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Department of Public Expenditure and Reform

Spending Review Series

An Assessment of the Rationale, Efficiency and Targeting of Supports in Enterprise Ireland

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This paper has been prepared by IGEES staff in the Department of Public Expenditure & Reform in the context of the Spending Review 2017. The views presented in this paper do not represent the official views of the Minister for Public Expenditure and Reform or the Department of Jobs, Enterprise and Innovation.

Methodology

This paper assesses the rationale for enterprise policy in Ireland, the targeting of supports in Enterprise Ireland (EI) and the efficiency of spend in EI in recent years. Important policy issues such as Brexit and Climate Change are also considered in the context of enterprise policy and the future work of DJEI and EI.

The main analytical methodologies employed in the paper include a literature review to inform an assessment of the rationale for enterprise policy in Ireland and a trend analysis to analyse the efficiency and sustainability of expenditure over a period of time. The main sources of data and information used in this paper are:

- Data – Department of Public Expenditure and Reform (DPER), Department of Jobs, Enterprise and Innovation (DJEI), EI (and other DJEI agencies), Department of Finance (DoF) and the Central Statistics Office (CSO); and
- Existing research – DJEI, DoF, the Economic and Social Research Institute (ESRI), Ken Warwick, OECD and Helena Lenihan, University of Limerick (UL).

DJEI and EI have been consulted on the content of this paper, however, the views expressed in this analysis do not necessarily represent the views of either organisation.

Key Messages from Analysis

1. EI client companies make a very significant contribution in the Irish economy in terms of employment, exports, etc. However, the level and composition of expenditure may need to be refocussed given the existing level of Exchequer support and the new challenges facing the agency.

2. Enterprise policy in Ireland is in line with international best practice - it is company centric and operates within a systems approach where interventions are tailored to each company. This approach is appropriate but has a number of limitations:

    a. The level of self-selection bias is unclear. To assess this in a more robust way, an anonymised dataset of the broader cohort of non-supported internationally trading companies in the Irish economy needs to be collected. The CSO should lead on this project with the support of EI, DJEI and other relevant stakeholders.
    b. Recent evaluations of EI's supports have found them to be broadly effective. However, where packages of supports are provided, it is extremely difficult to evaluate which supports are more effective than others. While the design of EI's new Client Engagement Model may facilitate better evaluation, it will need to be supported by both the collection of robust data by EI and, as set out above, the development of anonymised data on the broader cohort of non-supported internationally trading companies in the Irish economy.

