspective of support. Six of the CEB interviewees stated job creation as an objective of providing financial support, but CEB8 emphasised that jobs should be sustainable, while others stated that jobs were incidental of enterprise growth and development (CEB2 and CEB3). The objective of job creation was solidified by the fact that CEB performance is measured on the number of jobs that they create (CEB2, CEB4 and CEB7). One interviewee (CEB2) stressed that while the CEB was not in place to create jobs which were unnecessary, as was the case in older Irish policy, the overarching message in policy during the economic downturn was to create jobs. Aside from job creation the only other objective cited, by three of the CEBs, was that support was in place to leverage private finance through the CEB providing validation of the business (CEB1) and through networking with financiers (CEB2). Similar to EI, there was also an emphasis placed on financial support being part of a package.

## 8.6 Substitution

As explained in Chapter 4, substitution is the concept whereby financial support can potentially displace private finance. The interviewees were asked indirectly about substitution, by asking if they checked whether enterprises had sufficient finance to proceed without support and if they refused support on that basis. Only two out of the five EI interviewees made reference to substitution. EI1 stated that support was not in place to *"displace"* private finance but rather to leverage finance from the private sector. Both EI1 and EI4 referred to internal enterprise resources. They both stated that if an enterprise had substantial cash reserves, that EI would not issue financial support. EI1 explained:

"If we are simply displacing the private sector or the market then we shouldn't be in existence at all and we take a great deal of care to ensure that we are simply not displacing the private sector...If companies come to us though and if they seek financial support because they think it is a cheaper option than a bank, that is not the game we are in at all" (EI1)

EI2, EI3 and EI5 did not make any references to substitution. EI3 was of the opinion that every start-up was underfunded, so that even those with access to finance, required further finance. Similarly EI5 stated: *"for those who have who are fortunate enough to have their own money or can raise cash, they always need more money"* 

CEB1 did not mention the potential for substitution in relation to CEB support but did explain that when considering deadweight, that they would assess if the enterprise had other sources of finance available to it. However, CEB2 believed that the CEBs provide support which is not available from traditional financing sources. The objective of support is to provide finance to riskier projects.

CEB4 explained that their CEB did receive applications from enterprises and individuals who had access to funding from internal or private sources. She further explained that during the application process the CEB would try to identify if it was possible for the enterprise to fund itself, and if so it would reject the application for support. She stated:

<sup>&</sup>quot;The grant should only be given on a need basis and not on a want... there have been projects that have been turned away by the Board because they felt that the company didn't need the funding or they could raise the funding elsewhere" (CEB4)

CEB3, CEB6 and CEB7 all made reference to examining an enterprises internal funds where assessing the potential of an enterprise to proceed with a project in absence of support. CEB7 explained that some enterprises may have the ability to raise sufficient funds without grant aid. However, these enterprises are preferable for the CEBs as there is a lower risk of failure. Furthermore, he stated that those enterprises which could potentially raise all the finance required were sometimes more preferable clients:

"There are a few businesses which have come to us and they have got grant aid where they probably could have got finance elsewhere or been able to finance it themselves. But I would sometimes look at those as much better than the ones that come with no money" (CEB7)

In summary, substitution was not frequently mentioned or referred to by representatives of either agency. Two of the EI representatives (EI1 and EI4) indicated that the organisation checked if an enterprise had sufficient finances. However, the overwhelming perception from the other respondents was that enterprises were typically underfunded (EI2 and EI5) and therefore substitution would not occur. In the case of the CEBs, it was emphasised that financial support was different to private sector finance in that it was aimed at riskier projects (CEB2). However, there were some conflicting views from the CEBs. Two stated that they would not support an enterprise if it had sufficient access to private sector finance (CEB1 and CEB4) while another stated that support would be given to enterprises which had sufficient access to finance (CEB7).

# 8.7 Client Selection

As discussed in Chapter 4, selection bias is the concept where agencies select enterprises for support which demonstrate high growth characteristics. Such selection bias is evident through programmes such as EI's HPSU programme.

In order to further investigate potential selection bias by agencies, interviewees were asked to describe the characteristics of applicants for support. The most frequently mentioned feature of successful applicants for EI support was confidence in the promoter by the agency, which was mentioned by all five interviewees. The enterprise being export focused and the enterprise having a product or technology which was innovative and unique were the next most frequently mentioned features with four out of five interviewees from EI mentioning these features. Three out of the five EI representatives referred to growth prospects of the enterprise being a determining factor. Two of the interviewees stated that having matching finance or a plan of how finance was going to be raised was a determining factor. Other features mentioned included the company being profitable and the importance of adequate market research when deciding on whether to support an enterprise or not.

EI1 emphasised the importance of innovation in enterprises applying for support. He stated that the two most important factors when determining whether to support an enterprise or not were the promoter and the idea. However, he stated that innovation did not necessarily relate to sector and that some of their most innovative clients were in sectors such as traditional manufacturing. In terms of unsuccessful applicants he stated that "*We wouldn't let it get to a stage where companies fail in their application*" and that EI would not bring a company through the process of applying for support if they were going to be unsuccessful in their application. He further elaborated by stating that if a company lacked ambition or was likely to remain within the micro-enterprise size category, the agency would not allow an enterprise to put in an application for support. He further explained:

"We won't work with companies which serve the domestic market due to displacement... We won't work with companies that basically are not ambitious... we still get companies that come to us because they are looking for the grant and that is not how we work anymore. It might have been kind of the case twenty, thirty, forty years ago, but we don't just hand out funding piecemeal. It has to be tied to a long term developmental plan for the company and we try to maximise the impact of the funding" (EI1)

EI2 stated that EI representatives examine a number of features when assessing prospective clients. Firstly they examine the promoter's background and their experience and also rely on the promoter's ability to articulate the business proposition. They also examine the market and who the potential customer base may be for the enterprise, stating *"if there is no feedback from the market place it is very difficult to see how a project is going to succeed"*. EI2 also spoke about the importance of the technology behind the enterprise and the importance that they have a unique product or

service offering. Having a plan in place of how the enterprise was going to raise finance was also an important feature. Finally EI2 outlined the importance of management teams or access to appropriate expertise across all of the business activities:

"(We examine) what kind of team there is: all the better if it is a cross functional team... will they be bringing people from the outside because they can bring value in terms of their networks and the advice and the expertise? Because no one person is going to make a business run on its own. They are going to need access to a whole range of functional support along the way."(EI2)

Similarly, EI3 emphasised the importance of the promoter of the enterprise, stating that when assessing a potential client they examine the ability of the entrepreneur to develop an export focused business and their experience. In addition to the promoter EI staff also examines the proposed market and customer base, the uniqueness of the technology behind the business, citing displacement as a key concern for the agency. They examine the "*scalability*" of the enterprise and its growth potential. EI3 stated that the ability to raise matching funding was a critical aspect. Finally, he stated that EI has a preference for investing in teams rather than individuals:

"We typically like to invest in management teams. There is always an issue for very strong technologists capable of developing the proposed technology, but what will he do next or what will she do next? Have they a plan to develop an export market and are they capable of developing an export market? Those sorts of questions tend to be big issues. Other issues tend to be around securing the matching funding because from our perspective that is a big issue. We are not prepared to be the sole risk taker." (EI3)

EI4 was primarily concerned with the promoter and the management team. He stated that he looks for promoters with "vision" and that they are knowledgeable about the product they are offering and the market to which they are selling. He stated that a good management structure of the enterprise is important and should consist of people with capabilities in areas such as finance and sales and marketing. Finally he spoke about the importance of financial management of the enterprise:

"I have to see that they are well managed from a financial point of view in the sense that they have to do financial statements. It is good to see that they are doing quarterly management accounts. But the key issue is that they manage their cash well and that they are profitable.

They have to be profitable. It doesn't matter how small, but they have to be profitable. It is very hard to invest in an organisation that is losing money" (EI4)

However, EI4 did state that companies which have had inconsistent financial performance due to innovation and R&D or due to engaging in other aspects of business development are preferable to those companies which remain stagnant.

EI5 emphasised the importance of the promoter, explaining that even the most innovative propositions will not be supported if the promoter is perceived as being the wrong person to lead the project, or if there is insufficient market research. He explained that there were three *"pillars"* which they examined; finance, commercial viability and technology. He further explained that promoters rarely have sufficient capability in all three of these aspects and so the agency has a preference for teams. Finally EI5 explained the importance of exports:

"We are looking for products or services that can be successful in an export market so we have to think to ourselves 'what's good about this product or service?" (EI5)

Equally, all eight CEBs emphasised the importance of having confidence in the promoter when selecting clients. The next most frequently cited features of successful applicants were export potential, market potential and avoidance of displacement.

CEB1, CEB4 and CEB7 stated that they will support enterprises involved in manufacturing, with exports or with export potential. CEB4 stated that this was due to Department of Jobs, Enterprise and Innovation guidelines. CEB2 offered further detail and explained that while their agency does not assess any particular attributes of an applicant enterprise, they are restricted on who they offer financial support to by government policy. CEB2 perceived this to mean that they could not support enterprises in sectors where there was already a high capacity of similar activity within the enterprise population (i.e. potential for displacement). The main emphasis of the CEB was on enterprises which can trade internationally. However, there were exceptions to the above where they were targeting unemployed people or women entrepreneurs.

CEB1 stated that they also assess the viability of the business, the financials of the business and check if there is finance in place to fund the idea that they are proposing. They also examine sales projections to assess if these are realistic or not. Similarly, CEB2 explained that for enterprises in qualifying sectors the CEB examines aspects of the business plan, which must summarise the business proposition, identify the market, identify potential competition and provide financial projections. CEB3 explained that applicant enterprises would be assessed based on commercial viability of the enterprise, the market for the enterprises product or service and enterprise finances. Applications are typically rejected due to a lack of market research. CEB3 also explained that the CEB wanted to support enterprises which demonstrated the highest growth potential:

"Companies that we want to put money into would be obviously first of all businesses in the eligible sectors. Second of all they would be businesses with the potential for high growth and by that I am not necessarily talking about the EI criteria. I am talking about businesses that are going to create employment... the biggest 'bang for our buck' (return on investment) are the businesses that are going to create employment" (CEB3)

In terms of successful applicants within these sectors CEB4 emphasised the importance of commercial feasibility along with sufficient market research to support the proposal. She also explained the importance of whether the project is going to be able to secure the finance necessary to meet the objectives of the business plan. CEB6 stated that the CEB expected to see a feasible and logical business plan and evidence that the product/service supplied by the applicant enterprise would be filling a customer need. He further explained that typically enterprises might be rejected due to CEB perceived flaws in their business plan but would be given the opportunity to correct these and reapply. Furthermore CEB7 stated that a perceived poor business plan and lack of market research would lead to applicant enterprises being rejected for support. Both CEB7 and CEB8 stated that with respect to the enterprise, it must be perceived by the CEB as being sustainable and scalable. In terms of enterprises which are rejected for support, CEB8 explained that if there was potential for displacement, if there was no market gap apparent to the CEB, or if the CEB perceived the promoter not to be suitable for carrying out the project, then they would not support it. CEB5 also cited displacement as a reason why the CEB would not support the business.

CEB1 explained that the CEB having belief in the promoter of the business is essential and that even "bad business ideas" can succeed with a good promoter. Similarly, CEB2 stated that the promoter was potentially more important than the business proposition. In his view client selection was very much about the promoter's ability to "convince" the CEB to fund the enterprise:

"In relation to the applicants and the promotors themselves that becomes, in our universe, as important or even more important than the actual business proposition. So we are looking for characteristics of good communication skills, integrity, drive and determination, and a reasonable skill set to match the business proposition" (CEB2)

CEB3 stated that successful applicants for CEB support typically have a track record of working in the same industry in which the enterprise is operating in or have a track record in either running an enterprise or working at a senior level within an enterprise. The CEB also places an emphasis on the promoter's qualifications and the experience of the team which would be working on the project. However, CEB3 further explained that applicants are assessed on more tacit measures such as their enthusiasm, level of commitment, vision and the perceived level of effort and resources that the promoter is willing to put into the project. Similarly, CEB4 stated that in order to be successful in their application, they need to demonstrate motivation, confidence and be able to articulate both the business proposition and the product. However, it was CEB4's perception that there were no "perfect entrepreneurs" and that they all had weaknesses, but that it was important that there was a team involved to allow a project to succeed.

CEB5 also emphasised the importance of the CEB having confidence. This confidence related to the promoter, the business model and ability to raise matching finance. CEB6 explained when assessing applicants he sought "passion and attitude" from applicant entrepreneurs. He further stated that in cases there are promoters/entrepreneurs who are too rigid in their thought process and will not adopt these suggested changes. In these cases the enterprises will not be supported. Finally, CEB6 stated that the entrepreneurs needed to demonstrate good business acumen, particularly with regard to finance and realistic time scales. Likewise, CEB 7 stated that the CEB seeks to support entrepreneurs which it perceives to be "passionate" about the enterprise and those which can demonstrate the ability to grow the business. They also examine if the promoter has

a track record in the business area in which the enterprise operates. CEB7 further explained that the CEB also has a preference for promoters who use their own finance for the enterprise and do not solely rely on bank finance and grant finance. CEB8 held the perspective that the CEB was supporting "the person" as much as it was supporting the idea or the business. In that regard the CEB seeks to support individuals which display "entrepreneurial behavioural traits". He further explained that the entrepreneur needed to go beyond identifying a gap in the market and actually be able to articulate the benefit of filling this gap and convince the CEB of the merits of the their idea.

In terms of unsuccessful applicants, CEB4 stated that these were typically promoters who had good ideas or concepts but were not able to demonstrate the market potential. Another challenge was for start-ups which had a good idea but had a large financing requirement to start-up.

"The scale of the project might be so large that access to funding to support that enterprise won't be achievable and if so then it is not something that we would support because obviously it is not going to survive" (CEB4)

However, CEB5 remarked that with smaller scale projects and lower volumes of funding, that the CEB would be "willing to take a chance" and fund projects which did not meet the criteria required for larger projects.

On the other hand, according to CEB1, ultimately enterprises are selected for support based on whether they will create jobs. CEB1 also explained that a lot of these factors are judged based on the perception of the CEB staff and tacit assessment, while also stating scepticism about formulas and automated selection procedures:

"I have been working at this for a long time. You would talk to someone and you would know... I've seen the 'ticking box formulas' and I have seen the tools that people make up. You press a button and it spews out information... but it doesn't work an awful lot of the time because those tools are just not picking up on what you pick up when you are put in front of someone."(CEB1)

In summary, EI interviewees demonstrated a lot of commonality in their responses regarding client selection. The agency's perception of the promoter was among the most

frequently mentioned criteria for successfully applying for support. The other common features of a proposal upon which selection was based included market potential and export potential, innovation and having finance in place. The presence of a team rather than a single promoter was also preferable. Interestingly, it was stated that enterprises would not be brought through the application process if it was perceived that they would not succeed in their application (EI1). Another interesting aspect was that applicant enterprises might be selected for support even if they have a poor financial position, but if that position was perceived to have been as a result of innovation (EI5). Interestingly, sector was not regarded as being an important feature of selection (EI1).

Similarly, CEB representatives all stated that the characteristics of the promoter were the most important aspect when selecting clients. Less frequently cited features included export and market potential, job creation and credible financial projections. In contrast to EI, the presence of a team to run the business was only cited twice (CEB3 and CEB4) as being part of selection criteria. However, given that the CEBs only support micro-enterprises, it is not surprising that teams would be a less common feature compared to the enterprises which are supported by EI. Having finance from the private sector was also part of the selection criteria (CEB4 and CEB5) with one interviewee citing the importance of the promoter investing their own money (CEB7). Interestingly, the CEB representatives' experience, perception and judgement were considered as important features of the selection process as opposed to any particular formula (CEB1). In a similar vein, tacit features of the promoter and enterprise are regarded as important in the selection process (CEB3).

### 8.8 Due Diligence in the Application Process

Due diligence conducted by the agency on applications for support is regarded by agency representatives as one of the most important aspects of support as it helps address market failure by providing signals and confidence to financiers. From the perspective of this research due diligence and the application process were examined to assess what types of information the agencies seek from the enterprise and how they validated it, in order to understand if there is potential for information asymmetry between the agency and the applicant enterprise.

Both EI1 and EI2 placed an emphasis on financial aspects of the enterprise. EI1 stated that the main concern from the perspective of EI was that applicants could raise the necessary finance and could provide sufficient information to support financial projections for the enterprise. He stated that these financial considerations were with regard to the enterprise and that the agency did not examine the personal wealth of the promoter(s). He stated that the process was very rigid and that they did not make exceptions in order to maintain the integrity of the system. In terms of validating information he stated that the agency relies on the honesty of promoters but was confident that where information was incorrect, that the agency would discover it:

"Often you are dependent on the information that the company provides. We have a very clear rule in EI about misinformation. If a company is telling lies, we generally find out... any funding that we provide is in the form of a legal agreement so if they don't adhere to that legal agreement there have been instances where we will seek our money back" (EI1)

According to EI4, the application form for financial support includes the business plan, financials of the enterprise, information about the markets which the enterprise will be involved in and details about what the enterprise and promoter is expecting to achieve over a given period of time. EI2 further explained that as part of the due diligence process, the agency consults with customers or potential customers, potential investors and those with expertise in the technology behind the enterprise. He stated that EI has a lot of technology expertise "in-house" but where they require it they will consult with experts from outside of the agency. Similarly, EI4 explained that EI checks as much of the information provided as possible. They use market advisors to assess geographic markets, technology advisors to assess the technology behind the project or enterprise and the development advisor develops an overall view to assess if the project will be commercially viable.

As well as the highly detailed application forms, EI3 explained that when deciding whether to bring an application for support forward or not, that the decision was based on tacit measures and on the experience of the development advisor. Furthermore, EI4 stated that it was up to the promoter to convince EI that the project is worth investing in: "Outside the application process, I think the key challenge for the company is to be able to build a relationship with EI and say 'I am worth investing in for the future'. They need to be able to convince EI that they have growth and that they have the potential for growth" (EI4)

EI5 stated that he did a lesser amount of due diligence for his role within the organisation. EI5 primarily did background checks on the promoter and advised prospective clients on what information they should have to be able to go through the due diligence process at later stages of the client's application. These latter stages involved assessing the projected financials, evaluating the technology and examining the market potential. These checks are all completed by specialist EI staff.

CEB1 explained that much of the information required for due diligence is contained in the application form for support. They will examine the promoter's CV to ensure that they have relevant experience and qualifications which match to the project specification. They will also make contact with the enterprise's accountant, where applicable, and external bodies such as the Department of Social Protection, where relevant. Similarly, CEB2 explained that they will seek items such as tax clearance certificates and PRSI numbers of employees for employment grants. In the case of existing businesses they will seek accounts and in the case of limited companies, check the relevant reporting facilities. While CEB2 stated that they did not do background checks on the individuals, CEB3 stated that they complete Company Registration Office (CRO)<sup>24</sup> checks on existing enterprises and internet searches on the individual promoters. Similarly, CEB6 stated that in the case of existing companies, the CEB relies on resources such as those available from the CRO. Similar to CEB1, CEB6 also stated that they would also request that the enterprise's accountant validates any financial projections contained within the business plan.

CEB5 emphasised the importance of checking that matching finance was in place from other sources during the evaluation of applications and also stated that the market size and market potential was another important feature which would be checked. By comparison, CEB7 offered further detail and listed the different types of information that were to be supplied by the promoter in the application for funding from the CEB.

<sup>&</sup>lt;sup>24</sup> The CRO is the body responsible for registering companies in Ireland

This included information about the market and prospective customers, the level of investment by the promoter and information about where the remaining finance would be sourced, the number of jobs to be created, and financial projections. The CEB validates information through face to face meetings with the promoter and using items such as loan approval letters from banks and examining if the promoter has been a company director. Similarly, CEB8 also listed some of the types of information that was sought from applicants for funding, which included backgrounds of the promoter and people involved in the project, financial performance to date and financial projections, and demonstration of the market gap and market potential.

CEB5 stated that they would make contact with banks and other sources of finance but only to ensure matching finance was in place. However, CEB2 stated that the CEB did not make contact with banks or other financiers. In the case where an enterprise is required to raise matching finance, this has to be completed before the CEB funds could be drawn down, thus according to CEB2 there would be no point in doing this.

"Let's say there matching finance had to be in place; it is either in place or it is not in place. They can't get our money until they could demonstrate that they actually have achieved this" (CEB2)

Similarly, when asked if they made contact with any third parties, such as banks, to validate the information, CEB3 explained that they do not and that it could "be considered a weakness in our system".