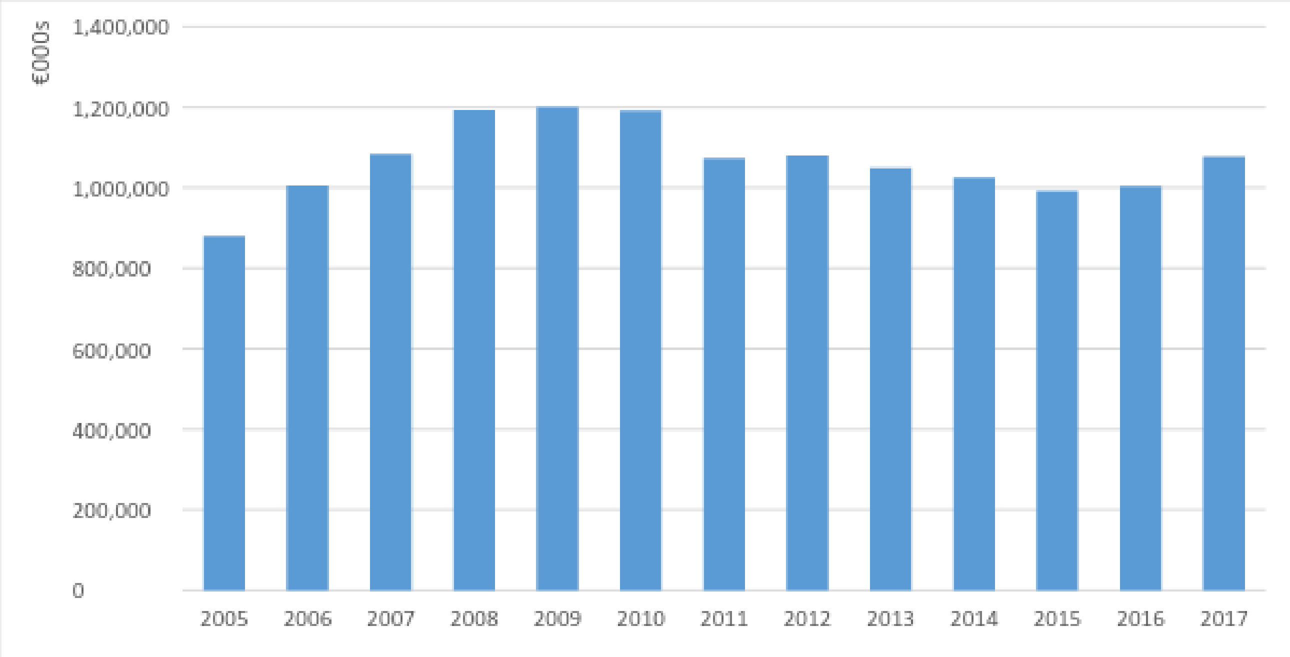
3. In terms of EI operations, processes and efficiency:
    a. EI appears to have become a more efficient agency in recent years, reducing the share of administration expenditure and staff levels while increasing the share of direct financial supports to industry. Going forward, EI may have to reallocate staff to meet emerging challenges. The creation of any new posts will have to be assessed with the Vote in the context of developments in the economy.
    b. The degree to which own resource income can be maintained or increased should be further assessed in the context of limited additional Exchequer resources. The DJEI Vote in DPER should continue to monitor this.
    c. While EI appears to have reasonably robust processes in place for forecasting the profile of grant approvals and payments over time, an assessment of approvals and payments which links payments in future years with the year of approval would have value in terms of identifying where approvals are more or less likely to result in payments. Data to undertake this assessment should be made available by EI.

4. Other Policy Considerations:
    a. Brexit is likely to have a significant impact on EI's client base and while EI has already responded to this in a number of ways, there is a risk that an increased level of Exchequer funding will be demanded. These demands will need to be considered by the DJEI Vote in DPER in the context of competing demands for resources across the system.
    b. Climate Change - EI and DJEI may have to adapt processes and procedures (e.g. DJEI's ex-ante economic appraisal model) in order to better account for the costs and benefits of climate change. This may be a particularly important in the food sector and transport sectors.

Introduction

The State spends a significant sum of money supporting enterprise agencies. In 2016, €1bn[1] was allocated to 12 key agencies/areas[2] across a number of Government Departments (over half of the €1bn was allocated to agencies under the remit of DJEI). While this was 5% lower than the 2009 peak, in Budget 2017, the allocation in this area increased by €100m to a seven year high of nearly €1.1bn.

Figure 1: Exchequer Expenditure[3] on Enterprise Supports (€000s), 2005-2017



Source: Agency Financial Accounts

Enterprise supports accounted for approximately 2% of total gross voted expenditure in 2016. This has remained relatively constant over the last decade. Five larger agencies make up the bulk of funding in this area, namely Enterprise Ireland (which includes expenditure on Local Enterprise Offices (LEOs)) (EI), IDA Ireland, Science Foundation Ireland (SFI), Teagasc and Failte Ireland. The 'other' category in the figure below includes InterTrade Ireland, Údarás Na Gaeltachta, the Western Development Commission (WDC), LEADER programme, Tourism Ireland, Bord Bia and Bord Iascaigh Mhara (BIM). The Exchequer allocation across agencies has remained relatively stable over time and in 2016 EI received 30%, the IDA and SFI received

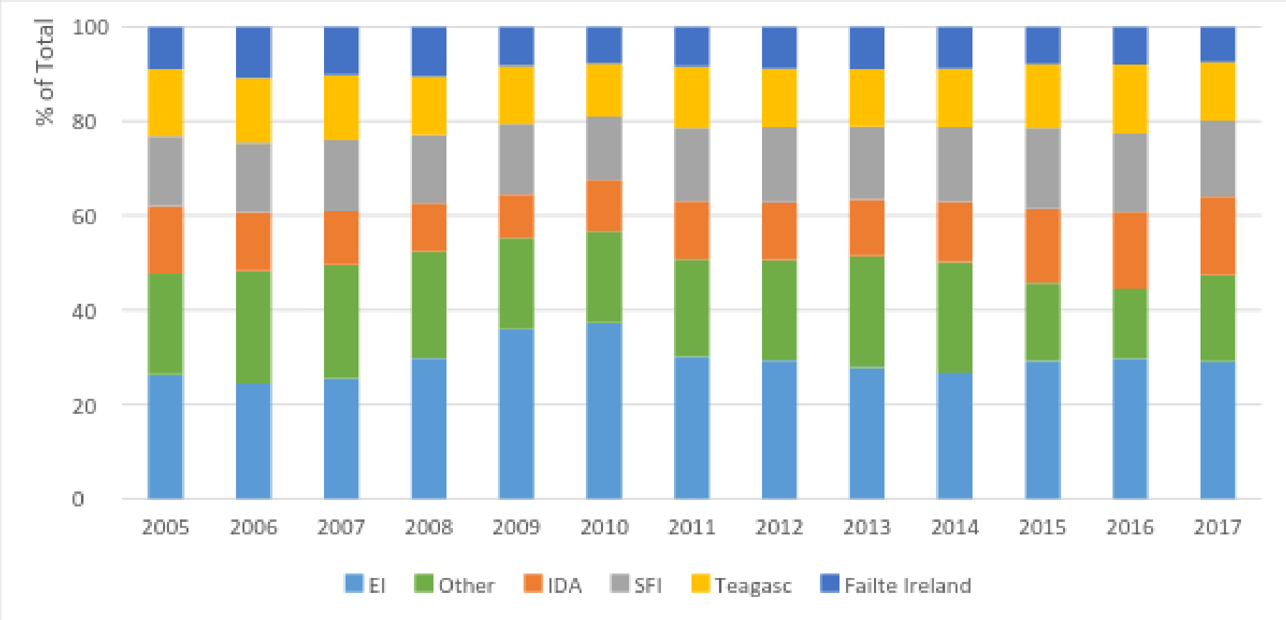
[1] Note that a number of agencies (including Enterprise Ireland) also generate own resource income (ORI) however, this section deals exclusively with Exchequer allocations.

[2] Includes Enterprise Ireland (EI), IDA Ireland (IDA), Science Foundation Ireland (SFI), InterTrade Ireland, Údarás Na Gaeltachta, Western Development Commission (WDC), LEADER programme, Failte Ireland, Tourism Ireland, Teagasc, Bord Bia and Bord Iascaigh Mhara (BIM).

[3] Does not include tax expenditures such as the R&D Tax Credit.

approximately 16% each while Teagasc and Failte Ireland's allocation amounted to 12.5% and 7.5% of total respectively.

Figure 2: Percentage Breakdown in Expenditure on Supports by Agency



Source: Agency Financial Accounts

The level of Exchequer funding for enterprise supports is significant. As such it is important that this expenditure is analysed in more detail. However, to assess the totality of spending would not reflect the differences that exist across agencies as well as the multi-year approach to the current Spending Review framework within which this paper sits.