CEB2 stated that as part of the evaluation of applications the CEB will make a "subjective" judgement on the skill set of the promoter as to whether he or she has the capability to realise the business proposition. Similarly, both CEB3 and CEB4 stated that, in addition to evaluating hard data, they use personal judgements when evaluating applications. CEB3 explained that they typically make personal judgements on the promoter's credentials and personality. The CEB also makes personal judgements on the commercial viability of the project. Similarly, CEB4 stated:

<sup>&</sup>quot;We have been assessing individuals for 20 years so you know you do get to a stage where you know the right questions to ask" (CEB4)

Furthermore, CEB6 explained that the CEB leverages their experience. As they have dealt with enterprises in many sectors before, they are aware of many aspects such as product margins. He did however concede that the application consists of a projected business plan and as such no one can be certain about the future. Ultimately confidence in the promoter is the key aspect for the CEB:

"As long as they have the fundamental principles of entrepreneurship in there, they understand the risk factors, they have looked at the whole area of SWOT analysis... thought about what the issues are for their business, then basically we would use that."(CEB6)

Furthermore, CEB7 stated that the CEB could not validate everything and that they relied on the promoter's word.

"Validation is based on CEB resources to be honest with you. So we would generally be taking people at their word and the information they are providing." (CEB7)

Similar to CEB7, CEB8 stated that they are taking the promoter at their word. However, the CEB does employ its own knowledge and experience of dealing with enterprises in similar areas, to understand if the project is feasible. CEB8 made no reference to any contact with financiers. However, CEB5 added that checks would be more comprehensive where the investment by the CEB was of greater value.

After the interaction between the CEB staff and the promoter, the applications for support were presented to an evaluation board by a CEB staff member. CEB4 stated that evaluation was conducted by the board on the information contained in the application and business plan. It was up to the CEB staff to present any information outside of the business plan, such as the promoter's characteristics, to the board. In terms of validation of information CEB4 stated that they may contact references contained in the business plan and potential customers and suppliers. She further stated that as the CEB was operating in a small area and the board was comprised of individuals working in the locality, that there would be a lot of local knowledge in the board and that they may be able to verify much of the information in the business plan themselves.

In summary, the due diligence that is carried out by EI includes the use of internal advisors to assess features of the enterprise's proposal such as validating that a market exists for the enterprise and ensuring the technology underpinning the enterprise's product or service is viable. External technology experts are also consulted, as are existing and potential customers of the enterprise (EI2). However, due diligence is also based on the experience of the DA (EI3) and on trust by the agency in the promoter (EI1). Furthermore, it is up to the promoter to convince the agency that they have a good proposition (EI4). By comparison, the CEBs appear to be somewhat less formal. The CEB representatives claimed to judge the promoter of the enterprise, but would also examine the accounts of an enterprise. While the CEB interviewees did not claim to have access to external expertise, they relied on local knowledge of the Board (CEB4), used personal judgement (CEB6) and also relied on trust in the promoter (CEB7). Interestingly, there was a conflict of opinions with regard to contact with banks. While one interviewee (CEB2) stated that they did not make any contact with an enterprise's bank, another (CEB5) stated that they did, but only to ensure any necessary matched funding was in place. One interviewee stated that they did not check with a bank or any third party to examine if an enterprise's access to finance, which was described as a weakness in the system (CEB4).

#### 8.9 Deadweight

When asked about deadweight, all five EI interviewees had previously heard of the concept and understood its definition. EI1 explained that the agency would not give funds to an enterprise which did not need it. He further stated that the agency would do checks on the applicant enterprise to ensure that it did not have sufficient financial reserves to be able to fund the project themselves but also stated that they were reliant on information provided by the applicant. The question of whether a project would proceed or not without support, would also be raised by the Investment Committee during the application process. Finally, EI1 mentioned that projects are also put through an economic model to establish the cost-benefit for the state when investing in a project. He stated that in this model there is a provision for deadweight. However, EI1 conceded that it was a very difficult concept to measure and that some deadweight would always occur:

"You ask (whether they would proceed with the project without support) but you don't know. This is one of the issues. This is where you are taking the punt (risk)... you try and minimise it, but you are never going to minimise it to the n<sup>th</sup> degree" (EI1)

EI2 stated that the agency was "conscious" of whether a project would proceed without support. However, he further explained that if the company is within EI's remit and if it is going to create jobs and exports, then the agency was not concerned about it.

EI3 explained that the agency would be suspicious that a project may proceed in the absence of intervention if a "high net worth individual" was seeking support for it. However, he did not believe that deadweight was relevant for the majority of applicants:

"The reality is most HPSUs are underfunded. There are very few examples of start-up companies, that wouldn't need some additional funding. For established companies the issue is slightly different in that typically what the promoters will say is that 'We have got an established business and it is going great here, but if the State does not give us some support it is a mobile project and it could be started somewhere else'"

EI4 did not believe that deadweight was a significant challenge for the agency. Similar to the other EI representatives, it was his view that a company which was "cash rich" would not get support. He did not believe that enterprises would approach EI if they did not require support, stating

"They wouldn't be talking to us if they could do it on their own! If a company is growing or developing or doing something to the market and they were aware that they could do it on their own, they won't come to EI" (EI4)

EI5 explained that some enterprises that approach them for support may have strong balance sheets and reserves or may be part of a larger company, and that it is difficult to support them in such as case. However he further explained:

"The answer is behavioural change. If you have a company that isn't exporting, they may not feel that it (exporting) is necessary for them or it may not be necessary for them. But if we can get them thinking about it and making a proper investigation into looking into the good and bad of it

and then they start exporting and then they create jobs from that, those jobs would have never been created if we hadn't got involved. So in that particular case, they don't need the money, but they might need a push in the right direction or at the very least they might need to be given some support in doing a feasibility study around the behavioural change" (EI5)

EI1 also referred to a similar scenario citing an example. He explained that in some instances a company may have all of the necessary resources and capabilities to engage on a given project. However, while a senior member of an enterprise may wish to engage in the project, the board of directors of the company may not. He explained that by EI backing the project, it assists in changing the enterprise's behaviour.

Seven of the eight CEB representatives were familiar with the concept of deadweight. CEB1 stated that they would examine deadweight primarily with respect to the enterprise's ability to fund itself. The CEB examines the other sources of finance which are being used for the project and if the project has involvement of high net worth individuals or other successful enterprises, they would be unlikely to back the project.

"Deadweight can have other elements to it as well, but finances would be a major one that you would be looking at on deadweight" (CEB1)

CEB2 stated that it was a requirement of Government Policy that the CEBs measured for both deadweight and displacement when evaluating applications. However, he stated that these were very "subjective" concepts. He also stated that while the CEB does try to take deadweight into account, it was focused on supporting projects, stating:

"The business part of me says if somebody comes in and highly impress you and you genuinely believe this person has the ability to really make things happen, why shouldn't you be supporting that individual, as distinct to taking a bureaucratic approach that this person is engaged in something that represents deadweight." (CEB2)

CEB3 was aware of the concept of deadweight and did believe that they measured it. She described it solely in terms of finance availability, stating citing the example that the CEB would examine the enterprises balance sheet to assess availability of internal funds to finance the project. However, CEB3 further explained that such an assessment needs to be considered in the context of the project being undertaken by the enterprise: "They may have some resources of their own, but by adding to those resources we are going to accelerate their development plan" (CEB3)

When asked about deadweight, CEB4 reiterated that grants were issued based on need and not want. If the CEB perceives the enterprise to have sufficient finance to achieve their objectives, then support is not issued, stating:

"We would have a good idea on the various sectors, what kind of funding would be required, and if this individual has access to that type of funding, and then maybe we should step back" (CEB4)

However CEB4 did not perceive retrospective evaluations of deadweight to be accurate. She believed that many enterprises would specify that they required grant funding when applying for support, but in retrospective studies would state that they could have proceeded without support (i.e. Deadweight). She explained:

"When you ask the question (as to whether a project could be carried out without support) at two different points in time to an individual, sometimes you can get a different answer. I suppose our role here is try to assess the projects that are there" (CEB4)

CEB6 was aware of the concept of deadweight and perceived it solely from the perspective of finance. He stated that it was possible to measure for it in the case of an existing enterprise and that if such an enterprise had a large amount of cash reserves they would question the enterprise's ability to proceed with the project without support. However, he stated that where such an enterprise had large cash reserves, they would examine projected cash flows and the level of investment required by the enterprise. If an enterprise needed large levels of investment, it would use those reserves and therefore potentially still require support. CEB6 explained that his other perspective of deadweight was the promoter's ability to support the business using their own personal wealth. CEB6 explained that they had no way to measure this on the 'current' CEB system.

Similar to the other CEB representatives, CEB7 solely viewed deadweight in terms of finances. He stated that understanding if a business could possibly do without the funding was a very difficult question to answer. He further explained that deadweight was a very difficult concept to measure. However, he stated that enterprises had been rejected for support by the CEB as the board held the belief that the enterprise did not require the funding. He further explained that:

"If it (supporting an enterprise) is going to help us create a job or jobs in our county then we would be looking on it positively to try and help them... if they are eligible for funding why not apply. And if they are going to create jobs why not grant aid them." (CEB7)

CEB8 understood the concept of deadweight, but stated that in most cases it was not perceived as a challenge by the CEB. The CEB would examine an applicant enterprise's cash flow and reserves to determine whether a project could proceed or not in the absence of support. However he further stated that:

"It wouldn't be something that we would be overly conscious of enforcing... in most cases it is our experience that deadweight isn't a major issue" (CEB8)

In summary, representatives from both agencies were familiar with the concept of deadweight. In the case of EI, despite the awareness of the concept, there was a degree of apathy as to how important it was (EI3 and EI4). It was recognised as being a difficult concept to measure and could not be eliminated (EI1), but that there would be a reluctance to issue support to enterprises with large reserves (EI3 and EI4). However, while conscious of deadweight, there was an attitude that if an enterprise would grow, it should be supported (EI2) and that by providing support, it might encourage enterprises to engage in activities which they would not otherwise do, even though they had the finances to do them (EI1 and EI5). There were broadly similar views from the CEB perspective. The concept was described as subjective (CEB2) however, there were efforts to try to curb its effect. While one interviewee (CEB1) stated that they would not support high net worth individuals, another stated that they had no way of checking such information (CEB6). The CEBs would however examine the cash reserves of an enterprise (CEB3, CEB6 and CEB8) to examine if an enterprise had sufficient finance to proceed without support, or simply use their personal judgement based on experience

(CEB4). However, similar to EI, there was some apathy toward its presence, with the CEB taking a positive view on enterprise growth, rather than being concerned with deadweight (CEB2 and CEB7). Finally, one interviewee (CEB4) questioned the accuracy of retrospective questioning on deadweight.

# 8.10 Chapter Summary

This chapter has presented the findings from interviews conducted with representatives of Enterprise Ireland and the City and County Enterprise Boards. The findings were categorised according to key areas relating to topics discussed in the literature review and highlighted in the theoretical framework. The findings revealed that the primary rationale for providing support was market failure. Similarly, according to agency representatives' perceptions, enterprises primarily seek support to address a shortfall in finance. However, the objectives of support are wider reaching and include supporting growth in exports, innovations and most importantly jobs. It was discovered that job creation is also the primary concern when deciding on whether to support an enterprise or not. Furthermore, agencies' performances are measured based on job creation. Enterprises were also selected for support primarily based on their growth potential and commercial viability. These aspects of the enterprise were the core focus of the due diligence process. The interviewees demonstrated a familiarity with the concept of deadweight but demonstrated a lack of understanding of how to eliminate it. There was also a degree of apathy regarding deadweight from a number of the interviewees.

This and the previous two chapters have presented the findings from each of the three dimensions of primarily research. The next chapter brings the key findings from these three phases together, to develop a comprehensive view of the system of enterprise support in Ireland.

Chapter 9 - Developing a Holistic Perspective: Summary and Cross Analysis of Findings

#### 9.1 Introduction

The previous three chapters have presented the findings from this study in depth, from each of the three elements of primary research. The findings from the survey of enterprises and interviews with enterprise owner managers were from three cohorts of enterprise respondents:

- Supported enterprises: These were the enterprises that requested financial support from Enterprise Ireland (EI) and/or City and County Enterprise Boards (CEBs) and received support from these organisations;
- (ii) Rejected enterprises: These were the enterprises that requested financial support from Enterprise Ireland (EI) and/or City and County Enterprise Boards (CEBs) but their request for support was rejected by these organisations; and
- (iii) Non-applicants. These were enterprises that did not request any financial support from Enterprise Ireland (EI) and/or City and County Enterprise Boards (CEBs).

Findings from interviews with representatives of the two main state sponsored enterprise support agencies (Enterprise Ireland and the City and County Enterprise Boards) were also presented. This chapter provides a brief summary of the key findings from each chapter, comparing and contrasting the information gathered. The findings are presented according to the key concepts which underpin this thesis including Market Failure, Selection Bias, Appropriateness of Support, Substitution, Rent Seeking, Information Asymmetries, Deadweight and Additionality.

### 9.2 Market Failure

As presented in Chapter 4, Market Failure is the key rationale for supporting enterprises and, in the context of financial support, refers to lack of finance for enterprises. The summary findings related to Market Failure are presented in Table 9.1.

Market Failure – Key Finding	gs
Survey	<ul> <li>Approximately 33% of supported enterprises agreed that they had difficulty raising finance in the past, compared to 58% of rejected enterprises.</li> <li>Only 34% of non-applicants agreed that they had sufficient finance to not require support.</li> <li>The majority of supported and rejected enterprises agreed that raising matching finance was difficult.</li> <li>Only 9% of non-applicants agreed that they would have had difficulty raising matching finance.</li> </ul>
Enterprise Interviews	<ul> <li>Three out of five supported interviewees would not have had access to external finance had support not been available (SUP2, SUP4 and SUP5). One did not specify (SUP3).</li> <li>Two out of three rejected enterprises did not have access to external finance after support was rejected (REJ1 and REJ2). The other did not specify.</li> <li>Two non-applicant enterprises expressed difficulty in raising external finance (NONAP2 and NONAP3). The other did not require external finance, instead relying on internal finances.</li> <li>Market failure was apparent for enterprises involved in R&amp;D (SUP2 and NONAP2) and Life Sciences (SUP4 and NONAP3).</li> <li>There was a perception that support could be used to leverage (SUP4 and REJ1) or complement private finance (NONAP2).</li> </ul>
Agency Interviews	<ul> <li>All EI interviewees stated that the rationale for providing support was to address the shortage of finance for enterprises, but that applicants needed to be able to raise matching finance.</li> <li>Five out of eight CEB representatives stated that the rationale for providing support was to address the shortage of finance.</li> <li>All five EI interviewees perceived enterprises to seek support due to a shortage of finance, but that this was not the only reason.</li> <li>The perception is that support exists to supplement private finance and to leverage finance from the private sector.</li> </ul>

#### Table 9.1: Key Findings relating to Market Failure

There was a considerable amount of commonality of responses across all three dimensions of the research with regard to market failure. According to the interviews with agency representatives, the primary rationale for providing support was to address market failure, or specifically to address the shortfall in finance for owner/managers to grow and/or develop their enterprises. Indeed the majority of supported enterprises surveyed agreed that they had experienced difficulty raising finance in the past. The survey findings complemented supported interviewees, three of which did not have access to external private finance.

However, both rejected and non-applicant cohorts also indicated a lack of finance but did not receive support. The survey findings were supported by the interviews of owner/managers, whereby the majority of interviewees in both rejected and non-applicants stated that they did not have access to external finance.

The findings also revealed how financial support overcomes market failure. According to the agencies, rather than solely filling the shortfall in finance, financial support is used as a catalyst to generate financial inputs from the private sector through leveraging. This was only cited by one of the supported enterprise interviewees, but the potential for using support to leverage finance was also recognised by rejected and non-applicant enterprises. However, in order for leveraging to work, applicants for support must be able to prove that they can raise finance from the private sector to match the financial support from the agencies. Survey respondents from both supported and rejected cohorts agreed that raising such matching finance was difficult.

### 9.3 Selection Bias

Selection bias is the concept whereby agencies may select high growth enterprises to support, which are atypical to the general enterprise population, thus these enterprises achieve high growth regardless of support. In order to test selection bias, characteristics of supported and unsupported enterprises were compared in the survey. The selection criteria used by the enterprise agencies during the application for support were also examined. Finally perceptions of enterprise owner/managers were gathered during the enterprise interviews, regarding the application process. These findings are presented in Table 9.2.

Analysis of the survey data found that enterprises which had applied for support were larger (in terms of numbers of employees) than those which had not applied for support. However, this measure was taken at the time of the survey, after supported enterprises had completed the supported projects. This may account for some or all of the difference. However, there were no significant differences found between applicants and non-applicants based on sector, location or age of the enterprise. Similarly, supported enterprises were larger than rejected enterprises, but there was no difference between the two groups based on age. Thus no selection bias, based on the metrics analysed, could be determined.

Selection Bias Key Findings	
Survey Enterprise Interviews	<ul> <li>Applicants for support were larger (in terms of number of employees) than non-applicants.</li> <li>Applicants were more likely than non-applicants to be located in an incubator at some point in their development.</li> <li>There were no statistically significant differences between Applicants and Non-Applicants based on sector, location or age.</li> <li>Supported enterprises were larger than rejected enterprises (measured after receipt of support)</li> <li>All enterprises in the sample were considerably different in terms of size, age, stage of development and type of support applied for.</li> </ul>
	<ul> <li>SUP4, a life sciences enterprise, perceived Enterprise Ireland to have a preference for IT based enterprises because they yielded faster results. They were refused further funding because they would not hire sufficient extra employees.</li> <li>SUP2 perceived EI to have specific "templates" which businesses needed to fall into which did not suit technology businesses.</li> <li>SUP1 and SUP3 stated that they had to make a strong case for support in the application process.</li> <li>Due to lack of feedback regarding their applications, it is not possible to determine why REJ1 was rejected for support, however she perceived EI to emphasise the need to hire more employees in order to secure support. REJ2 was rejected due to lack of perceived commercial viability by the agency and lack of credibility, but again stated that there was limited feedback. REJ3 was rejected due to ineligibility.</li> <li>NONAP1 perceived EI to be disinterested in electronics enterprises and to be inaccessible to smaller enterprise was too small.</li> <li>The perception of all three cohorts of enterprise interviewees was that the application process was too time consuming. In particular the non-applicant interviewees perceived the application process to be 'off putting'.</li> </ul>
Agency Interviews	<ul> <li>El clients are selected based on confidence in the promoter and the business, with an emphasis on the promoter and management team, the market and export potential and the technology behind the business</li> <li>Sector was not cited as a criterion for selection by the majority of interviewees and in one case (EI1) deemed it as not being important.</li> <li>Enterprises which did not have consistent financial performance would be selected if they were engaging in R&amp;D (EI5).</li> <li>CEB clients are primarily selected based on confidence in the promoter and market potential.</li> <li>Only one CEB (CEB4) cited management teams as being important.</li> <li>Emphasis on tacit measures and perceptions by the agencies in due diligence and client selection.</li> <li>Would not bring potentially unsuccessful applicants forward in the application process (EI1)</li> </ul>

#### Table 9.2: Key Findings relating to Selection Bias

This finding is not surprising given the selection criteria cited by agencies. Typically enterprises are selected for support based on more tacit measures, such as the agency having confidence in the promoter and, to a lesser degree, in the management team, export and market potential and the technology behind the business. Interestingly the CEB interviewees cited fewer selection criteria, but again, were primarily concerned with having confidence in the promoter. Furthermore, one of the interviewees indicated that they would not bring applications through the full process if they did not believe the application would succeed.

However, such selection criteria are in contrast to the perceptions of the enterprise interviewees. There were instances where the agencies were perceived to select based on criteria and the potential numbers of new employees which could be created by the enterprise.

Another interesting aspect of selection can be interpreted from survey and enterprise interviews. In the survey, those enterprises which had previously been in an incubator were more likely to apply for support. As most incubators in Ireland are either operated by or linked to one of the agencies, resident enterprises are likely to be familiar with the agencies. In the enterprise interviews, the burdensome nature of the application process was cited frequently by supported and unsupported enterprises, and non-applicants. Yet, the supported and rejected interviewees went ahead with the application. Furthermore, some of the supported interviewees stated that it was up to the applicant to make a strong case in their application for support. All of these findings indicate an element of self-selection on the part of the enterprises.

# 9.4 Appropriateness of Support

A number of measures were included in the survey to determine if supports were suited to the requirements of the enterprise and their projects, or if there was a mismatch between agency goals and enterprise requirements. The appropriateness of support was probed further in the enterprise interviews, and is compared to the objectives of the support agencies which were gathered during the agency interviews. The key findings are presented in Table 9.3.

The majority of both Supported and Rejected enterprises agreed that they had difficulty in finding suitable supports, while both Rejected and Non-Applicants perceived support to be too restrictive as to what it could be spent on.