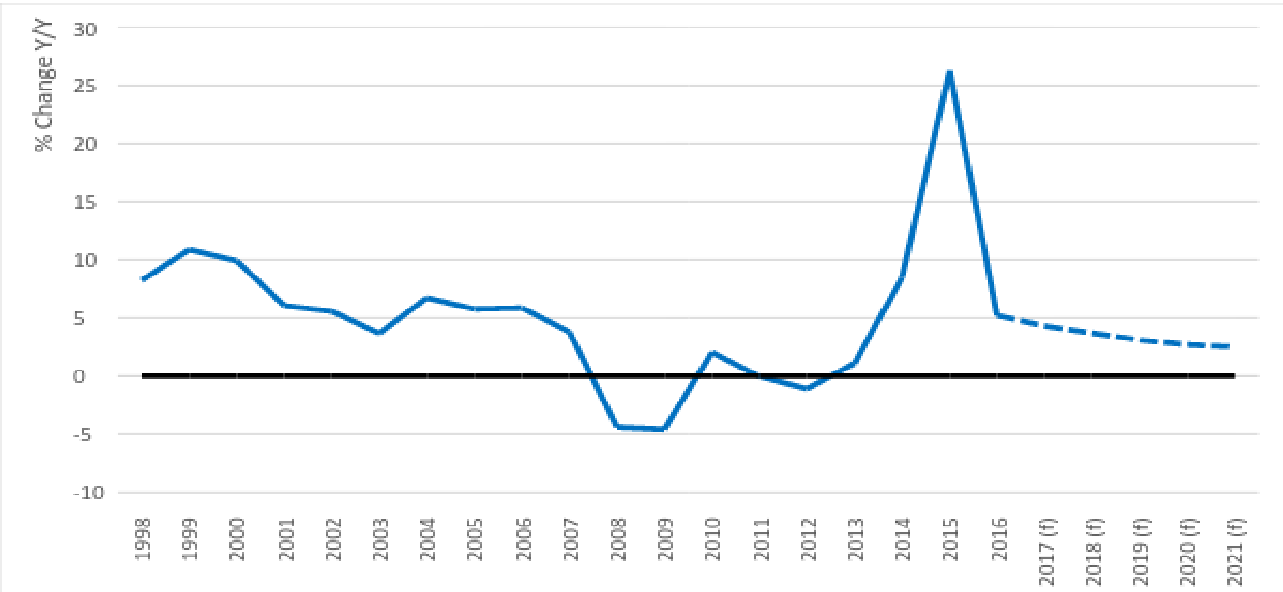
Because of this, and reflecting its importance as the largest agency in terms of overall Exchequer spend, the remainder of this paper focuses on EI. Specifically, the analysis looks at the rationale for and targeting of supports by EI. To do this, the paper draws on elements of the analytical approach used within the Value for Money Review (VFMR) Initiative including rationale, efficiency and effectiveness. The paper begins by outlining recent developments in the economy and the implications of these for EI.

Economic Context

The economic context within which EI operates has changed significantly in recent years. This can be seen through a number of key indicators. In terms of GDP, the Irish economy experienced a prolonged period of growth through the 1990s to the mid-2000s. Initially this was driven by strong export lead growth. Later, domestic factors including significant increases in private investment, private consumption and public expenditure drove growth in the economy. The recession that followed saw the State enter an EU/IMF/ECB Programme of Financial Support which Ireland exited in late 2013. In the same year the economy grew by 1%. However, since this point, growth has been very strong with the economy surpassing the pre-recession high.

As set out in the Department of Finance' Stability Programme Update (April 2017), a continuation of robust economic expansion cannot be taken for granted, with significant challenges on the horizon that could potentially derail the recovery. Many of these are beyond the control of domestic policy-makers. The United Kingdom's (UK) exit from the European Union (EU) – expected in 2019 but with the potential to adversely affect the Irish economy in advance of that – and the uncertainty associated with the policy stance in the US are amongst the most prominent factors casting a shadow over future growth prospects. Brexit, in particular, will have implications for EI given its predominantly indigenous client base. A more detailed analysis of this is set out later in this paper. However, despite these potential risks, the Department of Finance has forecast that the economy will continue to grow by 3% on average over the next 5 years[4].

Figure 3: GDP Growth (%) – Recent Trends and Forecasts, 1998-2021

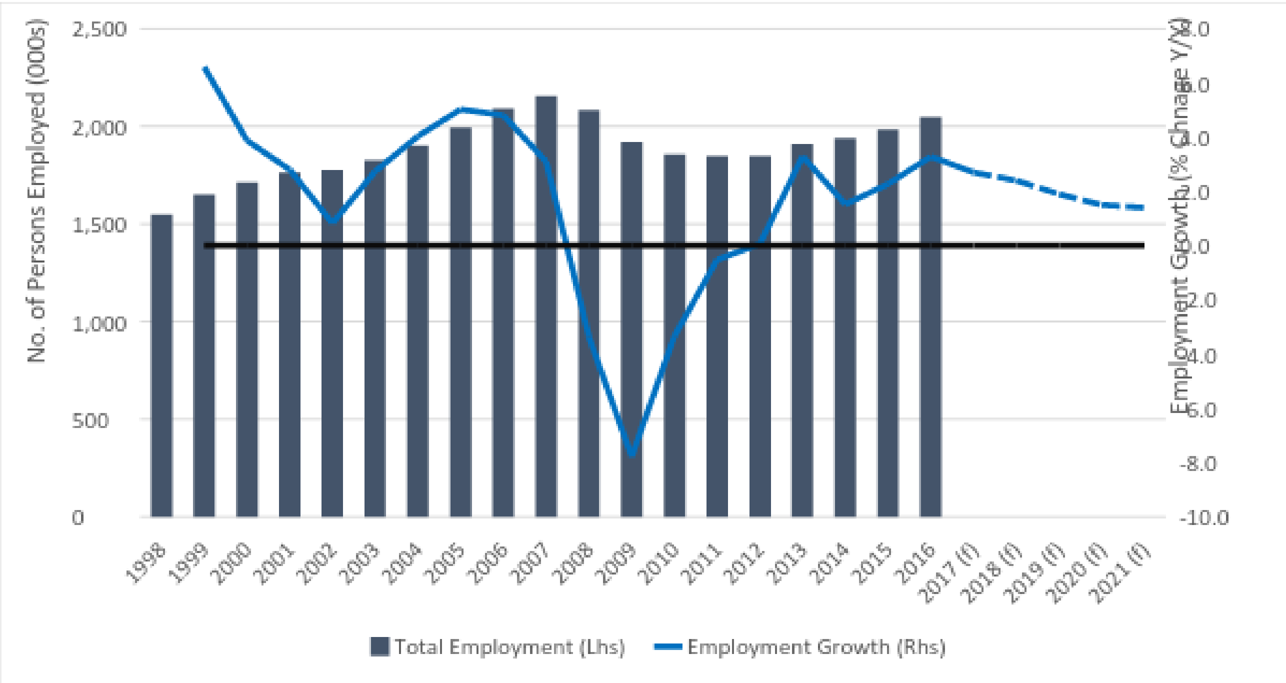


Source: CSO and DoF

[4] Dept. of Finance (2017) Stability Programme Update Economic Forecasts.

Due to measurement issues in GDP and GNP associated with the open nature and structure of the economy, employment is perhaps a more consistent indicator of activity in Ireland. Between 2000 and 2007, the economy was operating at full employment (i.e. approximately 4% unemployment). With the onset of the global financial crisis, nearly 350,000 people lost their jobs. The economic recovery has seen employment grow by nearly 200,000 or 10.8% between 2012 and 2016. Data from the CSO, reflecting April 2017, indicates that the seasonally adjusted unemployment rate is now 6.4% and the Department of Finance expects employment to continue to grow by an average of 2% annually over the next five years.