Appropriateness of Support	Key Findings
Survey	<ul> <li>Approximately 65% of supported and 83% of rejected enterprises agreed that finding suitable supports was difficult</li> <li>Approximately 66% of rejected and 57% of non-applicant enterprises agreed that support was too restrictive as to what activities the support could be spent on, compared to 36% of supported enterprises.</li> <li>Non-applicants demonstrated a lack of awareness of the availability of suitable supports</li> </ul>
Enterprise Interviews	<ul> <li>Two of the supported enterprises did not believe that the agencies understood their businesses/sectors (SUP2 and SUP4). Similar perceptions were held by rejected (REJ1 and REJ2) and all non-applicant enterprises.</li> <li>One supported enterprise stated that support had become less flexible in recent years (SUP1). Another supported interviewee found the supports very suitable (SUP5).</li> <li>There were limitations on securing second rounds of funding even though viable projects existed (SUP1)</li> <li>Interviewees referred to suitable support not being available for enterprises which had a certain number of employees (REJ1 and NONAP3).</li> <li>Emphasis on job creation (REJ1, SUP4 and NONAP1) and cost per job measures (SUP4)</li> <li>A gap in support is perceived to exist between CEB and EI support (NONAP2 and NONAP3)</li> </ul>
Agency Interviews	<ul> <li>Emphasis on job creation as an objective of support and on cost per job when deciding on whether to support enterprises.</li> <li>Unnecessary job creation is avoided</li> </ul>

#### Table 9.3: Key Findings relating to Appropriateness of Support

Further indications that the support was inappropriate for a number of enterprises were found from the enterprise interviews. A number of supported enterprises believed that the agencies did not understand their businesses or that the support did not suit their sector. One supported interviewee in particular believed that support was not suited to achieving longer term goals and as a result, enterprises in the life sciences sector could not get sufficient support relative to IT enterprises which would achieve commercial targets faster. Conversely, another enterprise interviewee perceived the agencies not to understand the IT sector. Furthermore, some of the rejected and non-applicant enterprises stated that CEB support was not suitable for their enterprise, yet they were too small for Enterprise Ireland to deal with.

Finally, a number of enterprises perceived the agencies to be primarily interested in job creation and also to base decisions on cost-per job measures, which were not suitable metrics for the type of projects which the enterprises were trying to implement. From the agency perspective, their primary goal is job creation. Furthermore, when assessing applications for support, agencies will base the value of support on the number of jobs

being created rather than necessarily on the requirements of the project/enterprise. As such enterprise goals and agency goals are in juxtaposition.

### 9.5 Substitution

Substitution is the concept whereby financial support crowds out or displaces potential investment or finance from the private sector. This concept was examined during all three stages of primary research. The key findings are presented in Table 9.4. There was a general perception emerging from the survey among supported and rejected enterprises that receipt of support enabled a reduction in private investment. Furthermore, 9% of supported enterprises agreed that they would have had sufficient finance to proceed with their projects had support not been available indicating that the support they received substituted for private investment. A further 71% indicated further potential for substitution by agreeing that they had sufficient finance to proceed with the project over a longer period of time and/or on a smaller scale. Similarly, the majority of rejected enterprises agreed that following rejection of support, they had sufficient finances to proceed over a longer period of time and/or on a smaller scale.

However, based on survey findings, where enterprises would have been able to access funds in the absence of support, they would have primarily relied on internal funds. Similar findings emerged from the enterprise interviews, whereby enterprises would have relied on internal funds had support not been available. This was regardless of whether private, external finance was available or not. For rejected enterprises, the survey findings reveal that following rejection of their application, enterprises relied on internal funds more frequently than external funds. In the interviews, it was found that two of the rejected enterprises relied on other sources of government funding (from Invest Northern Ireland and the LEADER Programme), not covered in this study and would not have had access to sufficient alternative finance to carry out the project fully had this other support not been available.

Enterprise agency representatives claim to check internal funds of the enterprise. While some stated that they would not give funding to enterprises with large cash reserves or where there was perceived substitution, others are in favour of providing support regardless. However, agencies will not make contact with other external financiers to examine if the applicant enterprises have the capacity to raise external funds. Furthermore, there is the perception among agencies that all start-ups are underfunded.

Substitution Key Findings	
Survey	<ul> <li>Approximately 70% of supported enterprises and 84% of rejected enterprises agreed that receiving support meant that their enterprises needed less private investment</li> <li>9% of supported enterprises agreed that they would have had sufficient finance to carry out their projects fully had support not been available. In these cases support contributed to a lower percentage of project costs, compared to other respondents.</li> <li>71% agreed that they had the financial resources to carry out the project on a smaller scale and/or over a longer period of time had support not been available.</li> <li>The most frequently cited source of funds used by these enterprises would have been internal company funds.</li> <li>Only one (out of 12) of the rejected enterprises had sufficient finance for their project to be carried out fully following rejection of support. A further 9 (75%) had finances to carry out their projects on a smaller scale and/or over a longer period of time.</li> <li>Similar to supported enterprises, rejected enterprises primarily used internal funds to finance the projects</li> </ul>
Enterprise Interviews	<ul> <li>Three of the supported enterprises would have used internal funds had support not been available (SUP1, SUP2 and SUP3). One of these would have had access to bank funding but would not have used it (SUP1). The remaining two enterprises would not have had access to alternative funds in the absence of support (SUP4 and SUP5).</li> <li>Two of the rejected enterprises had access to alternative funds in the absence of support through other grants (REJ1 and REJ2), but would not have been able to raise external finance or provide internal funds to carry out the projects fully. The remaining rejected enterprise had access to funds from a parent company.</li> </ul>
Agency Interviews	<ul> <li>Support supplements private finance rather than replaces it</li> <li>Two EI (EI1 and EI4) and three CEB representatives (CEB3, CEB6 and CEB7) made reference to substitution but primarily in relation to personal funds of the promoter and company reserves/internal funds.</li> <li>From an EI perspective, there is an overwhelming perception that all start-ups are underfunded thus there cannot be substitution (EI2 and EI5)</li> <li>From a CEB perspective, support is different from mainstream finance as it facilitates riskier projects, thus it cannot be substituted (CEB2).</li> <li>Mixed views on whether enterprises would not (CEB1 and CEB4) or would (CEB7) be given support if substitution is recognised by the agency.</li> </ul>

Table 9.4: Key Findings relating to Substitution

# 9.6 Rent Seeking

Rent seeking is a somewhat subjective concept and thus was not explored in the survey. However, it was examined through both enterprise and agency interviews, the results of which are presented in Table 9.5. Four of the agency representatives perceived some enterprises to engage in rent seeking behaviour, however, only one example was apparent from the enterprise interviews. In this case the applicant was rejected as the enterprise was not eligible for support.

Table 9.5: Key	y Findings 1	relating to	Rent Seeking
----------------	--------------	-------------	--------------

Rent Seeking Key Findings			
Survey	•	Not tested	
Enterprise Interviews	•	Evident in one case (REJ3)	
Agency Interviews	•	One out of the five EI representatives (EI1) and three out of the CEB representatives (CEB4, CEB5 and CEB7) perceived behaviour that could be deemed as rent seeking.	

### 9.7 Information Asymmetries

Information Asymmetries refers to the concept of the agency not having full information about the enterprise. The primary exchange of information between the enterprise and the agency takes place during the application process and through the agencies' due diligence on an enterprise's application. A summary of the types of information sought and the sources of information which are used during this exchange are presented in Table 9.6.

Table 9.6:	<b>Key Findings</b>	relating to	Information A	symmetries

Information Asymmetries Ke	ey Findings
Survey	<ul> <li>Not tested</li> </ul>
Enterprise Interviews	<ul> <li>Information sought primarily concerns commercial viability and project specifications.</li> <li>Majority emphasised the burdensome nature of the application process</li> </ul>
Agency Interviews	<ul> <li>Emphasis on commercial viability of the project and testing enterprise prospects.</li> <li>Internal and external experts and customers are contacted to validate information.</li> <li>No contact with financiers other than to confirm if matching finances are in place.</li> <li>El rely on experience of the DA (El2) and trust in the promoter (El1). Similarly, CEBs rely on personal judgment (CEB6) and trust in the promoter (CEB7).</li> </ul>

The agencies primarily conduct due diligence on the commercial viability of projects when assessing applications for support. This was confirmed during the enterprises interviews. Furthermore, the majority of enterprise interviewees regarded this process as burdensome. However, the agencies do not assess the ability of the enterprise to raise funds from external, private sources. While the agencies do rely on consulting external sources regarding market potential and technology of the enterprise, they frequently cited the use of the EI Development Advisor's (DA) and CEB staff's judgement and experience when assessing the information. Furthermore, they rely on having trust in the promoter of the enterprise.

#### 9.8 Deadweight

The concept of deadweight concerns the ability of a project to proceed should support not be available. The concept was tested extensively in all three parts of the primary research and the key findings are presented in Tables 9.7 and 9.8. Full deadweight was found to be present among 12% of supported enterprises, while 70% of enterprises perceived partial deadweight. When these perceptions were applied to the numbers of jobs created, 39.39% of jobs were estimated to be deadweight. Where there was partial or zero deadweight, the primary cause was due to a perceived lack of finance by the enterprise. However, a minority of enterprises cited reasons other than finance which indicated that they perceived behavioural change as a result of receiving support.

Those enterprises which perceived full deadweight relied on support for a lower percentage of project costs, relative to partial or zero deadweight enterprises. However, there were no significant differences found between full and partial/zero deadweight enterprises based on enterprise characteristics or support metrics. Yet, responses to attitudinal statements were significantly different between full deadweight and partial/zero deadweight enterprises, with respondents from full deadweight enterprises generally being less positive about the impact of support on their enterprises' growth and development.

By comparison the potential for deadweight was found to be considerably less in rejected enterprises, with only one able to proceed following the rejection of support. Furthermore, following rejection of support, only eight of the 105 jobs planned by rejected enterprises were created. Thus, had these enterprises been supported, these eight jobs would have been deadweight. However, this only represented 7.6% of planned jobs.

The majority of interviewees from enterprise agencies were aware of the concept of deadweight and its meaning but did not know how to combat it other than examining

internal finances of the enterprise and the promoter's personal wealth. Some of the interviewees also expressed a degree of apathy toward the presence of deadweight.

Deadweight Key Findings 1	
Survey	<ul> <li>Approximately 12% of supported enterprises demonstrated full deadweight, while 70% demonstrate partial deadweight.</li> <li>Full deadweight projects had a lower average cost per job compared to other projects.</li> <li>Zero deadweight projects had the highest average value of support compared to other projects.</li> <li>Analysis of the findings estimates that 39.39% of jobs created in supported projects were deadweight.</li> <li>When deadweight jobs are excluded, the average cost per job in supported projects, to the state, increases from €22,664 to €37,375.</li> <li>Lack of finance was the most frequently cited reason why projects would have been delayed and/or scaled down, or abandoned had support not been available.</li> <li>Only a minority of partial and zero deadweight projects cited behavioural reasons for a change/abandonment of their project in the absence of support.</li> <li>There was no evidence of statistically significant differences between full deadweight and partial/zero deadweight enterprises based on enterprise characteristics or support metrics. However, there was evidence of statistically significant differences between these two groups based on their responses to attitudinal statements about support.</li> <li>Only 1 of the 12 rejected projects went ahead after support was rejected, 3 (25%) were abandoned, while the remainder were carried out over a longer period of time and/or smaller scale.</li> <li>Out of 105 planned jobs by rejected enterprises, only 8 were created, thus had these projects been supported and all planned jobs achieved, deadweight jobs would have been 7.6%.</li> <li>Projects were scaled down and/or delayed, or abandoned for reasons other than finance less frequently among rejected enterprises.</li> </ul>
Enterprise Interviews	<ul> <li>Lack of finance was the sole reason why projects would have been/were abandoned or changed in the absence of support.</li> <li>Those enterprises which would have changed their projects stated support was not critical but assisted them carrying out their projects faster (SUP1 and SUP2).</li> </ul>
	<ul> <li>Those enterprises who would have abandoned their projects in the absence of support did not have access to sufficient funds (SUP4 and SUP5).</li> <li>Two of the rejected enterprises had their projects delayed while they sought alternative supports (REJ1 and REJ2) but both would have abandoned their projects if alternative support had not been available, due to lack of finance.</li> </ul>

Table 9.7: Key Findings relating to deadweight (1)

The findings from the enterprise interviews supported the findings from the survey. Where supported enterprises' projects would have been scaled down, carried out over a longer period of time or abandoned in the absence of support, the sole reason cited was due to lack of finance. Those enterprises which had access to finance would have been slower to achieve their goals while those who had no access to finance would have abandoned their projects. All three of the rejected enterprises went ahead with their supported projects, but for two of these, they relied on financial support from other agencies. In these cases, had alternative support not been available, they would have had to abandon their projects.

While all but one of the agency interviewees understood the meaning of deadweight, there was some apathy towards the concept. The interviewees' understanding of the concept was that enterprises could proceed with their projects due to being able to access alternative finance to support. The only ways cited to test for deadweight were either examining an enterprise's internal funds or by subjective judgement during evaluations of applications. However, two interviewees proposed that even where an enterprise did have access to finance, or where support was not required as a financial input, the act of receiving support encouraged behavioural change, which was positive for enterprise growth.

Table 9.8:	Key	Findings	relating to	b deadweight (2)
	2	0	0	$\mathcal{O}$

Deadweight Key Findings 2
Agency Interviews

## 9.9 Additionality

Additionality was examined in terms of changes in outputs, inputs and behaviours to the enterprise as a result of receiving support. The key findings related to additionality are presented in Table 9.9. The majority of respondents to the survey were positive about the impacts that support has on a company's ability to grow, develop and to raise external finance. In the enterprise interviews, support was primarily seen as an input to help reach a business development goal. However, the supported enterprises cited the

importance of soft supports and the impact of support on behavioural aspects of the enterprise. Non-applicant enterprises also perceived potential benefits of receiving support, primarily in terms of outputs. However, interviewees from all three cohorts perceived the potential for support to be used to leverage finance from the private sector, thus creating input additionality.

Table 9.9: Ke	v Findings	relating to	Additionality

Additionality Key Findings	
Survey Enterprise Interviews	<ul> <li>88% of supported enterprises and 91% of rejected enterprises agreed that support did/would have helped their companies to grow.</li> <li>85% of supported enterprises and 92% of rejected enterprises agreed that support was necessary for their companies to develop.</li> <li>70% of supported enterprises and 84% of rejected enterprises agreed that receiving support made it easier to raise private finance.</li> <li>Only one interviewee (SUP1) perceived benefits from going through</li> </ul>
	<ul> <li>Only one interviewee (SOP 1) perceived benefits from going through the application process.</li> <li>Supported enterprises were more likely to cite behavioural changes as a result of support and to emphasise the importance of the package of support as opposed to solely the financial support (SUP1, SUP2 and SUP4). One described it as an incentive to grow the business (SUP5).</li> <li>Rejected enterprises also perceived benefits of receiving soft support (REJ1 and REJ3) but placed a greater emphasis on the financial aspects of support.</li> <li>Non-applicant enterprises perceived there would have been additionality in terms of increased exports (NONAP1), R&amp;D investment (NONAP2) and investment in new equipment and product diversification (NONAP3).</li> <li>The use of support to leverage finance from private financiers was cited by supported (SUP4), rejected (REJ1) and non-applicant (NONAP2) enterprises, while one perceived EI involvement to improve relations with their bank (SUP1).</li> </ul>
Agency Interviews	<ul> <li>Three out of eight CEB representatives stated support would increase the speed at which an enterprise could achieve its goals</li> <li>Four of the EI representatives perceived enterprises to seek support because of the non-financial elements support adds.</li> <li>EI and CEB due diligence and investment induces private finance</li> <li>Five EI and six CEB interviewees stated the main objective of support was to create jobs.</li> <li>Three EI representatives perceive support to develop enterprise capabilities such as R&amp;D and Management Development</li> <li>Support encourages enterprises to take risks (EI1) and engage in projects it would not otherwise do (EI4)</li> </ul>

Similarly, the agency interviews revealed that support as a financial input is only one aspect of support, and that there are behavioural impacts also. This was highlighted through emphasising that financial support was solely part of an overall package of support. A number of agency interviewees also stated that receiving support incentivises owner/managers of enterprises to take risks or incentivises them to engage in new activities, thus altering behaviour. Finally, the use of support to leverage finance from

private financiers was reported by agency interviewees, thus demonstrating input additionality.

#### 9.10 Summary

This chapter has presented a brief summary the key findings from each of the three parts of primary research; the enterprise survey, enterprise interviews and agency interviews. These findings have been classified within individual concepts and the findings from each of the three elements of research have been compared and contrasted. However, on further examination the different concepts may also be compared, thus creating a more holistic perspective of enterprise support.

As presented in Section 9.2, market failure is cited by the agency representatives as the rationale for providing support. Indeed, the majority of supported enterprises have perceived difficulty in raising finance. Thus the rationale is justified. However, those enterprises which were rejected for support are more likely to perceive difficulty in raising finance, as evidenced by the survey findings. Furthermore, agencies will only support enterprises where the enterprise can raise matching finance. Of even greater interest, is agencies may support enterprises where they have access to all of the necessary finance (as evidenced by EI1 and EI5) and may even perceive such enterprises as being better prospects to support (as evidenced by CEB7). In a situation whereby agencies are more likely to support enterprises which have a better capacity to raise finance, this may be deemed as a form of Selection Bias.

With regard to Selection Bias, there were no notable differences found between applicants and non-applicants in terms of age, location or sector. However, the enterprise support agencies were found to select clients based on their perception of the enterprise's promoter, growth prospects, export and market potential. Furthermore, as evidenced by EI1's perceptions, enterprises will not be brought through the application process unless they are likely to succeed in their application. Thus selection bias is apparent, particularly in terms of selecting enterprises for support which are perceived to have the potential to be successful and to meet agency goals. Furthermore, an element of self-selection is apparent.

There were a number of findings which indicate a mismatch between enterprise goals and requirements and agency objectives, thus questioning the appropriateness of support. The agency objectives surround job creation, while being governed by costper-job measures. Indeed agency performance is perceived to be gauged on the level of jobs created. Yet job creation is not a primary objective of the enterprises. Because of this mismatch in objectives, enterprises can be rejected for support, even though they require it, because they do not meet agency objectives of creating jobs (as evidenced by SUP4 and REJ1). As such the mismatch between enterprise goals and agency objectives may be in part explained by selection bias, whereby agencies select enterprises based on their ability to create jobs and represent an achievement of agency objectives. Furthermore, while market failure may be the rationale for intervention, the concern agencies have for achieving their objectives (i.e. the creation of jobs) may outweigh the rationale of support (i.e. addressing market failure).

The potential to substitute private finance with financial support was perceived by enterprise owner/managers in the survey phase and in the enterprise interviews. Interestingly, the ability to substitute was greater among supported enterprises than among rejected enterprises. Thus, rejected enterprises perceive a lesser degree of access to finance and thus, a greater degree of market failure. Reflecting on the summary section of this chapter thus far, agencies appear to more readily support enterprises which demonstrate a lower degree of market failure, through a selection bias. That is not to say, that supported enterprises do not perceive market failure, or to say that agencies do not address market failure, but they do not address market failure where it is most severe (i.e. among rejected enterprises).

While agencies appear to have a comprehensive due diligence process in place, there is still capacity for information asymmetry through their lack of ability to fully understand an enterprise's capacity for raising finance from the private sector. Thus the potential exists for agencies to misperceive the extent of market failure experienced by an enterprise. However, there are a number of key points which mitigate for this factor. Firstly, where there is potential for enterprises to find alternative finances to support, and thus experience a lesser degree of market failure, they most frequently rely on the use of internal enterprise funds. The internal funds available to the enterprise are checked during the application and due diligence process. Secondly, where internal

funds would have been used in the absence of intervention, there is potential for investment to be reduced in other, unsupported elements of the enterprise, as evidenced by SUP1. As such support creates externalities. Thirdly, and arguably most interestingly, there appears to be less concern among the agency interviewees regarding the overall fund raising capacity of the enterprise. The agencies are considerably more interested in the commercial viability of the enterprise and the enterprise's ability to create employment.

With respect to deadweight, the presence of deadweight has implications on the costper-job to the state, which is of great importance for determining the cost effectiveness of financial support to enterprises. However, with respect to the cause of deadweight, the ability of a project to proceed, to change in terms of time or scale, or to be abandoned in the absence of support has been overwhelmingly linked to the availability of finance. Indeed, those enterprises who perceived full deadweight, were less likely to have poor access to finance, then those enterprises which perceived partial or zero deadweight. Thus the ability to substitute private finance with financial support creates the potential for deadweight. However, there are important mitigating factors. As already stated, where substitution occurs there can be externalities, in that unsupported elements of the enterprise receive investment which would have otherwise been reduced in the absence of support. Secondly, a large number of projects would have gone ahead in the absence of support but on a smaller scale or over a longer period of time. A stated aim of the agency interviewees is to increase the speed of investment and the scale of projects. Thus the presence of partial deadweight is a reflection of the achievement of agency goals. Finally, there are behavioural elements which must be considered. A minority of enterprises would have abandoned or changed the scale/timing of their projects due to non-financial related aspects, such as excessive risk and uncertainty of feasibility. As stated during the agency interviews, one of the purposes of support is to encourage risk and encourage engagement of projects, even where the enterprise has finance. As such there is an incentive factor associated with support.