Figure 4: Employment (000s) and Employment Growth (%), 1998-2021



Source: CSO and DoF

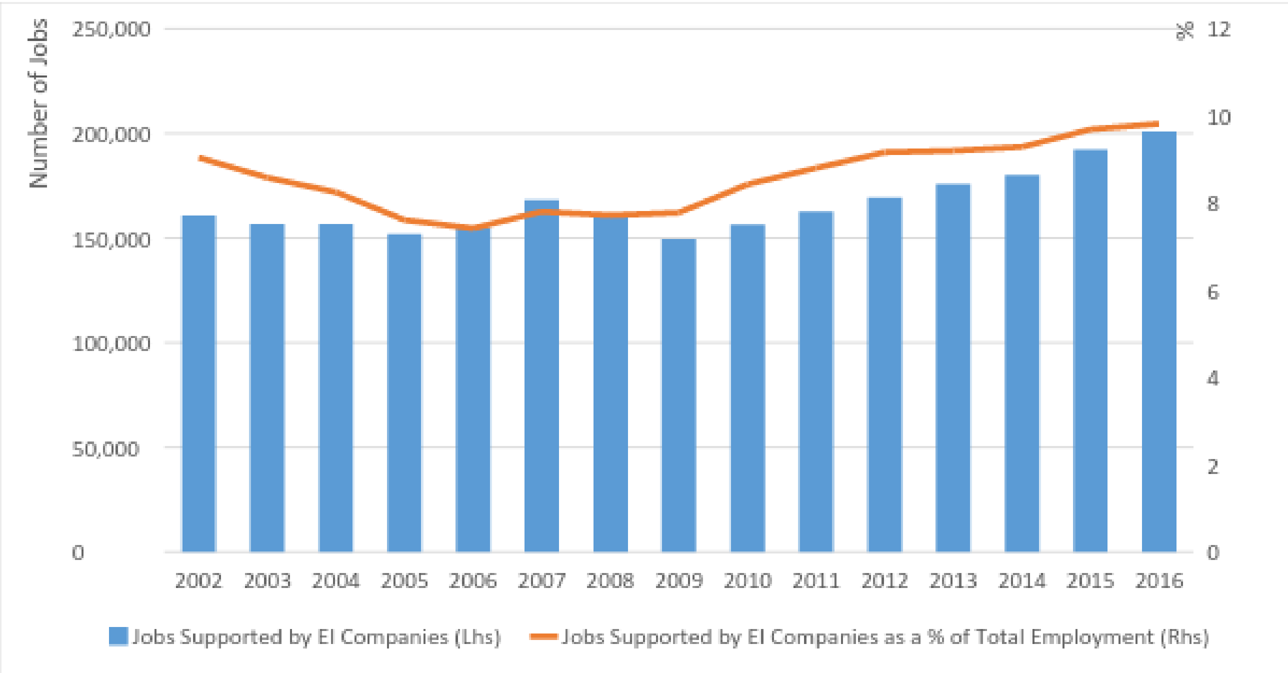
EI client companies increased employment in the period 2007 to 2012 at a time when overall employment declined by 14.2%.

On average, over the period of full employment from 2002 to 2007 EI client companies supported 8.1% of all jobs in the economy. As employment in the economy declined from 2007 to 2012, EI's proportion of total employment increased. This is because employment in EI client companies increased from 2007 to 2012 (0.7%). Over the same period employment in the economy fell by nearly 14.2%. This indicates that, notwithstanding the differences in the characteristics of EI client companies and broader cohort of non-supported internationally trading companies which could potentially impact on the comparison between the two, EI fulfilled an important role in supporting employment in the economy during a difficult period.

Beyond 2012, EI client companies have continued to add jobs in record numbers and in doing so have increased their share of overall employment in the economy to nearly 10% as of 2016 – this equates to over 200,000 direct jobs in addition to the employment that is indirectly supported by the agency through spend in the Irish economy and supply chains, etc. This significant contribution EI client companies make in supporting employment in the Irish economy must be acknowledging.

While doing so, it is also important to consider the appropriate level of support the agency should provide into the future in terms of employment in the economy. This is not to say that EI does not have a key role to play but it is timely to consider the extent of the role EI should play in supporting employment. This assessment needs to balance a range of factors. These include the reality of a growing economy moving towards full employment, the level of deadweight and additionality associated with providing enterprise supports, the balance of supports for indigenous and FDI companies, the ongoing churn in EI's enterprise base, issues around sustaining versus growing jobs and the risks associated with Brexit, which the Central Bank of Ireland estimates could cost Ireland up to 40,000 jobs in the 10 years after the UK's exit from the EU.