There was evidence of additionality in terms of outputs, inputs and behaviours expressed throughout the findings chapter. The majority of both supported and rejected enterprises perceived support to have the potential for a positive impact on enterprise growth and development. Support has a positive impact on behaviours, as stated in the previous paragraph, but was only perceived to be the case by a minority of enterprises. However, one of the key features of support is to act as a catalyst to leverage finance from the private sector. There is evidence to suggest that financial support achieves this. Finally, the enterprise agencies stressed the importance of the package of support, including both financial and soft supports. Supported enterprises generally had positive perceptions of the soft supports, more so than rejected or non-applicant enterprises. It may be that supported enterprises perceive greater benefits of the package of support in retrospect, while rejected and non-applicant enterprises solely perceive support as a financial input from having not gone through the process.

As has been reflected in this chapter summary, a thread emerges cutting across each of the concepts examined. Briefly, selection bias is based on an enterprise being less prone to market failure and based on the ability of the enterprise to achieve the support agencies' objectives. Furthermore, the desire to achieve agency objectives, results in support not always been appropriate to meet the needs of the enterprise. Any information asymmetries may not be a concern for the agency as they can identify attributes which matter most to achieving agency objectives. The capacity to substitute, and therefore the capacity for deadweight, is perpetuated by selection bias, where enterprises which can raise finance are selected for support. Yet, the presence of behavioural and input additionality may mitigate for substitution and deadweight.

This chapter has in essence provided a somewhat intricate and complex view of state sponsored financial support, which warrants further discussion. The next chapter discusses these findings in the context of the literature and previous studies of state support for enterprises, and in comparison to the theoretical framework which was developed at the end of Chapter 4. **Chapter 10 - Discussion** 

# **10.1 Introduction**

The purpose of this thesis is to gain an understanding of the concept and consequence of deadweight from the perspectives of enterprise support agencies and owner/managers of SMEs. More specifically it is to develop an understanding of (i) the reasons why enterprises seek financial support and the rationale for government agencies providing financial support, (ii) how support agencies select enterprises for financial support and under what conditions support is allocated to enterprises and (iii) the extent to which financial support is a catalyst for the development of supported enterprises, relative to unsupported enterprises. In order to achieve these aims findings related to the different inefficiencies and concepts discussed in Chapter 4, have been presented in the preceding four chapters.

The findings from the survey of enterprises and the interviews with enterprise owner/managers were presented in Chapters 6 and 7 respectively. As per Chapter 5 (Methodological Considerations) there were three cohorts of enterprise respondents involved in these two stages of research:

- Supported enterprises: These were the enterprises that requested financial support from Enterprise Ireland (EI) and/or City and County Enterprise Boards (CEBs) and received support from these organisations;
- (ii) Rejected enterprises: These were the enterprises that requested financial support from Enterprise Ireland (EI) and/or City and County Enterprise Boards (CEBs) but their request for support was rejected by these organisations; and
- (iii) Non-applicants. These were enterprises that did not request any financial support from Enterprise Ireland (EI) and/or City and County Enterprise Boards (CEBs).

This was followed by Chapter 8 which presented the findings from the interviews with representatives of the two main state sponsored enterprise support agencies; Enterprise Ireland and the City and County Enterprise Boards. The key findings from these elements of research were then analysed in Chapter 9 to illustrate the themes which have emerged from the primary research.

This chapter brings together the literature and primary research to interpret the findings surrounding the inefficiencies associated with government financial support for enterprises, and the impacts of such support. This chapter begins with a discussion of deadweight, comparing findings from this research to similar previous studies. This chapter then discusses the findings related to other inefficiencies which are suspected to exist within enterprise support systems. Finally there is a discussion of findings related to additionality. These findings are discussed in the context of the framework which was developed in Chapter 4 of this thesis, in order to help develop an overall understanding of deadweight.

#### **10.2 Deadweight**

Lenihan et al. (2005) defined deadweight as the degree to which a supported enterprise would have achieved the same outcomes in the absence of such support. While the concept has been recognised in Irish policy documents ever since the *Shaping Our Future* (Forfás, 1996) enterprise strategy, it had not necessarily been a concern for the support agencies. As Fitzpatrick Associates (2003) reported, when questioned about deadweight, some CEB representatives did not believe it existed, while others described it as an "intellectual problem". Other representatives stated that deadweight was mitigated by the higher survival rates of CEB supported companies and the clients' ability to leverage extra finance from the private sector. Similarly for this research (as reported in Chapter 8), when agency interviewees were questioned about deadweight they too responded with a degree of apathy or presented mitigating circumstances for its presence. This section analyses the findings for deadweight in relation to previous studies of deadweight, in order to examine if the concept is a challenge for the Irish system of enterprise support.

#### 10.2.1 Level of Deadweight

Lenihan (1999) outlined three levels of deadweight; full, partial and zero deadweight. Previous studies of deadweight in an Irish context have measured deadweight according to these three levels and by posing a set of similar hypothetical counterfactual situations to recipients of state sponsored enterprise support, to enquire as to what they perceived would have happened in the absence of support. The same measurements were employed as part of this thesis. Table 10.1 presents the level of deadweight found among the enterprises in each of these previous studies and compares them to the current research.

It was revealed in Chapter 6 that 12% of the sample of supported enterprises surveyed perceived full deadweight. This means that in the absence of support their projects would have gone ahead fully and there would have been no additionality as a result of support. This level of deadweight is similar to that found in a Department of Jobs, Employment and Innovation (DJEI, 2015d) evaluation carried out on the Company Expansion Scheme which is operated by Enterprise Ireland, and marginally higher than a second DJEI evaluation carried out on the Job Expansion Fund (DJEI, 2015e). Similarly, the amount of zero deadweight enterprises found in this study (18%) is similar to the Company Expansion Scheme evaluation. In such cases supported projects would have been abandoned in the absence of support, thus these projects are 100% additional.

With respect to partial deadweight, whereby a project would have been delayed and/or scaled down in the absence of intervention, the findings of this thesis were also similar to the DJEI (2015d) evaluation. These evaluations by DJEI were carried out after this thesis commenced, and the periods evaluated in these evaluations overlap with the time frame of this study. The similar levels of deadweight recorded across these studies add to the reliability of this thesis.

Agency	Shannon Development	CEBs	Enterprise Ireland	Enterprise Ireland (Company Expansion Scheme only)	Enterprise Ireland (Jobs Expansion Fund only)	Enterprise Ireland and CEBs
Study	Lenihan (1999)	Fitzpatrick Associates (2003)	Lenihan and Hart (2003)	DJEI (2015d)	DJEI (2015e)	This Thesis
Time Frame	1995-1997	1999-2002	2000-2001	2005-2010	2010-2012	2008-2011
Sample	n=77	n=171	n=42	n=221	n=64	n=90
Full Deadweight	53.2%	30.4%	19.0%	11.5%	8.9%	12%
Partial Deadweight (different location)	2.6%	1.2%	0.0%	4.9%	6.7%	Not Measured
Partial Deadweight (later date)	11.7%	13.5%	7.1%	13.3%	17.8%	22%
Partial Deadweight (Reduced scale)	22.1%	21.1%	35.7%	22.1%	33.3%	13%
Partial Deadweight (Reduced scale and later date)	Not Measured	23.4%	28.6%	31.0%	28.9%	35%
Partial Deadweight (different location and later date)	Not Measured	Not Measured	2.4%	Not Measured	Not Measured	Not Measured
Unspecified Combination of answers	Not Measured	1.0%	Not Measured	Not Measured	Not Measured	Not Measured
Total Partial Deadweight	36.4%	60.2%	73.8%	71.3%	86.7%	70%
Zero Deadweight	10.4%	9.4%	7.1%	17.3%	4.4%	18%

Table 10.1: Comparison of levels of deadweight in previous studies and this research

Source: Compiled by the author based on above listed studies

However, when compared to previous studies conducted by academics in different schemes and/or different time frames (also featured in Table 10.1), this thesis found lower levels of full deadweight and higher levels of zero deadweight. Thus this thesis has found financial enterprise support administered by Enterprise Ireland to be more effective than it had been in Lenihan and Hart's (2003) evaluation of Enterprise Ireland supports, Fitzpatrick Associates' evaluation of CEB support and Lenihan's (1999) evaluation of Shannon Development.

However the figures presented in Table 10.1 only demonstrate the frequency of cases where there is deadweight or additionality, and not the level of deadweight or additionality as a result of expenditure on support. Lenihan (1999) conducted further analysis and estimated that 78.4% of the net jobs created by the enterprises in her study were deadweight and 21.6% were additional, which better demonstrates the effect of deadweight. This research employed the same method of estimation, and discovered that 39.39% of jobs were deadweight and over 60% were additional. Again, the distribution of financial support has been found to be more effective in this current study as it has lower deadweight and higher additionality.

The possible rationale for the lower levels of deadweight in this thesis and the DJEI (2015a; 2015b) studies, compared to earlier studies is presented as follows. Firstly, this study examined deadweight among enterprises which had received support during the period 2008 to 2011, which was a period of recession for Ireland. This is in contrast with Fitzpatrick Associates (2003) and Lenihan and Hart (2003) who conducted their studies during a period of economic growth. As Wren and Waterson (1991) outlined, the impact of support on enterprises can be affected by the economic cycle. Furthermore it is suggested that the agencies which provide support were being responsive to economic conditions, as evidenced by EI1 during the agency interviews (presented in Section 8.3). He stated that prior to the recession the agency was encouraging enterprises to engage in R&D and exporting, but that during the recession the emphasis of the support agencies was to secure finance for enterprises which were struggling to acquire it from the private sector.

Secondly, Lenihan's (1999) measure of deadweight was confined to enterprises supported by Shannon Development; a small regional development agency operating in the Mid-West of Ireland. The enterprises in her study were all in receipt of grants. However, the enterprises surveyed in this thesis received a much wider range of supports, many of which included repayable elements or were in the form of equity. The current system of support represents a much greater shift from the types of support, such as grants, which Culliton (1992) associated with a "handout mentality" whereby enterprises would seek support simply because it was available, rather than for achieving any purpose which financial enterprise support was aimed at.

Finally, this study used a different measure of employment to Lenihan (1999). This thesis measured the number of jobs that were created solely in relation to the supported project. In contrast, Lenihan (1999) measured the overall net increase in employment in the sample of supported enterprises during the period of her study. It would be reasonable to assume that the success or failure of a supported project would have some spillover effects into any unsupported elements of an enterprise, and therefore impact on jobs outside of the supported project. However, it might be unreasonable to assume that support influenced the entirety of net employment growth within an enterprise, as was assumed in Lenihan's (1999) study. Thus, this thesis solely counted jobs created within a supported project.

Furthermore, previous studies have not measured the impact of deadweight on expenditure on enterprise supports. As demonstrated in Section 6.8.2, the basic cost per job (expenditure on support divided on the number of jobs created in the supported project) was approximately &22,664 for projects supported between 2008 and 2011. The cost per job metric is a key figure which Enterprise Ireland uses to demonstrate that they are a cost effective organisation. However, the figure found in this study is in sharp contrast to the &12,315 cost per job figure reported by Enterprise Ireland for the period 2005/11 (Enterprise Ireland, 2014), as reported in Section 3.7.2 of this thesis. Again, the difference in jobs measurement must be considered. Enterprise Ireland counted the number of jobs sustained by an enterprise over a seven year period (Enterprise Ireland, 2014), while this research solely counted the number of jobs created in a supported project and over a shorter period of time. Again, while there may be some spillover

effects from supported projects, it would be unreasonable to assume that all jobs sustained in an enterprise were attributable to Enterprise Ireland, simply because an enterprise received support from Enterprise Ireland at some point in time.

Furthermore, this thesis has brought the cost per job metric a step further by factoring in deadweight estimates. When deadweight jobs are removed from the total number of jobs created in supported projects of enterprises surveyed for this study, the cost per job increases to  $\notin$ 37,375. As Wren and Storey (2002) and Lenihan et al. (2005) alluded to, it is suggested that support must be evaluated in terms of its opportunity cost, to examine if government funds allocated to support can be put to better use elsewhere. Thus understanding the implications of deadweight on the cost of job creation by support, is crucial to understanding if other areas of government expenditure generate more cost effective job creation. Of course, evaluating other areas of government expenditure is outside of the remit of this study.

## **10.2.2 Characteristics of Deadweight Enterprises**

Previous studies of deadweight have also attempted to explain the concept, primarily by examining the relationship between enterprise characteristics and deadweight and support characteristics and deadweight (Lenihan, 2004; Heijs, 2003; Tokila et al, 2007; Sipikal et al, 2013). The findings of these studies have varied considerably. For example, Lenihan (2004) found that larger enterprises were more likely to perceive deadweight, while Heijs (2003) and Tokila et al. (2007) found older enterprises to be more likely to exhibit deadweight.

However, similar to Sipikal et al. (2013), this research did not find any statistically significant relationship between either enterprise characteristics or support characteristics, and deadweight. However, one particular aspect of importance is in the analysis of the data. In previous studies, pure deadweight and partial deadweight enterprises have been grouped and compared with zero deadweight enterprises (Lenihan, 2004; Tokila et al., 2007; Sipikal et al., 2013). In essence these studies have taken the view that any level of deadweight is a negative feature of support and thus full and partial deadweight projects should be grouped in the same cohort. However, in

Section 8.3 of this thesis, it was revealed that one of the goals of enterprise support was to increase the pace at which projects are implemented or to increase their scale. Thus, those enterprises in partial deadweight categories (i.e. those that would have reduced the scale and/or delayed their projects in the absence of intervention) actually represent an achievement of state enterprise support objectives. Such a finding highlights the importance of conducting the interviews, to discover the actual objectives of support, rather than solely relying on policy documents, before evaluating such supports and analysing results.

In this research, partial and zero deadweight enterprises were grouped and compared with full deadweight enterprises, as presented in Section 6.8.4. Contrary to Heijs (2003), Lenihan, (2004), and Tokila et al. (2007), no evidence of a statistically significant difference was found between the two groups by age of the enterprise, or the size of the enterprise (in terms of numbers employed). Furthermore, there was no evidence of a statistically significant difference based on total investment made in each project, the amount of support received or the cost per job measure for each enterprise.

However, there was evidence of statistically significant differences found between full deadweight and partial/zero deadweight enterprises based on the mean Likert ratings given by survey respondents to various statements concerning support. Those respondents who perceived full deadweight were also less likely to perceive that their enterprise had difficulty raising finance in the past, that support had helped their company grow and that receiving support had made it easier to raise private finance. Interestingly, they were also less likely to agree that they would apply for state assistance in the future. Such statements were not included in previous studies of deadweight, yet they provide interesting insights into what distinguishes the two groups. The statements reflect a generally more negative sentiment towards enterprise support among those who perceive full deadweight.

Finally, to the author's knowledge this is the first piece of research to evaluate deadweight and also include the perceptions of enterprises which were rejected in their applications for support. Therefore there are no other studies to form a basis for comparison. Enterprises which were rejected for support, were more likely to reduce

and/or delay their projects or abandon their projects altogether following their rejection, relative to what supported enterprises perceived would have happened in the absence of support. Thus had these enterprises been supported they would have demonstrated lower levels of deadweight than the supported sample. Therefore it is important to develop an understanding of why these enterprises were not supported, yet other enterprises in the sample were supported despite having a greater potential for deadweight.

Having discussed deadweight in isolation, this section has helped to create an understanding of the consequence of deadweight. However, as explained in the Summary of Chapter 4, there is the potential for insight to be gained into the concept of deadweight, through the examination of possible links between the various other inefficiencies which may exist in the system for enterprise support. The following sections discuss these concepts in the context of extant research, policy and findings from this research which test for the presence of these inefficiencies.

# 10.3 Relationship of other inefficiencies to deadweight

Following the analysis of the concepts concerning government support for enterprises, a series of potential links were proposed in the Summary of Chapter 4, which outlined the potential relationship between inefficiencies associated with enterprise support, deadweight and additionality. These links have been illustrated in Figure 10.1 and will be discussed in turn throughout this section.

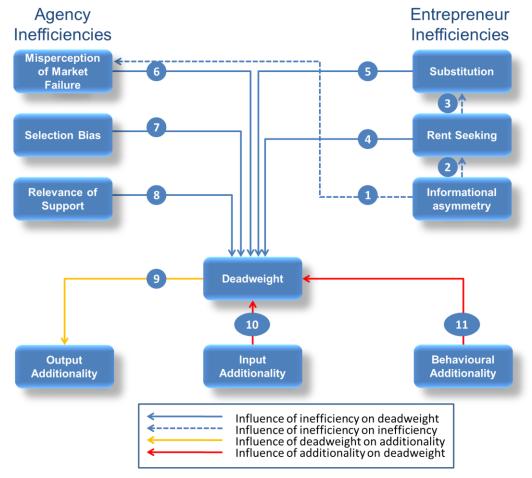


Fig 10.1: Relationship between Inefficiencies, Deadweight and Additonality

Source: Author

#### **10.3.1 Information Asymmetries**

Wren (2003) stated that the presence of information asymmetries can occur during the support process where those allocating the enterprise support do not have access to the same information as the applicant for support. What this thesis proposed was that such information asymmetry may lead to state enterprise support agencies misperceiving market failure (Line 1, in Figure 10.1) and as a consequence allocate support where it is not required, thus resulting in deadweight (Line 6). Alternatively, it could potentially allow enterprises to engage in rent seeking (Line 2) which in turn may lead to deadweight (Line 4). In an Irish context, the potential for information asymmetry to result in deadweight was recognised by the Irish national policy advisory board, Forfás (2012) which stated:

"It has been suggested that even if policies are planned carefully, deadweight spending is not completely avoidable because the government never has full information about a firm's actions in the absence of a subsidy." (p. 138)

Yet, from the interviews with agency representatives, discussed in Section 8.8, they place a strong emphasis on their due diligence process when evaluating applications. However, as this research revealed, the due diligence process primarily involves evaluating the business plan of an enterprise and ensuring its commercial viability and technical feasibility. In terms of finance, the only element covered by Enterprise Ireland or CEB due diligence is validating that the finance to match agency financial support is in place, from either the enterprise and/or from a third party. At no point in the application process or due diligence process do the enterprise agencies examine if an enterprise could raise all of the necessary finance alone, beyond examining an enterprise's balance sheet to assess if the enterprise has large reserves. Indeed, CEB3 conceded that not examining if enterprises could raise finance from the private sector could *"be considered a weakness in our system."* Instead the agencies appear to rely on trust in the promoter of the enterprise and also in their own experience.

While the primary research could not find any evidence to support the link between information asymmetries and deadweight, the capacity for information asymmetries was discovered. However, a more pressing concern is if the agencies regard such information asymmetries as a problem. This will be discussed further in sections 10.3.4 in relation to market failure and 10.3.5 regarding selection bias.

#### 10.3.2 Rent Seeking

Rent seeking in the context of enterprise support has received little attention in previous studies, despite Culliton (1992) referring to a "hand out mentality" in a review of Irish industrial policy. In the analysis in Chapter 4 of this thesis it was proposed that in the case of rent seeking, the support is not required by the enterprise, thus there would be deadweight (Line 4). The subjective nature of this concept did not allow for its testing in the questionnaire phase of this research. Only one example of such behaviour was found in the enterprise interviews. In this case (interviewee REJ3), the application for support was rejected and the enterprise continued with the project fully. Thus had it been supported it would have represented full deadweight. In the case of supported enterprises, there was only one example of full deadweight emerging from the enterprise interviews (interviewee SUP3). In this scenario, the project would have gone ahead fully without support, but this was because it was a collaborative effort with a university and the university dictated the timing and scale. Thus without support, the project would have had to go ahead fully or not at all. As the enterprise had sufficient finance it would have gone ahead with the project in the absence of support. As such it could not be deemed as the promoter rent seeking, but of a consequence of circumstances. In contrast, a number of agency representatives (interviewees EI1, CEB4, CEB5 and CEB7) referred to behaviour which could be interpreted as rent seeking during the agency interviews, but stated they would not support enterprises in such cases.

However from the research evidence compiled it would appear that rent seeking is not a challenge for the enterprise support system. In an analysis of attitudinal statements from the survey phase of research it was found that those supported enterprises who demonstrated full deadweight, were less likely to apply for support in the future than those enterprises who demonstrated partial or zero deadweight (see Table 6.23). This would suggest that if enterprises do not perceive support to have an impact on their enterprise, they will not apply for it in the future. Interestingly, respondents from full deadweight enterprises were also more likely to find the application process onerous.

The onerous nature of the application process was also alluded to by the majority of interviewees from enterprises, in both supported and rejected enterprises. Furthermore, the burdensome nature of the application process was a principal reason for non-applicant enterprises to not pursue support. In one case, a non-applicant enterprise (NONAP2) cited the opportunity cost of the company directors' time in completing the application was too great to warrant the amount of support which would have been received had they been successful. Thus the time, effort and cost required to apply for financial support may be a disincentive for applying for unnecessary support.

#### **10.3.3 Substitution**

Substitution is the concept whereby public support crowds-out private finance and was found to be present in Spanish R&D supports by Heijs (2003). In Section 4.4.2 it was proposed that if an enterprise has the ability to substitute financial support for private finance, that they may not need the financial support. Thus a project could be carried out without support as the finances were available to do so. Such a relationship is represented by Line 5 in Figure 10.1. Links were found between deadweight and finance availability in a number of elements of the primary research. Among the surveyed enterprises, where projects would have been abandoned or scaled down and/or delayed in the absence of support, the primary reason was due to lack of finance. Furthermore, full deadweight enterprises were less likely to have perceived difficulty in raising finance in the past. Lenihan (1999) found similar results in her study of Shannon Development, whereby the overwhelming reason for projects changing or being abandoned was due to finance availability.

This research found evidence of substitution by supported enterprises, with approximately 9% of supported enterprises stating that they had access to sufficient funds to be able to carry out their projects fully had support not been available. Interestingly, such projects relied on support for a smaller contribution to total investment in projects compared to other enterprises. In such situations, finding finance for the balance of project costs in the absence of support may not have been as difficult. A larger proportion of enterprises (71%) would have had access to finances to carry out their projects had support not been available, but the projects would have been

implemented over a longer period of time and/or a lesser scale. However, the most frequent source of finance that these enterprises would have relied on had support not been available was internal company funds, as opposed to external private investment. As was revealed in the enterprise interviews, the use of internal funds may mean that funds are drawn from other elements of the enterprise (SUP1), thus reducing activity in unsupported parts of the enterprise. Such a finding is important to potentially address misconceptions of deadweight. For example, following her discovery of the link between finance availability and deadweight, Lenihan (1999) suggested that in order to minimise deadweight all other sources of finance should be exhausted. However, as was evidenced by SUP1, though the enterprise had access to finance which could have potentially replaced support, had support not been available, the enterprise as a whole would have suffered due to lost externalities and spillovers. Thus Lenihan's (1999) conclusion may have been overly simplistic.

Interestingly, those enterprises which were rejected for support were less likely to be able to access finance to replace support. Again, those that were able to substitute for support primarily relied on internal funds. Further insights with regard to substitution were discovered from interviews with the rejected enterprises. Two of the rejected enterprises were able to substitute for support following the rejection of their applications but only because they received financial supports from other agencies. In essence, despite these enterprises being less capable of substituting support, they were rejected for support. This will be discussed further in the next sections of this chapter with regard to market failure and selection bias.

# 10.3.4 Market Failure

The most commonly cited rationale for the state providing financial support to SMEs and indigenous enterprise is market failure (Jansen and Havnes, 2002), particularly in relation to the inability of the market to provide sufficient finance for enterprise growth and development (Audretsch et al, 2007). Market failure was particularly apparent in the Irish context during the time frame of this thesis, with Forfás (2010) stating, "*Currently, the single most important issue for the Enterprise Ireland client base is access to finance.*" As illustrated in Figure 10.1 (line 6), it was proposed that the where agencies

misperceived the presence of market failure, they may issue support where it is not required. Thus deadweight would occur.

The market failure rationale was cited by the majority of interviewees from the support agencies, as reported in Section 8.3. Furthermore, nearly all of the agency representatives were of the view that enterprises approached them for support due to lack of finance. From the perspective of the enterprise, the enterprise survey and enterprise interviews found that the vast majority of enterprises had difficulty in raising finance. Thus the market failure rationale for intervention as presented by Potter (2005) and Hart and Lenihan (2006) is, for the most part, justified. However, not all enterprises in the sample cited difficulty in raising finance.

It is also important to consider how support addresses market failure. As was revealed in the agency interviews, support is not solely meant to supply finance where no finance is available for an enterprise. Rather, support is aimed at supplementing private finance which is already available to the enterprise or to be used to leverage additional finance from the private sector. The requirement by the enterprise to raise private finance to match support is referred to by the agencies as *'shared risk'*. As such enterprises which cannot raise matching finance will not be supported. Such findings support Storey's (1994) proposition that very few schemes (with exception to examples such as the Loan Guarantee Scheme in the UK) strictly address market failure.

In terms of the relationship between market failure and deadweight, it was found that those enterprises which perceived full deadweight were less likely to agree that their enterprises had difficulty raising finance in the past and less likely to perceive difficulty in raising matched finance or leveraging effects. Such findings were similar to Lenihan (1999) who found that those enterprises which perceived deadweight were more likely to be able to raise alternative finance to support, had support not been available. However, the initial proposition in this thesis was that agencies may misperceive market failure and thus allocate support where it was not required, rather than solely questioning whether deadweight enterprises were less prone to market failure. As evidenced in Section 8.3 of this thesis, there was the perception by a number of agency representatives that all start-ups were underfunded. Such sweeping perceptions may result in agencies overlooking where there is no market failure. However, there were statements made by the interviewees that the presence of market failure may not be a major consideration by the agencies when deciding whether to support an enterprise or not. For example agency interviewees EI1 and EI5 stated that they may support enterprises where they have access to all of the necessary finance, while interviewee CEB7 perceived enterprises which could raise sufficient finance as being better prospects to support. As such the decision to support an enterprise which is not exposed to market failure may be more of a choice by the agency rather than a misperception. Such a choice may be due to selection biases, which are discussed in the next section.

#### **10.3.5 Selection Bias**

Selection bias (Roper and Hewitt-Dundas, 1998; Hart et al, 2000; Roper and Hart, 2005), picking winners (Freel, 1998) or 'good choice paradox' (Sipikal et al. 2013) has been described throughout the literature as the concept whereby enterprises may be chosen by agencies for support due to their high-growth potential and characteristics, or the capability to succeed. However, there has been little or no evidence from studies to date that this phenomenon is significant in the Republic of Ireland (Roper and Hewitt-Dundas, 1998; Hart et al, 2000; Roper and Hart, 2005). Similarly, the initial analysis of enterprise characteristics in this study did not find any differences between applicants for support and non-applicants for support, or between supported and rejected enterprises, other than in the numbers employed by the enterprise. However, the figure for employment by enterprises was gathered after support was implemented, thus supported enterprises would be expected to be larger due to having employed additional workers in supported projects. Furthermore, it should be reiterated that this study was based on recommendations for evaluation contained in Storey's (1998) Six Steps to Heaven Framework. As such the samples for all cohorts were selected from a limited number of sectors with an element of matching introduced between all sub-samples. As such, major differences between applicants and non-applicants and between supported and rejected enterprises would not be expected.

However, there are a number of other factors which must be considered in evaluating selection bias. On a broad level, as presented in Chapter 2, the enterprises operating in

sectors which are typically supported by EI and the CEBs account for a minority of the overall population of SMEs. As such supported enterprises are atypical to the enterprise population. Thus selection bias is apparent in the enterprise support system in Ireland. Furthermore, as Cooney and O'Gorman (2007) asserted, selection bias is inherent in the nature of Irish enterprises support, in that support is targeted at enterprises with high growth potential.

The findings of this thesis have provided further evidence of selection bias through comparing the perceptions of supported and rejected enterprises. Based on findings from the survey of enterprises in Section 6.5, it was apparent that enterprises which were rejected for support perceived a greater level of difficulty in raising finance. As stated in the previous section of this chapter, agencies will not support enterprises which cannot raise matching finance and may even have a preference for enterprises which present a greater ability to raise finance. Furthermore, the agency interviews revealed that agencies select enterprises based on their confidence in the promoter, and in the case of EI, their perception of the enterprise's export and market potential, and based on the technology behind the business. Much of the selection criteria which were mentioned by the agency interviewees were qualitative and quite subjective. Thus it is not surprising that a study such as Roper and Hewitt-Dundas (1998) did not find any selection bias considering their evaluation was based on quantitative data.

Furthermore, there was one particularly interesting quote from one of the agency representatives (EI1), who stated, "*We wouldn't let it get to a stage where companies fail in their application.*" As such companies are preselected for the application process based on their perceived ability to be successful in receiving support from the agency.

Finally, there may be an element of self-selection by the enterprises in applying for support. The majority of survey respondents and interviewees from all three groups perceived the application process to be burdensome. Yet, only the supported and rejected interviewees went ahead with the application. Furthermore, two of the supported interviewees (SUP1 and SUP3) stated that it was up to the applicant to make a strong case in their application for support.

In relation to Figure 10.1, it was proposed that where successful enterprises are selected for support (i.e. selection bias), there is a greater probability of them succeeding without support, relative to unsupported enterprises (line 7). Thus there is greater potential for deadweight. As this section has demonstrated there are elements of selection bias within the Irish enterprise support system. Yet, as demonstrated in Section 10.2.3 those enterprises which are selected for support are more likely to demonstrate deadweight, than those which are rejected. Therefore, there is evidence of a link between these concepts.

#### 10.3.6 Appropriateness of Support

The issue of the suitability of support in addressing the challenges that enterprises face was addressed in Section 4.4.2. Enterprise support schemes may encourage increased employment where additional labour is not required by the enterprise (Wren, 2001), support may only increase productivity in the short-term (Bergstrom, 2000), and standardised support schemes may not suit the heterogeneous population of enterprises (Curran, 2000; Boter and Lundström, 2005). Thus there is a mismatch between agency objectives and enterprise goals.

This research found that both supported and rejected enterprises demonstrated difficulty in finding suitable supports for their enterprises and that support was too restrictive as to what activities it could be spent on. Furthermore, non-applicants demonstrated a lack of awareness of suitable supports for their enterprises. These perceptions were echoed in the enterprise interviews. Three of the five supported enterprises did not perceive the agencies to understand their sector or for support to be suitable for their sector. A similar view was held by the rejected and non-applicant enterprises. Views were also expressed that there was potentially a gap in the support system, where some enterprises were too small, in terms of employee numbers for Enterprise Ireland, yet too advanced for support from a CEB. Thus there was evidence to support the findings of Curran (2000) and Boter and Lundström (2005).

In contrast to Wren (2001), the agency interviews revealed the perception that creating unnecessary employment was a feature of older policies not the goal of the current support system (CEB2). However, while the enterprise agencies stated that their objective was to stimulate areas such as innovation, R&D, exports and management development, they are ultimately restricted when issuing support, by cost-per-job measures and having their performance based on the number of jobs created. Indeed, as demonstrated in Section 3.5, while policy is cognisant of market failure, developing R&D, innovation and exports, during the Irish economic downturn, the overwhelming emphasis of policy has been on job creation and reducing unemployment. The desire by government to achieve policy goals, such as job creation, may place pressure on the agencies to achieve such outcomes. Perceptions of the emphasis of agencies on job creation were also demonstrated in the enterprise interviews in Chapter 7. Interviewees SUP4 and REJ1 in particular perceived the support agencies to only provide support to projects which would result in job creation. This reflects the juxtaposition between enterprise support objectives (job creation) and the goals of the enterprise itself. As such, support may not be issued to enterprises that require it, and the potential for enterprise agencies to address market failure for the wider population of enterprises is limited due to their mandate to create employment. Furthermore, the emphasis of the agencies on the potential job creation of an applicant enterprise may also represent a form of selection bias, over and above what was referred to in Section 10.3.5, whereby agencies select enterprises based on their capacity to meet agency and policy objectives. The achievement of job creation objectives may in fact outweigh the market failure rationale, as outlined in Section 10.3.4. Indeed, commenting on market failure, Storey (2004) stated that interventions in the SME sector often target job creation rather than targeting improvement in the supply of finance. As discussed in this section, the findings support Storey's (2004) statement.

It was proposed, following the review of literature, that if support is issued where it is not relevant, then it would not make any difference to the enterprise, thus leading to deadweight (line 8 in Figure 10.1). While no evidence of such a relationship was found, as discussed above, the selection of enterprises based on their capacity to create jobs may be deemed as selection bias.

#### **10.3.7 Additionality**

As discussed in Chapter 4 deadweight is the inverse of additionality. Where additionality refers to the greater level of activity that results from intervention, deadweight refers to the level of activity which exists without intervention (Lenihan et al, 2005). The distinction between deadweight and additionality, in terms of job creation, was discussed in Section 10.2 of this chapter. Furthermore, the relationship between additionality and deadweight was indicated in terms of enterprise growth and development, with those in full deadweight categories less likely to perceive the influence of support on firm growth than enterprises in partial/zero deadweight categories (Table 6.23). There was further evidence as to the types of additionality that state sponsored enterprise support creates. In the survey of enterprises, those supported enterprises in partial deadweight and zero deadweight categories were asked the reasons why their project would have been changed or abandoned in the absence of support. Similar to Lenihan (1999) the overwhelming reason for changes/abandonment of projects in the absence of support was due to lack of finance. Such a feature of support is similar to input additionality which refers to the concept that an enterprise is encouraged to invest in a project, following receipt of government support (Heijs, 2003; Georghiou, 2004). However, a minority of enterprises cited other factors which would have caused them to delay, scale down or abandon their projects, including too much risk associated with the activity, uncertainty of its commercial feasibility, uncertainty of its technical feasibility, lack of management/marketing skills, lack of technical skills and loss of confidence in the activity. These aspects reflect behavioural additionality, which was defined by Georghiou (2004) as a change to behaviours as a result of receiving support. The interviews with enterprises revealed similar findings, with supported enterprises citing the behavioural impacts of support much more frequently than rejected or unsupported enterprises. The interviewees from the support agencies also explained that support was more than solely a source of finance. As evidenced by interviewee EI1, support encourages enterprises to take risks, while interviewee EI4 explained that support encouraged enterprises to engage in activities which they would not otherwise do.

By comparison, rejected enterprises which abandoned/changed their project also primarily cited lack of finance as the reason, but were much less likely to cite behavioural aspects than their supported counterparts. However, one agency interviewee stated that enterprises may approach the agency for support initially to address finance, but having gone through the process may realise other benefits of support retrospectively. This may explain why supported enterprises more frequently cite behavioural aspects than their unsupported counterparts. Furthermore, supported enterprises were also more likely to receive soft-supports, as part of a package of support. Supported enterprises generally had positive perceptions of soft supports and their impacts on developing exports, improving efficiency, enterprise planning and management development.

## 10.4 Summary

This chapter examined the findings from this research in the context of the literature surround inefficiencies of government support. Whilst prior studies which have investigated deadweight in an Irish context report higher levels of this concept, the findings of this research differ in that lower levels of deadweight were found. The possible rationale for this may in part be due to methodological differences and also the underlying economic conditions during which this research was conducted. Furthermore, this research finds that deadweight is not as influential on the effectiveness of support as initially documented in the literature. This stems from the difference of the interpretation of partial deadweight which in itself is misleading. Whilst regarded as an inefficiency in previous studies, such deadweight in reality is construed as inherent in the achievement of enterprise goals. However, the effect of deadweight, both full and partial, is encapsulated into the cost of job creation to the state. Moreover, characteristics of deadweight enterprises proposed in previous studies were not found to be significant in this research and hence offer not insights into how deadweight might be addressed.

This study aimed to develop a greater understanding of deadweight through examining other inefficiencies associated with enterprise support. To this end, a series of propositions were developed to describe the relationship between each inefficiency and deadweight, illustrated in Figure 10.1. Evidence to support these propositions was only found for a limited number of these concepts, namely links between selection bias, substitution and deadweight. However, the analysis has revealed new perspectives regarding the inefficiencies which are associated with enterprise support.

Briefly, this commences with the selection process. Agencies appear to select enterprises for financial support based on a number of features referred to in the agency interviews, such as confidence in the promoter, commercial viability and market potential, technical viability and, in the case of EI, the presence of a management team. However, other features appear to be involved in selection such as the greater ability of supported enterprises to raise finance and the propensity of the enterprise to create jobs. As such there is selection bias on a considerable number of enterprise features. The requirement for the agency to fulfil its mandate of job creation, as dictated by state policy, appear to outweigh the rationale for supporting enterprises, which is market failure. Therefore, some of those enterprises which are most prone to market failure and some of those enterprises which do not fulfil job creation within approximate cost per job limits will not receive support. Thus the market failure rationale is diluted and there is a mismatch between support objectives and enterprise goals. Those enterprises which are supported are more financially stable and thus the likelihood for the enterprise to be able to substitute or displace private finance for support, increases. Therefore, selection bias and the capacity for substitution results in the potential for deadweight.

Those enterprises where full deadweight is perceived are also less likely to perceive impacts of support on enterprise growth and development. Yet there are features of support which mitigate for partial deadweight. Support enables enterprises to leverage additional finance from the private sector and achieve faster growth and/or grow to a greater degree. To a lesser extent, there are perceived behavioural influences such as lower risk aversion and greater levels of confidence in the enterprise. Furthermore, the impacts of soft-supports, when combined with financial support, are realised. Finally, there are potential spillovers, whereby support frees up capital for investment in unsupported activities of the business. By comparison, those enterprises which are rejected for support are more likely to reduce or abandon their plans for growth, while those who do not apply are more likely to make smaller, more prudent investments in their enterprises, relative to supported enterprises.

The next and final chapter concludes the thesis, examining how the research has addressed the research objectives, the contribution of this research, the implications for academia and policy makers, the limitations of this study and recommendations for future research. **Chapter 11 - Conclusions and Recommendations** 

#### **11.1 Introduction**

This chapter concludes the thesis with a concise summary of the key arguments which have emerged from the research. It begins by reiterating the research question and objectives in order to frame the conclusions. This is followed by a presentation of the findings and discussion relating to each of the objectives. The contribution of this research is then established, followed by the implications and limitations of the study. Finally, this chapter contains recommendations for future research arising from the research conducted.

# **11.2 Research Question and Objectives**

This research was undertaken to develop a more in-depth understanding of the concept of deadweight. The study was carried out in the context of the Irish enterprise support system, specifically drawing on the 2008 to 2011 time frame, involving the two main support agencies which were in operation at that time. Based on the limited body of extant literature on enterprise support inefficiencies and deadweight, as illustrated in Chapter 4, the research question and objectives were then developed in Chapter 5, and are reiterated below. The research question is:

To gain an understanding of the concept and consequence of deadweight from the perspectives of enterprise support agencies and owner/managers of SMEs

In order to address the research question, the following objectives were developed:

- I. What are the reasons why enterprises seek financial support and what is the rationale for government agencies providing financial support?
- II. How do support agencies select enterprises for financial support and under what conditions is support allocated to enterprises?
- III. To what extent is financial support a catalyst for the development of recipient enterprises, relative to unsupported enterprises?

In order to answer the research question and address the objectives, mixed methodology research was carried out to gather the perceptions of supported and unsupported enterprises, and of the agencies which provide the support. Based on this research, the conclusions of what has been found for each of the objectives are presented in the next section.

# **11.3 Conclusions**

## 11.3.1 Reasons for providing and seeking financial support

In terms of the first objective, the most frequently cited rationale for providing financial support by the agencies was market failure. Financial support is provided to supplement an enterprise's finances and to help leverage finance from the private sector. However, the rationale for providing financial support (market failure) appears to be overshadowed by the agencies' objectives in providing financial support and guided by the overarching policy developed at government level. The reasons for providing support are primarily aimed at job creation, with secondary objectives of export and market development, R&D and innovation, skills development and behavioural change (i.e. incentivising enterprises to grow, develop and engage in riskier projects). In addition, financial support is provided to assist enterprises in developing faster or developing on a larger scale. The agencies aim to achieve these objectives, in some cases where there is no market failure, and at the other extreme will not provide finance to enterprises which are most exposed to market failure.

From an enterprise perspective, the overwhelming reason for seeking financial support is for the financial input, either due to lack of finance availability or to ease cash flow. The funding is sought to assist with developmental projects which vary considerably from enterprise to enterprise.

However, given that enterprises which were rejected for support, perceived a greater level of difficulty in raising finance than their supported counterparts, market failure cannot be assumed to be the feature that guides the supply of support. Equally, job creation is not typically an objective of the enterprise, but rather a potential outcome for only some of the enterprises' development plans. As such, within the Irish system of enterprise support, the reasons for supplying support and the reasons for seeking it can be in juxtaposition.

#### **11.3.2 Selection of Enterprises for Support**

With regard to the second research objective, enterprises are selected for support based on the perceived credibility of the promoter and, in the case of Enterprise Ireland, confidence in the management team supporting the promoter. However, there are a range of other selection criteria, particularly in the case of Enterprise Ireland, such as commercial viability, export and market potential, technical feasibility and the ability to raise matching finance. As such, the selection criteria are primarily based on tacit features of the enterprise and promoter and on abstract concepts. These are frequently evaluated by the agency based on the personal judgement and experience of the agency representatives. However, there appear to be other selection criteria which are not stated by the enterprise support agencies. Those enterprises which have greater access to finance are more likely to be supported, which challenges the market failure rationale for providing support. Furthermore, it appears that enterprises are selected for support based on their ability to create jobs, rather than necessarily achieving other policy goals of innovation and R&D. Overall, there appears to be selection bias in the Irish system of support, whereby those enterprises which are selected are perceived to be more viable and are better able to achieve the agencies' primary objective of job creation (the metric upon which enterprise agency performance is based). There may also be a degree of self-selection, whereby enterprises which are willing to go through the burdensome application process, the subsequent due diligence procedures and those which are most capable of promoting their development agenda to the agencies, will receive support.

Given the presence of such selection bias, it appears that enterprises which are selected for support are more likely to be able to substitute or displace private finance for public support and are more likely to demonstrate the potential for deadweight, relative to what would be possible for unsupported enterprises had they been supported.

#### 11.3.3 Support as a Catalyst for Development

The majority of supported enterprises, which received financial support, perceived that without such support their projects would have been scaled down and/or delayed (partial deadweight) or would have had to be abandoned (zero deadweight). The overwhelming reason for potential alteration or abandonment of these projects in the absence of support would have been due to enterprises not having access to sufficient finance. However, a minority of these enterprises also cited behavioural influences of support. Financial support being used to leverage finance from the private sector was also cited as a feature of support by some of the enterprises. Similar concepts were also cited by the agency representatives. Furthermore, the interviews with enterprises revealed that there may be spillover effects from the supported project to unsupported elements of the enterprise due to increased availability of finance. Given that the vast majority of enterprises surveyed would appear to rely on internal finances of the enterprise in the absence of support, these spillovers may potentially be replicated across much of the supported sample. Finally, the package of both financial and nonfinancial, soft-supports (such as training and mentoring) was also recognised as being beneficial by both agencies and by supported enterprises which were interviewed.

By comparison, enterprises which were rejected for financial support cited that they were more likely to have abandoned, scaled down or delayed their projects following rejection, than what was perceived by supported enterprises. In terms of non-applicant enterprises, these followed more prudent development agendas than what they would have had they successfully applied for support. However, enterprises which were rejected for financial support and those enterprises which did not apply for such financial support were less likely to perceive behavioural impacts of support and were also less likely to have perceived benefits from soft-supports.

Despite the multi-faceted benefits of support perceived by partial deadweight and zero deadweight projects, those who perceived full deadweight were less likely to perceive the influence of support on growth and development of the enterprise. Furthermore, despite the influence of support on partial deadweight projects, there are implications

for the cost-per-job created as a result of support. As such, partial and full deadweight projects result in a higher cost-per-job to the state.

# **11.4 Contribution of this Research**

The contribution of this research is fivefold. Firstly, this research contributes to theory by developing a novel theoretical framework which brings together distinct concepts, which have been examined in isolation in the limited body of extant research on state support for enterprises. The framework (presented in Figure 4.5, Section 4.5) describes the potential relationships between inefficiencies and deadweight, and deadweight and additionality, thus providing a more comprehensive and holistic theoretical view of enterprise support inefficiencies, than has ever been presented in prior research.

Secondly, this research further contributes to theory through simultaneously testing for each of the inefficiencies associated with enterprise support, for the first time, thus developing a greater understanding of these as isolated concepts, of the links between these concepts and through identification of misconceptions of these concepts in previous literature concerning enterprise support evaluation.

Thirdly, this research makes a considerable methodological contribution. Previous studies of deadweight have solely examined it from the perspectives of supported enterprises, rather than also examining unsupported enterprises. This research not only followed Storey's (1998) recommendations of including a sample of unsupported enterprises in evaluation, but added to them. It did so through the inclusion of three cohorts of enterprises matched based on the sectors in which they operated: those which had been supported by state agencies, those which had been rejected for support by agencies and those which had never applied for support. Furthermore, the perceptions of enterprise support agency staff were captured, which are typically excluded from evaluations. This approach not only made a methodological contribution but a theoretical one, allowing for the development of more balanced arguments, and also informed the contextualisation of the research.

Fourthly, this research contributes to policy debate, in what was a particularly difficult era in Ireland's economic history. During the 2008 to 2011 period there had been an

emphasis placed on job creation by government, while there had also been an impetus to maximise the impact in all areas of government expenditure. Through this research, the cost effectiveness of the provision of state enterprise support, as posited by the Irish state enterprise agencies and policy makers, has been challenged. Conversely, this research has offered insight into how the provision of support can positively influence an enterprise's actions.

Finally, despite being confined to the Irish context, this research has made a theoretical and methodological contribution to the evaluation of state intervention to support the growth and development of SMEs, in an international context. Many of the concepts explored in this thesis and many of the features of the Irish enterprise support system are applicable in international jurisdictions. The concepts from the theoretical framework, the conceptualisation, the methodological development and the findings and discussion may all have lessons for other government's (both regional and national) enterprise policies and interventions for SMEs. Furthermore, the concepts and methodologies used in this research can be used in other jurisdictions to evaluate that government's enterprise policies and interventions for the development and growth of SMEs.

## **11.5 Implications and Limitations of Research**

The findings and analysis in this thesis, suggest a number of implications for enterprise policy and supports. However, there are also a number of limitations of this research which must be addressed. Both of these are presented in this section.

### **11.5.1 Implications for Policy**

The study has highlighted a number of challenges for both the evaluation and implementation of policy, as follows.

Financial support has largely been perceived as successful, but only among a small cohort within the wider enterprise population. The results of this research have highlighted that there are a number of gaps in the system of support where enterprises are not receiving assistance, where support is required. The rigidity of the remit of the enterprise support agencies in terms of the population that they serve, as set out in policy, mean that potential economic growth is being hindered. This is exacerbated by what appears to be selection bias on the part of the agencies.

Furthermore there is rigidity in the way the value of support provided to enterprises is decided upon and how the successes of enterprise support agencies are measured, with a strong emphasis on job creation and cost per job metrics. This not only creates the juxtaposition between the goals of the agency and the goals of the enterprise, but also creates conflicting goals within the agencies themselves, as increased employment does not necessarily result in increased innovation and market development by the enterprises.

While the level of deadweight and the implications of deadweight have been found to be relatively low, deadweight does impact on cost-per-job figures. With a higher cost per job in enterprise support schemes, comes a higher opportunity cost. The implication for policy makers is that they need to examine whether support represents value for money, relative to public expenditure in other activities, while also being cognisant of the wider benefits that enterprise support brings to the economy in terms of positive externalities.

#### 11.5.2 Limitations

Throughout the analysis and presentation of the results, the author has discovered a number of limitations of this research, which are presented as follows.

a. There were a number of limitations regarding the sample size. The sample of rejected enterprises is small due to difficulty in finding such enterprises. Enterprises that receive support are listed in publicly available information but those enterprises that were rejected for support are not. Due to data protection concerns the enterprise agencies cannot divulge this information. However, the way in which the enterprise agencies operate may also distort the true picture. For example, one of the findings from the agency interviews indicated that enterprises would not be brought through the application process if the agency

did not believe that they would be successful in their application. As such, the population of enterprises which are actually rejected for support, as opposed to being turned away at an initial, informal enquiry, may be very small. Furthermore, the population of non-applicant enterprises was also relatively small. This was primarily due to the focus of this research on matching samples by sector, resulting in a very small population from which to draw the sample. There was also a small sample of City and County Enterprise Board (CEB) supported enterprises. As discussed in Section 5.7.5, this was primarily due to lack of availability of annual reports for some CEBs, inconsistent reporting within annual reports for CEBs and many CEB clients not having an online presence. Finally, the author had difficulty in recruiting enterprise interviewees. The time constraints on owner/managers meant that many were reluctant to complete both a questionnaire and subsequently take part in an interview.

- b. The instruments used in this research have their own limitations as discussed in Sections 5.7.2 and 5.8. This research used online questionnaires, which meant enterprises which did not have an online presence were excluded. Furthermore, the interviews were primarily conducted via telephone, rather than face to face, which prevented the recording of non-verbal cues. Finally, telephone interviews do not have the same potential for building trust between the interviewee and interviewer, although the author did not perceive this to be the case.
- c. Similar to previous studies, the majority of the data is based on perceptions and subject to biases by the respondents and interviewees from both enterprises and agencies. As Lenihan (1999) stated there is a possibility in such a study of the 'respondent effect', whereby interviewees would exaggerate or understate the impact of support due to concerns about the availability of future funding. Furthermore, this is an ex-post evaluation which relies on the accuracy of the memory of participants in the study. Arguably, a longitudinal study may have more accurately captured the events associated with the application for support and the implementation of the project. However, due to the time it would take for an application for support to be evaluated by an agency and for an enterprise to implement the project contained within the application for support, it would not have been feasible in the timeframe of a PhD research study.

- d. Due to the burdensome nature of questionnaires and the time limitations of SME owner/managers, only a limited array of data could be gathered. Furthermore many metrics associated with enterprise performance are of a sensitive nature and respondents may not be willing to share such information. This has resulted in a limited number of features by which to compare and contrast respondents and fully gauge the effects of support on the enterprise. This was particularly with respect to data on turnover, exports and innovation outputs, all of which are elements which enterprise agencies seek to promote. As such, though this study was able to identify various types of additionality, it was not able to quantify additionality across all measures.
- e. This analysis was confined to 2008-2011 and set against the backdrop of a substantial economic shock and crisis in Ireland. Unsurprisingly job creation was central to the mission of agencies at the time. Now that the Irish economy is in recovery, the approach of the agencies may be different. Furthermore, with the winding down of the CEBs and subsequent establishment of Local Enterprise Offices (LEOs), the system of support has changed.

# **11.6 Recommendations for Future Research**

There are a number of recommendations for future research emerging from this study, which may further build on the understanding of enterprise support and its related concepts. They are as follows:

a. As previously mentioned this research is potentially subject to biases from participants and also relies on the accuracy of memory. Another approach to adopt for future research would be a longitudinal study, involving a case study approach, of enterprises as they apply for support. This may result in greater depth of information on each of the cases to better isolate the effects of support. While such an approach was initially considered by the author the time frame of conducting such a study was not thought to be feasible for a PhD, due to the time taken to apply for support, the time taken to implement support and the time taken to realise the results of support. Furthermore, such a study would require the cooperation of the support agencies to recruit a suitable sample.

- b. As reported in Chapter 2, more recent Irish enterprise policy such as the National Policy Statement on Entrepreneurship in Ireland 2014 (DJEI, 2014) noted that the role of enterprise agencies in facilitating networks between financiers and entrepreneurs may be even more important than the provision of support itself. Indeed, in the Irish context there have been a number of schemes developed to improve access to finance for SMEs without offering the same type of financial support traditionally offered by agencies such as EI and the CEBs (and more recently the Local Enterprise Offices). Holton, McCann, Prendergast and Purdue (2013) provided details of some of these which included Microfinance Ireland (an Irish Government organisation offering loans to those micro enterprises which were refused loans elsewhere), the Temporary Loan Guarantee Scheme aimed at all SMEs, and indirect support through the provision of capital by the National Treasury Management Agency in partnership with private investors to establish a number of funds aimed at SMEs. It would be interesting to conduct a comparative study between such schemes and the enterprise support agencies. Conducting such evaluations may identify which type of scheme is better at achieving the rationale for intervention (i.e. addressing market failure). Furthermore such an evaluation may also identify if there are any impacts which can be achieved by EI type supports and cannot be achieved by such schemes. Thus the role of EI and similar agencies might be better defined and better targeted to where support is most required.
- c. Finally, many other countries, particularly in Europe, intervene with supports for SMEs. These vary considerably in terms of the agencies which are involved, supports offered and the types of enterprises and entrepreneurs which are targeted. A comparative study between the Irish example and other schemes may yield interesting insights into whether any schemes are more effective, particularly with regard to minimising deadweight. For example, as presented in Chapter 4, there have been a number of studies conducted in other jurisdictions such as Finland (Tokila and Haapanen, 2012) and Czech Republic and Slovakia (Sipikal, Pisár and Labudová, 2013) which revealed a degree of deadweight. It would be interesting to compare schemes from the perspectives of both agencies and enterprises, to establish if there are any differences in selection which may

reduce deadweight and also to examine if some of the other inefficiencies, discussed in this thesis, are present in those systems of support.

# **11.7 Conclusion Summary**

This chapter presented the conclusions of this research in the context of each of the research questions. It has been found through this research that the rationale for supporting enterprises is market failure, but that this rationale is overshadowed by the objectives of the enterprise support agencies. State enterprise support agencies also engage in selection bias by supporting enterprises which they perceive to be more commercially viable and which have a greater likelihood or raising finance and overcoming market failure, without the requirement for support. This in turn can lead to deadweight.

While deadweight has been perceived less frequently in this research, compared to previous studies, the implications of deadweight is that support is more costly to the state than what has been espoused by the agencies. This chapter has identified the implications of these findings for policy makers through identifying potential failings of the Irish system of support for SMEs, while also being cognisant of the impact of such support.

While recognising the limitations of this research, this chapter has also outlined the considerable contribution that this research has made. Finally, with consideration for the limitations of this research, recommendations for future research have been outlined, identifying an alternative methodological approach while also suggesting different research contexts for comparative research.

# **Bibliography**

Audretsch, D.B., I. Grilo and R. Thurik, 2007. *Handbook of Research on Entrepreneurship Policy* Edward Elgar Publishing

Berger, A and Udell, G, 1998. "The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle" *Journal of Banking and Finance* Vol 22, pp. 613-673

Bergstrom, F., 2000. "Capital subsidies and the performance of firms", *Small Business Economics*, Vol. 14, No. 3, pp. 183-193.

Birch, D., 1979. *The Job Generation Process*. Cambridge, MA: US Department of Commerce, MIT Program on Neighbourhood and Regional Change

BIS, 2009. Research to improve the assessment of additionality. BIS Occasional Paper No. 1

Boocock, J.G., J. Loan-Clarke, A.J. Smith and J. Whittaker, 1998. "Management training and development in small and medium-sized enterprises: An assessment of the effectiveness of Training and Enterprise Councils in the East Midlands" *Journal of Small Business and Enterprise Development*, Vol 6, No 2, pp 178-190

Boter, H. and A. Lundström, 2005. "SME perspectives on business support services: The role of company size, industry and location" *Journal of Small Business and Enterprise Development*, Vol. 12, No. 2, pp 244-258

Brace, N., R. Kemp and R. Snelgar, 2003. SPSS for Psychologists: A Guide to Data Analysis using SPSS for Windows. 2<sup>nd</sup> Edition. Basingstoke: Palgrave Macmillan

Bryman, A., 2004. Social research methods. Oxford : Oxford University Press

Burrell, G. and G. Morgan, 2008. *Sociological paradigms and organisational analysis: elements of the sociology of corporate life*. Aldershot: Ashgate

Cassar, G., 2003. "The financing of Business Start-ups" *Journal of Business Venturing* Vol. 19, No. 2, pp. 261–283

Clarysse, B., M. Wright and P. Mustar, 2009 "Behavioural additionality of R&D subsidies: A learning perspective" *Research Policy* Vol. 38, No. 10, pp. 1517–1533

CSO, 2011. Access to Finance, Dublin: The Stationery Office

CSO, 2012. Community Innovation Survey 2008-2010, Dublin: The Stationery Office

CSO, 2013. Business in Ireland 2011, Dublin: The Stationery Office

CSO, 2014. Business in Ireland 2012, Dublin: The Stationery Office

CSO, 2016a [Online] *Business Demography* (cited: 30 May 2016) Available from < http://cso.ie/px/pxeirestat/Database/eirestat/Business%20Demography/Business%20De mography\_statbank.asp?sp=Business%20Demography&Planguage=0>

CSO, 2016b [Online] *BERD Statistics* (cited: 30 May 2016) Available from < http://cso.ie/px/pxeirestat/Database/eirestat/BERD%20Size%20of%20Enterprise/BERD%20Size%20of%20Enterprise\_statbank.asp?SP=BERD%20Size%20of%20Enterprise& Planguage=0>

CSO, 2016c [Online] *Enterprise Deaths* (cited: 30 May 2016) Available from < http://cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?maintable=BRA13&PLangu age=0>

Culliton, 1992. A Time for Change: Industrial Policy for the 1990's. Report of the Industrial Policy Review Group, Dublin: The Stationary Office Curran, J., 2000. "What is Small Business Policy in the UK For? Evaluation and Assessing Small Business Policies", *International Small Business Journal*, Vol. 18, No. 3, pp. 36 – 50.

Curran, J. and R. A. Blackburn, 2001. *Researching the Small Enterprise*. London : Sage, 2001.

Czarnitzki, D. and G. Licht, 2006. "Additionality of public R&D grants in a transition economy: The case of Eastern Germany" *Economics of Transition*, Vol. 14, No. 1 2006, pp. 101–131

Dáil Éireann Debate, 1992. Written Answers. - Culliton Committee Report. Wednesday,
7 October 1992 [Online] (cited: 29 August 2016) Available from <a href="http://oireachtasdebates.oireachtas.ie/debates%20authoring/debateswebpack.nsf/takes/dail1992100700033>">http://oireachtasdebates.oireachtas.ie/debates%20authoring/debateswebpack.nsf/takes/dail1992100700033></a>

Dennis, W.J. 2005. "Public Policy, Competition and Entrepreneurship in the United States: The Wheat, The Chaff, and The Irrelevant". Presented at United States Association for Small Business and Entrepreneurship December 31, 2005

Department of Finance, 2009. *Report of the Special Group on Public Service Numbers* and Expenditure Programmes

Department of Finance, 2010. *The National Recovery Plan 2011-2014*. Dublin: The Stationary Office

Department of Enterprise, Trade and Employment, 2003. *Review of Industrial Performance and Policy 2003*, Dublin: The Stationary Office

Department of Public Expenditure and Reform, 2011. Infrastructure and Capital Investment 2012-16: Medium Term Exchequer Framework Diamantopoulos, A. and B. Schlegelmilch, 2004. *Taking the fear out of Data Analysis*. London: Thompson Learning

DJEI, 2008. Annual Output Statement 2008

DJEI, 2009. Annual Output Statement 2009

DJEI, 2010. Annual Output Statement 2010

DJEI, 2012. Action Plan for Jobs 2012

DJEI, 2013. Action Plan for Jobs 2013

DJEI, 2014a. Action Plan for Jobs 2014

DJEI, 2014b. National Policy Statement on Entrepreneurship in Ireland 2014

DJEI, 2015a. Action Plan for Jobs 2015

DJEI, 2015b. Enterprise 2025: Ireland's National Enterprise Policy 2015-2025

DJEI, 2015c. Evaluations of State Supports for Enterprise: Synthesis Report and Conclusions July 2015

DJEI, 2015d. Evaluation Enterprise Ireland Company Expansion Supports 2005-2010

DJEI, 2015e. Enterprise Ireland Job Expansion Fund 2010-2012 (Interim Evaluation)

Easterby-Smith, M., R. Thorpe and A. Lowe, 2002. *Management research : an introduction*. London : Sage.

EIM, 2004. Review of methods to measure the effectiveness of state aid to SMEs: Final report to the European Commission.

Enterprise Ireland, 2007. Annual Report

Enterprise Ireland, 2008. Annual Report

Enterprise Ireland, 2009. Annual Report

Enterprise Ireland, 2010. Annual Report

Enterprise Ireland, 2011. Annual Report

Enterprise Ireland, 2012. Annual Report

Enterprise Ireland, 2013. Annual Report

Enterprise Ireland, 2014. Annual Report

Enterprise Strategy Group, 2004. *Ahead of the Curve: Ireland's Place in the Global Economy*, Dublin: Forfás

European Commission, 2009. State Aid Rules

European Commission, 2008. Small Business Act for Europe

European Commission, 2015a. Results of the financial instruments under the 2007-2013 Competitiveness and Innovation Framework Programme

European Commission, 2015b COSME: Europe's Programme for SMEs

European Commission, 2016a. [Online] (cited: 15 June 2016) Available from < http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition/>

European Commission 2016b [Online] (cited: 07 August 2016) http://ec.europa.eu/programmes/horizon2020/en/area/smes

Finance (Miscellaneous Provisions) Act, 1956. Irish Statute Book [Online](cited: 7April2012)Available<http://www.irishstatutebook.ie/1956/en/act/pub/0047/print.html>

Finance (Miscellaneous Provisions) Act, 1958. Irish Statute Book [Online](cited: 7April2012)Available<http://www.irishstatutebook.ie/1958/en/act/pub/0028/print.html>

Fitzpatrick Associates, 2003. Review of the Role of County and City Enterprise Boards in the Development of Micro-Enterprises, Report sponsored by Forfás

Fitzsimon's, P. and C. O'Gorman, 2011. Entrepreneurship in Ireland 2010: Global Entrepreneurship Monitor.

Fitzsimon's, P. and C. O'Gorman, 2012. Entrepreneurship in Ireland 2011: Global Entrepreneurship Monitor.

Fitzsimon's, P. and C. O'Gorman, 2013. Entrepreneurship in Ireland 2012: Global Entrepreneurship Monitor.

Fitzsimon's, P. and C. O'Gorman, 2014. Entrepreneurship in Ireland 2013: Global Entrepreneurship Monitor.

Forfás, 1996. Shaping Our Future

Forfás, 2000. Enterprise 2010: A New Strategy for the Promotion of Enterprise in Ireland in the 21st Century

Forfás, 2010. Making it Happen: Growing Enterprise for Ireland

#### Forfás, 2014. Evaluation of enterprise supports for start-ups and entrepreneurship

Freel, M.S., 1998. "Policy, Prediction and Growth: Picking Start-Up Winners?" *Journal* of Small Business and Enterprise Development Vol 5, No. 1, pp. 21-32

Georghiou, L. 2004. "Evaluation of Behavioural Additionality Concept Paper"

Government for National Recovery 2011-16, 2011. *Government for National Recovery* 2011-16

Hallberg, 1999. "Small and Medium Scale Enterprises: A Framework for Intervention", The World Bank Small Enterprise Unit

Hanley, M. and B. O'Gorman, 2004. "Local Interpretation of National Microenterprise Policy", *International Journal of Entrepreneurial Behaviour & Research* Vol. 10, no. 5, pp 305-324

Hart, M. and H. Lenihan, 2004. "The Positive Externalities of Financial Assistance to Irish Firms: Methodological Reflections and the Implications for Estimates of Additionality", Preliminary draft paper for presentation at the Regional Studies Association-International Conference-Europe at the Margins: EU Regional Policy, Peripherality and Rurality, 15th and 16th April 2004, Angers, France.

Hart, M. and H. Lenihan, 2006. "Estimating Additionality and Leverage: The Interplay between Public and Private Sector Equity Finance in Ireland (2000 – 2002)." *Venture Capital*, Vol. 8, No. 4, pp. 331 – 351

Hart, M., McGuinness, S., O'Reilly, M. and Gudgin, G. ,2000. "Public Policy and SME Performance: The Case of Northern Ireland in the 1990s", *Journal of Small Business and Enterprise Development*, Vol. 7, No. 1, pp. 27–41

Henry, C., F. Hill and C. Leitch, 2003. "Developing a coherent enterprise support policy:

a new challenge for governments" *Environment and Planning C: Government and Policy* Vol 21, pp. 3-19

Heijs, J., 2003. "Freerider behaviour and the public finance of R&D activities in enterprises: The case of the Spanish low interest credits for R&D", *Research Policy*, Vol. 32, pp. 445–461

Hirschey, M, 2003. Managerial Economics 10th Edition, Thomson Learning.

Audretsch, D.B., I. Grilo and R. Thurik, 2007. *Handbook of Research on Entrepreneurship Policy* Edward Elgar Publishing

Holton, S., F. McCann, K. Prendergast and D. Purdue, 2013. *Policy measures to improve access to credit for SMEs: a survey*. Central Bank of Ireland, Quarterly Bulletin 04 / October 13

Honohan, P., 1998. *Key issues of cost-benefit methodology for Irish industrial policy*, ESRI General Research Series

Industrial Development Act, 1978. *Irish Statute Book* [Online](cited: 7 April 2012)Available from <a href="http://www.irishstatutebook.ie/1978/en/act/pub/0029/index.html">http://www.irishstatutebook.ie/1978/en/act/pub/0029/index.html</a>

Industrial Development Act, 1981. Irish Statute Book [Online](cited: 7 April 2012)Available from <http://www.irishstatutebook.ie/1981/en/act/pub/0013/print.html#sec8 >

Industrial Development Act, 1986. *Irish Statute Book* [Online](cited: 7 April 2012)Available from <a href="http://www.irishstatutebook.ie/1986/en/act/pub/0009/print.html">http://www.irishstatutebook.ie/1986/en/act/pub/0009/print.html</a>

Industrial Development Authority Act, 1950. *Irish Statute Book* [Online](cited: 7 April 2012)Available from <a href="http://www.irishstatutebook.ie/1950/en/act/pub/0029/print.html">http://www.irishstatutebook.ie/1950/en/act/pub/0029/print.html</a>

Jenssen, J.I. and P.A Havnes, 2002. "Public intervention in the entrepreneurial process: A study based on three Norwegian cases", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 8 No. 3, pp.173 - 187

Lawless, McCann and McIndoe-Calder, 2012. "SMEs in Ireland: Stylised facts from the real economy and credit market" Paper presented at the Central Bank of Ireland conference: The Irish SME Lending Market: Descriptions, Analysis, Prescriptions, March 2nd 2012

Lenihan, H., 1999. "An evaluation of a regional development agency's grants in terms of deadweight and displacement", *Environment and Planning C: Government and Policy*, Vol. 17 No. 3, pp. 303 – 318

Lenihan, H., 2002. "Evaluating the Effects of Irish Industrial Policy: Estimating Predictive (Logit) Models for Deadweight and Displacement." Paper presented at: International Conference on Policy Modeling (EcoMod 2002), Brussels 4-6 July 2002

Lenihan H. and M. Hart, 2003 "Evaluating the Impact of Enterprise Ireland Assistance: methodological considerations when estimating deadweight and displacement" submitted to EUNIP Annual Conference, Porto, Portugal, September.

Lenihan, H. 2004. "Evaluating Irish industrial policy in terms of deadweight and displacement: a quantitative methodological approach" *Applied Economics*, No. 36, pp. 229–252

Lenihan, H. and M. Hart, 2006. "Evaluating the additionality of public sector assistance to Irish firms: A question of ownership?". *Policy Studies*, Vol. 27, No 2, pp. 115-133

Lenihan, H., 2011 "Enterprise policy evaluation: is there a 'new' way of doing it?", *Evaluation and Program Planning*, Vol. 34 No. 4 pp. 323-332

Lenihan, H., M. Hart and S. Roper, 2005. "Developing an evaluative framework for industrial policy in Ireland: Fulfilling the audit trail or an aid to policy development?" Quarterly Economic Commentary Summer 2005, Economic and Social Research Institute, (June), pp. 16-85.

Mason, C. and R. Brown, 2013. Creating good public policy to support high-growth firms" *Small Business Economics* Vol. 40, No. 2, pp. 211–225

Miles, M.B. and A. M. Huberman, 1994. *Qualitative data analysis : an expanded sourcebook* Thousand Oaks : Sage Publications

McCarthy, P. 2009. "On the Entrepreneurship Policy Discourse in Ireland: Between Incentives for Success and Remedies for Failure"

OECD, 2004. Evaluating Local Economic and Employment Development – How to assess what works among programmes and policies.

OECD, 2014, Ireland's Action Plan For Jobs: A Preliminary Review

O'Gorman, W. and T. Cooney, 2007. "An Anthology of Enterprise Policy in Ireland" Irish Journal of Management, Vol.28, no.2, pp.1-28

Picard, P., 2001. "Job additionality and deadweight spending in perfectly competitive industries: the case for optimal employment subsidies" *Journal of Public Economics*, No. 79, pp 521–541

Policy Research in Engineering, Science and Technology (PREST), 2002 Assessing the Socio-economic Impacts of the Framework Programme

Potter, J., 2005. "Entrepreneurship Policy at Local Level: Rationale, Design and Delivery" *Local Economy*, Vol. 20, No. 1, pp. 104–110

Robson, C., 2002. Real world research : a resource for social scientists and practitioner-researchers. Oxford, UK ; Madden, Mass. : Blackwell Publishers.

Roper, S. and M. Hart, 2005. "Small Firm Growth and Public Policy in the UK: What Exactly are the Connections?" Aston Business School Working Paper

Roper, S. and N. Hewitt-Dundas, 1998. "Grant Assistance and Small Firm Development in Northern Ireland and The Republic of Ireland", Northern Ireland Economic Research Centre Working Paper series, No. 38.

Saunders, M., P. Lewis and A. Thornhill, 2006. *Research methods for business students*. *Harlow* : Financial Times Prentice Hall, 2006

Sekaran, U. 1992. *Research Methods For Business: A skill-building approach*. Chichester: Wiley

Sekaran, U. and R. Bougie 2010. *Research methods for business : a skill-building approach*. Hoboken, N.J. : Wiley ; Chichester : John Wiley

Silverman, D. 2001. Interpreting qualitative data: methods for analyzing talk, text and interaction. London : SAGE, 2001

Sipikal, M., P. Pisár and V. Labudová, 2013. "Are Subsidies Really Needed? The Case of EU Regional Policy in the Czech and Slovak Republics", *Ekonomie*, Vol. 16, No. 4, pp. 30-41

Stevenson, L. and A. Lundström, 2001. "Patterns and trends in entrepreneurship/sme policy and practice in ten economies" *Entrepreneurship Policy for the Future Series*, Vol 3

Söderbloma, A., M. Samuelssona, J. Wiklunda and R. Sandberg, 2015. "Inside the black box of outcome additionality: Effects of early-stage government subsidies on resource accumulation and new venture performance." *Research Policy* No. 44 pp. 1501–1512

Stiglitz, J.E. 1989. "Markets, Market Failures, and Development" *The American Economic Review* Vol. 79, No. 2 pp. 197-203

Stiglitz, J.E. 2002. "New perspectives on public finance: recent achievements and future challenges" *Journal of Public Economics* Vol. 86, pp. 341–360

Storey, D.J. 1994. Understanding the Small Business Sector, Cengage Learning EMEA

Storey, D.J., 1998. "Six Steps To Heaven: Evaluating the Impact of Public Policies to Support Small Businesses in Developed Economies" CSME Working Papers No 59

Storey, D.J., 2004. "Exploring the link, among small firms, between management training and firm performance: a comparison between the UK and other OECD countries" *International Journal of Human Resource Management* Vol.15 No.1 pp. 112–130

Storey, D.J. and F.J. Greene, 2010. *Small business and entrepreneurship* Financial Times Prentice Hall

Storey, D.J. and J. Potter, 2007. OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes OECD

Telesis, 1982. *Review of Industrial Policy: A Report Prepared by the Telesis Consultancy Group*, Dublin: National Economic and Social Council

The Advisory Group for Small Business, 2011. A Plan for Action: The Report of the Advisory Group for Small Business

The Industrial Grants Act, 1956. *Irish Statute Book* [Online](cited: 7 April 2012)Available from <a href="http://www.irishstatutebook.ie/1956/en/act/pub/0048/print.html">http://www.irishstatutebook.ie/1956/en/act/pub/0048/print.html</a>

The Underdeveloped Areas Act, 1952. *Irish Statute Book* [Online](cited: 7 April 2012)Available from <a href="http://www.irishstatutebook.ie/1952/en/act/pub/0001/print.html#sec4">http://www.irishstatutebook.ie/1952/en/act/pub/0001/print.html#sec4</a>

Thurik, R. and S. Wennekers, 2004. "Entrepreneurship, small business and economic growth", *Journal of Small Business and Enterprise Development*, Vol. 11 no. 1, pp.140 - 149

Tokila, A., M. Haapanen and J. Ritsilä, 2007. "Evaluation of Investment Subsidies: When Is Deadweight Zero?", Forthcoming in International Review of Applied Economics

Tokila, A. and M. Haapanen, 2012. "Evaluation of Deadweight Spending in Regional Enterprise Financing" *Regional Studies*, Vol. 46 No. 2, pp. 185–201

Verheul, I., Wennekers, S., Audretsch, D. and Thurik, R., 2001. 'An Eclectic Theory of Entrepreneurship: Policies, Institutions and Culture', Research Report 0012/E, Zoetermeer, March 2001

Witt, U., 2003. "Economic policy making in evolutionary perspective" *Journal of Evolutionary Economics* Vol. 13, pp. 77–94

Wren, C., 1994. "The Build-Up and Duration of Subsidy-Induced Employment: Evidence from U.K. Regional Policy" *Journal of Regional Science* Vol. 34, No. 3, pp. 387–410

Wren, C., 2003, "Informational Rents and Discretionary Industrial Assistance", Paper delivered to the RES Conference, University of Warwick, April 2003.

Wren, C. and D.J. Storey, 2002. "Evaluating the effect of soft business support upon small firm performance" *Oxford Economic Papers* Vol. 54, No. 2, pp. 334-365.

Wren, C. and M. Waterson, 1991. "The Direct Employment Effects of Financial Assistance to Industry," *Oxford Economic Papers*, Vol. 43, pp 116-138

## **Appendices**

## **Appendix A – Questionnaire**

Note: The questionnaire was programmed in such a way, that respondents only had to fill out questions relevant to them based on which of the three cohorts they fell into. For example, supported enterprises completed Q1-28, rejected enterprises completed Q1-12 and Q44-58, and non-applicants completed Q1-9 and Q59-62. Respondents would also automatically skip further questions depending on their responses to hypothetical counterfactual questions. Questions 28 to 43 were not used as these were developed for enterprises which were accepted in their applications for support but did not draw down; no such scenarios occurred among the sample.

Table A.1 presents the questions contained in the questionnaire according to the research questions with which they correspond and according to the cohort which answered them.

Research Objectives	All Enterprises	Supported Enterprises	Rejected Enterprises	Non- Applicant Enterprises
I. What are the reasons why enterprises seek financial support and what is the rationale for government agencies providing financial support?	Q9	Q10 to Q19, Q25 (Statements 8 and 10)	Q10 to Q12, Q44 to Q49, Q55 (Statements 8 and 10)	Q61 (Statements 1 and 3)
II. How do support agencies select enterprises for financial support and under what conditions is support allocated to enterprises?	Q1 to Q8	Q25 (Statements 2, 3, 4, 5, 6 and 9)	Q55 (Statements 2, 3, 4, 5, 6 and 9)	Q61 (Statements 2, 4, 5, 6, 7 and 8)
III. To what extent is financial support a catalyst for the development of recipient enterprises, relative to unsupported enterprises?	N/A	Q20 to Q24. Q25 (Statements 1 and 7)	Q50 to Q54, Q55 (Statements 1 and 7)	Q61 (Statement 10)

Table A.1: Survey Questions according to their corresponding research questions

Enterprise Support Questionnaire	
Introduction	
** **	
*1. Please select which best describes your com	ipany?
An independent, wholly irish owned company	
A subsidiary of a wholly irish owned company	
A subsidiary of a non-intel owned company	
A non-irish owned company	

I

Enterprise Sup	port Questionnaire	
Company detail	ls	
Please fill in the follow	ving details about your company	
*2. Company na		
	*	
	*	
*3. Year founde	d:	
Year (1111)		
*4. Current num	ber of employees	
Full-time		
Patkine		
*5. Your current	t position in the company	
****		
-	mpany ever been located in a business incubator?	
O *** O **		
0.		
		Page 2

Enterprise Support Questionna	aire
Incubator Details	
*7. Please specify the name of the	insufficience)
7. Please specify the name of the	incubator(s)
	*
*8. Please enter the years that you	r company was located in the incubator(s) (e.g. 2001
to 2003)	
	2

Enterprise Support Questionnaire
Interaction with state agencies
$^{st}$ 9. Up to the year ending 2011, had you ever applied for financial support (eg a grant or equity) from
C Enterprise Ireland
City and County Enterprise Boards (CEBa)
O Both Enterprise Ireland and City and County Enterprise Boards
None of the above

Applications for financial assistance         1. For applications to Enterprise Ireland, which of the following periods did you (Please leave blank if not applicable)         a. Apply for financial support         b. Get approval for financial support         a. Apply for financial support         b. Get approval for financial support         b. Get approval for financial support         b. Get approval for financial support         c. Det applications to the City and County Enterprise Boards (CEBs), which of the following periods did you (Please leave blank if not applicable)         a. Apply for financial support         b. Get approval for financial support         b. Get approval for financial support         b. Get approval for financial support         c. Draw down on financial support         c. Draw down on financial support         b. Get approval for financial support         c. Draw down on financi down down down down down down down down	Enterprise Suppo	ort Questionnaire		
(Please leave blank if not applicable)  a. Apply for financial support b. Get approval for financial support  Pre 2007  2006  2006  2006  2010  11. For applications to the City and County Enterprise Boards (CEBs), which of the following periods did you (Please leave blank if not applicable)  a. Apply for financial support b. Get approval for financial support c. Draw down on financial support  Applied Applied Deve Down  Applied Applied Deve Down	Applications for fi	nancial assistance		
b. Get approval for financial support c. Draw down on financial support Applied Approved Drew Down Pre 2007 2007 2006 2006 2010 2010 2010 2011 11. For applications to the City and County Enterprise Boards (CEBs), which of the following periods did you (Please leave blank if not applicable) a. Apply for financial support b. Get approval for financial support c. Draw down on financial support b. Get approval for financial support c. Draw down on financial support 4. Appled Approved Drew Down Pre 2007 2006 2010			, which of the following	periods did you
c. Draw down on financial support          Applied       Approved       Dreve Down         Pie 2007	a. Apply for financi	al support		
Applied       Approved       Drew Down         Pre 2007	b. Get approval for	financial support		
Pm 2007	c. Draw down on fi			
2006	Pre 2007	Applied	Approved	Drew Down
2006	2007	П	П	П
2010	2008			
2011       Image: Construction of the City and County Enterprise Boards (CEBs), which of the following periods did you (Please leave blank if not applicable)         a. Apply for financial support       b. Get approval for financial support         c. Draw down on financial support       C. Draw down on financial support         0007       Image: Construction of	2009			
following periods did you (Please leave blank if not applicable)  a. Apply for financial support b. Get approval for financial support C. Draw down on financial support  Applied Applied Approved Drew Down Pre 2007 Down Pre 200	2011			
a. Apply for financial support b. Get approval for financial support c. Draw down on financial support  Applied Approved  Pre 2007  Dots  Approved  Approved Approved  Approved Approved Approved  Approved Approved Approved Approved Approved Approved Approved Approved Approved Approved Approved Approved Approved Approved Appr				EBs), which of the
b. Get approval for financial support c. Draw down on financial support           Applied         Approved         Drew Down           Pre 2007	following periods d	id you (Please leave b	lank if not applicable)	
b. Get approval for financial support c. Draw down on financial support           Applied         Approved         Drew Down           Pre 2007	a. Apply for financi	al support		
c. Draw down on financial support  Applied Approved Drew Down  Pre 2007  2007  2006  2006  2006  2006  2010  2010  * 12. Please confirm if you were approved or rejected for the most recent of the above applications  Approved  Approved				
Pix 2007				
2007		Applied	Approved	Drew Down
2006     Image: Constraint of the second of th		H	H	
2006 Constraints of the above approved or rejected for the most recent of the above applications Constraints of the above approved or rejected for the most recent of the above applications Constraints of the above approved or rejected for the most recent of the above applications of the above applicatio		H	H	H
2011   * 12. Please confirm if you were approved or rejected for the most recent of the above applications  Approved		H	H	H
*12. Please confirm if you were approved or rejected for the most recent of the above applications	2010			
Approved	2011			
Approved	*12. Please confir	m if you were approve	d or rejected for the mo	st recent of the above
			-	
O Rejected	Approved			
	Rejected			

Enterprise Sup	port Questionnaire
Volume of fund	ing
value)	funding was approved in this most recent application? (e.g. grant
•	

Enterprise Support Questionnaire
Drawing down on support

Enterprise Sup	port Questionnaire
Funding details	
*15. What type	of funding was approved?
	(i.e. no money needed to be repaid to Enterprise Ireland/CEB)
O Partially repayable gr	ant
Wholly repayable gra	ntiloan
C Equity investment	
Other (please specify)	
*16. Please spe	cify what category of funding/grant was approved (EG Employment
	t-up package, capital grant, feasibility study grant, etc)
	*
*17. What value	of support was drawn down? (i.e. how much of the approved amount
did you actually r	
•	
*18. Approximat	tely what % of the supported activity costs were covered by the
Enterprise Irelan	
*	
*19. How many	jobs were created in the supported activity?
Full-time	
Patkime	

Enterprise Support Questionnaire
*20. If the most recent support had been refused, would your company have carried out the supported activity: (please select the most applicable)
O ruty
Over a longer period of time
O On a smaller scale
On a smaller scale and over a longer period of time
Abandoned the supported activity

1. By appro	ximately how	v many mont	ths would the	e activity have	e been delayed?

		nnaire			
*22. Why would t respond to all)	he activity hav	ve been aban	doned, delayed	or scaled d	own (Please
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
Lack of finance	0	8	0	0	0
Uncertainty of technical feasibility	0	-	0	0	0
Uncertainty of commercial feasibility	0	0	0	0	0
Too much fisk associated with activity	0	0	0	0	0
Lack of technical skills	0	0	<u> </u>	<u> </u>	0
Lack of management/marketing skills	0	0	0	0	0
Loss of confidence in the activity	0	0	0	0	0
Other (please specify)					

## Enterprise Support Questionnaire

 $^{*}$  23. If support had been refused, would you have had the financial resources to carry out the activity (please select the most applicable)

Over a longer period of time

On a smaller scale

Over a longer period of time and smaller scale

O Would not have had the financial resources to engage on the activity at all

Enterprise Support Questionnaire	
*24. Where could you have sourced the necessary financial resources to carry out the activity (please select all that apply)	8
Redirected funds from other company activities	
Invested personal funds	
Loan/Investment from friends or family	
Dank loan Agail Investor	
Venture Capital Investor	
Other (please specify)	
a com Dense shorth	
1	

Enterprise Supp	ort Questio	nnaire			
*25. To what exte	ent do you agre	e with the f		ents	
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
Financial support has helped my company grow	0	0	0	0	0
Finding suitable financial supports for my company's activities is difficult	0	0	0	0	0
Raising the necessary finance to match support offered by state agencies is difficult	0	0	0	0	0
The application process for financial support is too complex	0	0	0	0	0
The application process for financial support is too intrusive	0	0	0	0	0
The support is too restrictive as to what activities it can be spent on	0	0	0	0	0
Receiving support makes it easier to take private finance	0	0	0	0	0
My company has had difficulty raising finance in the past	0	0	0	0	0
Government funding means my company needs less private investment	0	0	0	0	0
Support was necessary for my company to develop	0	0	0	0	0
I plan to apply for state assistance in the future	0	0	0	0	0
					Page 14

Enterprise Support Questionnaire
*26. Have you ever used any non-financial, soft supports (such as training or mentoring) from any of the following agencies (Please select all that apply)?
Enterprise Ireland
City and County Enterprise Boards
Dusiness and Innovation Centre
New Frontiers/Enterprise Platform
Intertrade Ireland
Have never neceived any sof-supports
Other (please specify)

Enterprise Support Questionnaire
*27. What types of soft support did you receive? Please select all that apply
Dusiness plan and development advice
Mentoring
Training
Networking eventalopportunities
Exhibition opportunities
Access to market research materials
No soft supports were neel/ved
Other (please specify)

Enterprise Support G	uestionnaire	
*28. Since 2011 have y following agencies?		ng interactions with any of the
Applied for financial	Enterprise Ireland	City and County Enterprise Boards
support		
Was approved for financial support		
Drew down on approved financial support		
None of the above		

Enterprise Sup	port Questionnaire
	nollown
	cify what category of funding/grant was approved (EG Employment t-up package, capital grant, feasibility study grant, etc)
	*
*31. Why did the	company not draw down the support?
	×.
	*
*32. Approximat	tely what % of the proposed activity costs would the Enterprise
	ing have covered?
*	
*33. How many	jobs were originally planned to be created in the supported activity?
Full-time	
Patitime	
*34. How many	of these jobs were actually created?
Full-time	
Patkime	
	Page 18

Enterprise Support Questionnaire
$^{*}$ 35. Was the activity that support would have been used for, carried out: (please select the most applicable)
Oray
Over a longer period of time
O on a smaller scale
O On a smaller scale and over a longer period of time
Abandoned

Enterprise Supp	port Questionnaire
*** *	
* 36. By approxim	nately how many months was the activity delayed?

Enterprise Supp	ort Questio	nnaire			
*37. Why was the	e activity aban	doned, delay	ed or scaled do	wn (Please re	espond to all)
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
Lack of finance	0	0	0	0	0
Uncertainty of technical feasibility	0	0	0	0	0
Uncertainty of commercial feasibility	0	0	0	0	0
Too much fisk associated with activity	0	0	0	0	0
Lack of technical skills	8	0	0	0	8
Lack of management/marketing skills	0	0	0	0	0
Loss of confidence in the activity	0	0	0	0	0
Other (please specify)					
					Page 21

## Enterprise Support Questionnaire

 ${}^{*}$  38. Without the support, did you have had the financial resources to carry out the activity (please select the most applicable)

Over a longer period of time

On a smaller scale

Over a longer period of time and smaller scale

O Would not have had the financial resources to engage on the activity at all

Enterprise Support Questionnaire
•
*39. Where did you/where would you have sourced the financial resources to do this
(please select all that apply)
Redirected funds from other company activities
Invested personal funds
Loan/Investment from friends or family
Dank loan
Angel Investor
Venture Capital Investor
Other (please specify)

* 40. To what exte	ent do you agre	e with the fo	llowing staten	ients	
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
Financial support would have helped my company grow	0	0	Ó	0	0
Finding suitable financial supports for my company's activities is difficult	0	0	0	0	0
Raising the necessary Inance to match support offered by state agencies is difficult	0	0	0	0	0
The application process for financial support is too complex	0	0	0	0	0
The application process for financial support is too intrusive	0	0	0	0	0
The support is too estrictive as to what activities it can be spent on	0	0	0	0	0
Receiving support would have made it easier to size private finance	0	0	0	0	0
Wy company has had difficulty raising finance in the past	0	0	0	0	0
Government funding would mean my company teeds less private investment	0	0	0	0	0
Support was necessary for my company to develop	0	0	0	0	0
plan to apply for state ssaistance in the future	0	0	0	0	0

Enterprise Support Questionnaire
*41. Have you ever used any non-financial, soft supports (such as training or
mentoring) from any of the following agencies (Please select all that apply)?
Enterprise Ireland
City and County Enterprise Boards
Dusiness and Innovation Centre
New Frontiera/Enterprise Platform
Intertrade Ireland
Never received acit supports
Other (please specify)

Enterprise Support Questionnaire
*42. What types of soft support did you receive? Please select all that apply
Dusineas plan and development advice
Mentaring Training
Networking eventslopportunities
Exhibition opportunities
Access to market research materials
Cither (please specify)
1

*43. Since 2011 have you had any of the following interactions with any of the following agencies?    Interprise Inland     Applied for financial   support   Uver approved for financial   Stream of the above   None of the above	interprise Support Qu	estionnaire		
Following agencies?         Enterprise Instand         City and County Enterprise Boards           Applied for financial support   <				
Applied for financial  aupport View approved for financial support Drew down on approved financial support				
Vike approved for financial			_	
Drew down on approved financial support	Was approved for financial			
None of the above	Drew down on approved			

Enterprise Sup	port Questionnaire
	e company's application refused?
	of funding was being sought? (a. to money needed to be repaid to Enterprise Ireland/CED)
O Partially repayable gr	
Wholly repayable gra	ntiloan
C Equity investment	
Other (please specify)	
*	
	cify what category of funding/grant was being sought (EG .t, HPSU/Start-up package, capital grant, feasibility study grant, etc)
	=l
*47. What value	of funding was being sought? (e.g. size of grant)
•	
	obs were you planning to create in the activity for which you were
seeking support?	
Pattime	
*49. How many	of these jobs were actually created following refusal of support?
Full-time	
Patkine	

Enterprise Support Questionnaire
$^{st}$ 50. Was the activity that support would have been used for, carried out: (please select the most applicable)
() ruly
Over a longer period of time
O Cn a smaller scale
On a smaller scale and over a longer period of time
Abandoned

Enterprise Support Questionnaire							
•							
*51. By approximately how many months was the activity delayed?							
MOTETA							

*52. Why was the activity abandoned, delayed or scaled down (Please respond to all text of finance	interprise Supp	ort Questio	nnaire			
Strongly agrees         Agrees         Native regrees nor disagrees         Diagrees         Strongly Diagree           Lack of finance         O </th <th>incibilise contro</th> <th>on coquestion</th> <th></th> <th></th> <th></th> <th></th>	incibilise contro	on coquestion				
Strongly agrees         Agrees         Native regrees nor disagrees         Diagrees         Strongly Diagree           Lack of finance         O </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
Lack of fixance O O O O O Uncertainty of technical O O O O O Staability Uncertainty of commercial O O O O O Staability Uncertainty of commercial O O O O O Staability Uncertainty of commercial O O O O O Stability Lack of technical skills O O O O O Lack of technical skills O O O O O O Lack of technical skills O O O O O O Lack of technical skills O O O O O O Lack of technical skills O O O O O O O Lack of technical skills O O O O O O O O Lack of technical skills O O O O O O O O O O Lack of technical skills O O O O O O O O O O O O O O O O O O	*52. Why was the			ed or scaled do		
feasibility     Convertised     Convertised       Uncertainty of commercial     Convertised     Convertised       Too much fisk associated     Convertised     Convertised       Too much fisk associated     Convertised     Convertised       Lack of scholar skills     Convertised     Convertised       Lack of confidence in the convertised     Convertised     Convertised       Lass of confidence in the convertised     Convertised     Convertised				disagree		
feasibility     O     O     O       Tio much fisk associated with activity     O     O     O       Lack of suchrisel skills     O     O     O       Lack of management the skills skills     O     O     O       Lass of confidence in the activity     O     O     O	Uncertainty of technical	ő	8		8	ő
with activity Lack of sectrolar initial O O O O O O O O O O O O O O O O O O O		-		•		
management that fixed in the OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO	with activity	-		· ·	-	
management that fixed in the OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO		<u> </u>	0	<u> </u>	<u> </u>	<u> </u>
stivity	management/marketing	0	0	0	0	0
CPter (plaasa specify)		0	0	0	0	0
	Other (please specify)					

Enterprise Support Questionnaire
$\pm$ 53. Without the support, did you have had the financial resources to carry out the activity (please select the most applicable)
O ruty
O Over a longer period of time
On a smaller scale Over a longer period of time and smaller scale
Would not have had the financial resources to engage on the activity at all
Ŭ,

Enterprise Support Questionnaire						
$^{*}$ 54. Where did you/where would you have sourced the financial resources to do this						
(please select all that						
apply)						
Redirected funds from other company activities						
Invested personal funds						
Loan/Investment from friends or family						
Dank loan						
Angel Investor						
Venture Capital Investor						
Other (please specify)						

interprise Supp	ort Questio	nnaire			
*55. To what exte			Netter agree for		
	Strongly agree	Agree	disagree	Disagree	Strongly Disagree
Financial support would have helped my company grow	0	0	0	0	0
Finding suitable financial supports for my company's activities is difficult	0	0	0	0	0
Raising the necessary finance to match support offered by state agencies is difficult	0	0	0	0	0
The application process for financial support is too complex	0	0	0	0	0
The application process for financial support is too intrusive	0	0	0	0	0
The support is too restrictive as to what activities it can be spent on	0	0	0	0	0
Receiving support would have made it easier to raise private finance	0	0	0	0	0
My company has had difficulty raising finance in the past	0	0	0	0	0
Government funding would mean my company needs less private investment	0	0	0	0	0
Support was necessary for my company to develop	0	0	0	0	0
I plan to apply for state assistance in the future	0	0	0	0	0

Enterprise Support Questionnaire
*56. Have you ever used any non-financial, soft supports (such as training or mentoring) from any of the following agencies (Please select all that apply)?
Enterprise Ireland
City and County Enterprise Boards
Business and innovation Centre New Frontiers/Enterprise Platform
Intertrade ineland
Never received soft supports
Cther (please specify)

Enterprise Support Questionnaire						
*57. What types of soft support did you receive business plan and development advice business plan and development advice business bubbles opportunities choices to market research materials chore (places specify)	e? Please select all that apply					

Enterprise Support Questionnaire								
*58. Since 2011 have you had any of the following interactions with any of the following agencies?								
Applied for financial	Enterprise Ireland	City and County Enterprise Boards						
support Was approved for financial support								
Drew down on approved financial support								
None of the above								

Enterprise Support Questionnaire						
*59. Have you ever used any non-financial, soft supports (such as training or mentoring) from any of the following agencies (Please select all that apply)?						
Enterprise instand						
City and County Enterprise Boards						
Business and innovation Centre						
New Frontiera/Enterprise Platform						
Intertrade Ireland						
Have never received acit supports						
Other (please specify)						
1						

Enterprise Support Questionnaire
*60. What types of soft support did you receive? Please select all that apply Dualness plan and development advice
Training
Networking eventslopportunities Exhibition opportunities
Access to market research materials           Other (please specify)

Enterprise Supp	ort Questio	nnaire			
*61. In relation to					
agencies up to 201			Neither agree nor	_	
Unaware of any suitable	Strongly Agree	Agree ()	disagree	Disagree	Strongly Disagree
financial supports for my company's activities	0	0	0	0	0
Was not in a sector or not engaged in activities which are eligible for financial support	0	0	0	0	0
Had sufficient access to finance from private/internal sources to not require financial support	0	0	0	0	0
Would not be able to mise the necessary finance to match support offered by state agencies	0	0	0	0	0
The application process for financial support was too complex	0	0	0	0	0
The application process for financial support was too intrusive	0	0	0	0	0
Activities that state support could be used for is too limited	0	0	0	0	0
Did not meet the conditions required by the state agencies to apply for support	0	0	0	0	0
Plan to apply for state assistance in the future	0	0	0	0	0
Company would not benefit from receiving financial support	0	0	0	0	0
					Page 40

Enterprise Support Questionnaire			
*62. Since 2011 have you had any of the following interactions with any of the following agencies?			
Applied for financial	Enterprise Ireland	City and County Enterprise Boards	
support			
Was approved for financial support			
Drew down on approved financial support			
None of the above			

Enterprise Support Questionnaire	
*63. Have you, at any stage, received funding from any Government agency other than Enterprise Ireland or the CEBs	
○ Yes ○ So	

Enterprise Support Questionnaire	
****	
*64. Please specify the name of the agency/agencies	
*65. Please specify the year(s) funding was given	
_	

## Appendix B - Supported Enterprise Owner/Manager Interview Guide

Note: The introduction and question 5 were adapted based on responses provided in the questionnaire. All of the interviewees responses to the questionnaire were forwarded to the interviewee in advance and a printed copy was used by the interviewer during the interviews to follow up on responses.

The relevant research objective has been noted beside each question, according to the objectives which were outlined in Section 5.2 and repeated as follows:

- 1. What are the reasons why enterprises seek financial support and what is the rationale for government agencies providing financial support?
- 2. How do support agencies select enterprises for financial support and under what conditions is support allocated to enterprises?
- 3. To what extent is financial support a catalyst for the development of recipient enterprises, relative to unsupported enterprises?

"The following questions refer to the Enterprise Ireland/CEB funding applied for in XXXX, seeking €XXX,XXX to support a XXXXX project and XX jobs."

Question	Research Objective
1. What stage of development was the company at when you	1
applied for the funding and what was its purpose?	
2. What were your motives in applying for support?	1
3. What feedback did you get about your application?	2
4. What were your opinions of the decision by the agency to reject your application (Do you think it was a fair decision and did they raise valid concerns)?	2
5. In the questionnaire you agreed that the project was/would have been carried out fully/over a longer period of time/on a smaller scale/abandoned after support was refused. Why was this the case?	3
6. What do you believe would have been the main benefits of support for achieving the project goals and outputs?	3
7. Do you believe that receiving support would have had an impact on the company as a whole, in terms of areas such as planning, strategy, finance and future direction of the company?	3
8. What was the influence of the soft supports that you received (eg mentor, training, advice, marketing assistance)?	g 3
9. Did going through the application process and support process encourage you to look at your project and company in a different way	3

## Appendix C – Rejected Enterprise Owner/Manager Interview Guide

The relevant research objective has been noted beside each question, according to the objectives which were outlined in Section 5.2 and repeated as follows:

- 1. What are the reasons why enterprises seek financial support and what is the rationale for government agencies providing financial support?
- 2. How do support agencies select enterprises for financial support and under what conditions is support allocated to enterprises?
- 3. To what extent is financial support a catalyst for the development of recipient enterprises, relative to unsupported enterprises?

"The following questions refer to the Enterprise Ireland funding applied for in XXXX"

Questions	Research Objectives
1. What stage of development was the company at when you applied	1
for the funding and what was its purpose?	
2. What were your motives in applying for support?	1
3. What feedback did you get about your application?	2
4. What were your opinions of the decision by the agency to reject your application (Do you think it was a fair decision and did they raise valid concerns)?	2
5. In the questionnaire you agreed that the project would have carried out the supported project/activity over a longer period of time if support had not been available. Why would this have been the case?	3
6. What do you believe would have been the main benefits of support for achieving the project goals and outputs?	3
7. Do you believe that receiving support would have had an impact on the company as a whole, in terms of areas such as planning, strategy, finance and future direction of the company?	3
8. What was the influence of the soft supports that you received (eg mentor, training, advice, marketing assistance)?	3
9. Did going through the application process and support process encourage you to look at your project and company in a different way?	3

## Appendix D – Non-applicant Enterprise Owner/Manager Interview Guide

The relevant research objective has been noted beside each question, according to the objectives which were outlined in Section 5.2 and repeated as follows:

- 1. What are the reasons why enterprises seek financial support and what is the rationale for government agencies providing financial support?
- 2. How do support agencies select enterprises for financial support and under what conditions is support allocated to enterprises?
- 3. To what extent is financial support a catalyst for the development of recipient enterprises, relative to unsupported enterprises?

Que	estions	Research Objectives
1.	How has your company developed since 2007?	1
2.	Have you engaged in any major expansions or growth projects?	1
3.	Have you had difficulty in financing these projects?	1
4. eith	Up to 2011 why did you never apply for financial support from er CEBs or Enterprise Ireland?	1
5. 201	Did you have any contact with either of these two agencies up to 1?	1
6. type	Do you believe there is need for further financial supports for your e of company?	2
7. sup	What do you believe would have been the main benefits of financial port from these agencies had it been available to you?	3
8. mer	Have you ever received any soft supports from these agencies (i.e. a ntor, training, advice, marketing assistance) and if so what was the uence of the soft supports that you received?	3
9.	What are your overall views of government financial support ilable for enterprises in Ireland?	1, 2 and 3

## **Appendix E – Enterprise Ireland/CEB Interview Guide**

The relevant research objective has been noted beside each question, according to the objectives which were outlined in Section 5.2 and repeated as follows:

- 1. What are the reasons why enterprises seek financial support and what is the rationale for government agencies providing financial support?
- 2. How do support agencies select enterprises for financial support and under what conditions is support allocated to enterprises?
- 3. To what extent is financial support a catalyst for the development of recipient enterprises, relative to unsupported enterprises?

Note: The questionnaire was adapted for EI and CEB interviewees as appropriate

Questions	Research Objective
1. About EI/CEB Financial Support	
A. In your opinion, what is the main purpose of EI/CEB providing financial supports to enterprises?	1
B. What are the benefits to the enterprise and to the entrepreneur of providing financial support?	3
I. What advantages do EI/CEB grants have over other sources of finance?	3
C. In your opinion what is the main purpose of offering soft supports?	1
2. Applicants and Agency Contact	
A. In your opinion, what are the reasons why enterprises seek financial support from EI/the CEBs?	1
B. What attributes do you look for in:	1
I. Applicant enterprises?	1
II. Applicants/promoters themselves?	1
C. What are the typical attributes of an unsuccessful applicant (excluding companies which are likely to result in displacement if supported)?	1
D. How do applicants enterprises typically find out about EI/CEB supports?	1
E. Do you typically get many applicants redirected from other agencies (for example the CEBs/EI)?	1
F. Do you target/approach entrepreneurs to support them and if so how do you do this?	1
G. Do you prioritise specific sectors for support	1
H. Do you provide information about other agencies (for example CEBs/EI) or redirect enterprises to other agencies if EI/CEB support is deemed unsuitable for the enterprise?	1

3. Application process	
A. Do you have a formal process in place for evaluating applications	2
for financial support?	
I. What stages are involved in this?	2
II. What processes are involved in this?	2
III. What percentage of applicants are typically rejected for	2
support at each stage?	•
B. Are there other tacit/intuitive measures, outside of the formal	2
<ul><li>process, that are used to evaluate applications?</li><li>C. What types of information do applicant enterprises need to provide</li></ul>	2
in the application process?	2
D. How do you validate/confirm this information is accurate?	2
<ul><li>E. Do you measure for deadweight? (Do you assess if the enterprise</li></ul>	2
could achieve the same outcome without support and if so how do you	-
assess this?)	
F. Do you make contact with any other stakeholders in the enterprise	2
other than the promoter (for example the enterprise's bank, source of	
finance, clients, etc)	
G. What measures, if any, do you have to guide applicant enterprises	2
through the application process?	2
H. Do you advise applicants on the type and value of support that they about apply for?	2
should apply for?	
4. Support	2
A. Are there any services/types of funding offered in your region that are not offered by other EI/CEB Regions?	Z
B. How is the amount of support decided upon?	2
C. How is the type of financial support decided upon?	2
<ul><li>D. Are any soft supports automatically provided with financial</li></ul>	2
support?	2
E. What conditions must the enterprise meet before drawing down on	2
approved support?	-
F. Is there a time limit/expiry limit as to when approved support can	2
be drawn down by the enterprise (eg must support be drawn down in the	
same calendar year it is approved in?)	
G. What percentage of applicants draw down on approved support?	2
5. Aftercare and Monitoring	
A. What services, if any, do you provide to enterprises after they have	3
drawn down on their support?	
B. Do you have to monitor the progress of enterprises which have drawn	3
down support?	2
I. What metrics/features do you examine?	3
II. How long does this monitoring continue for?	3
C. Do you guide former clients towards future rounds of support or	3
support from another agency?	
6. Overall views of EI/CEB model	2
A. What do you believe are the main impacts of financial support on EI/CEB Clients?	3

B. What do you believe are the main strengths of the EI/CEB model?	3
C. What are the weaknesses?	3
D. Do you believe the EI model is well suited to the local business	3
environment in your region?	