Figure 5: Jobs Supported by EI Companies and Share of Total Employment Supported, 2002-2016



Source: Enterprise Ireland and CSO

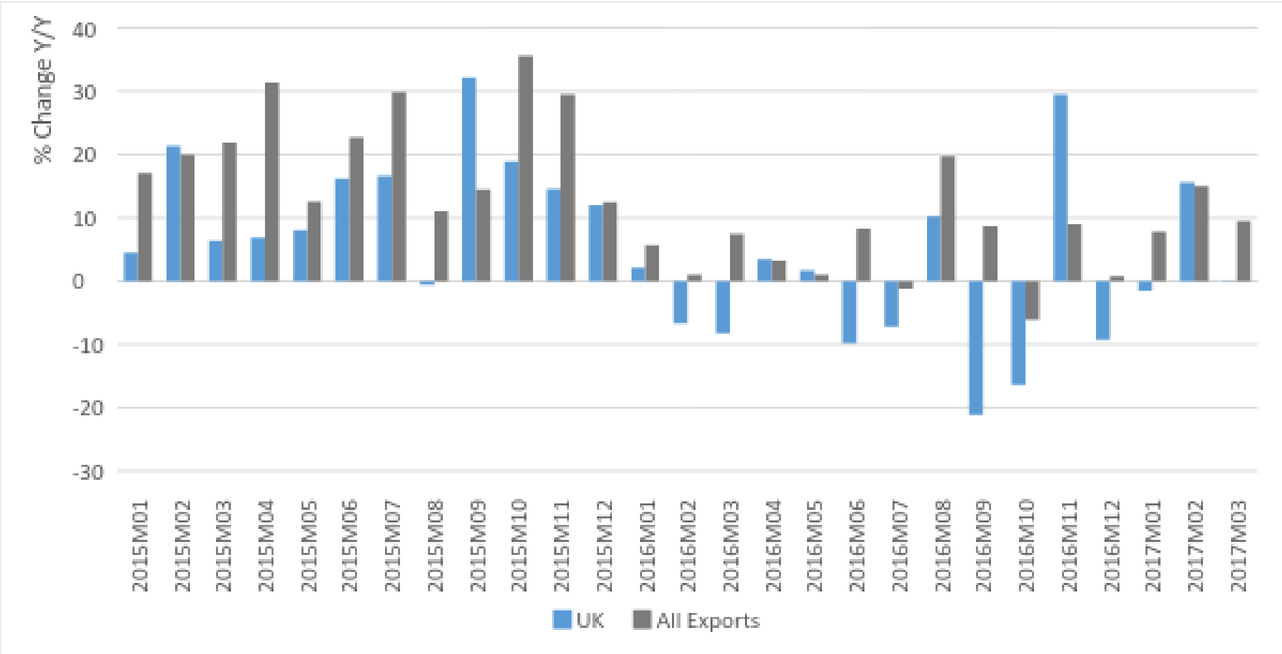
Export activity is another key economic indicator that is important to consider in the context of EI. In recent years, on an economy wide basis, the total value of exports has increased dramatically. As of the end of 2016, exports equated to nearly €320bn, a record high for the Irish economy.

Figure 6: Trends in the Value of Goods and Services Exports from Ireland (€m), 2012-2016

Source: CSO Balance of Payments Data

Achieving continued growth in exports represents a key risk for the Irish economy in the face of Brexit. Looking at more granular data on merchandise exports shows that the UK market has become more volatile in recent times. For example, the average annual rate of growth in merchandise exports from January 2016 to March 2017 was 6% for all countries. For the UK, it was -1.2%. This suggests that Irish exporters may no longer be able to rely on the UK market as a source of export growth to the same extent as has previously been the case.

Figure 7: Annual Percentage Change in Merchandise Exports, January 2015-March 2017



Source: CSO

This has important implications for EI. While the agency has supported an increase in exports from client companies in recent years – reaching a record high of €21.6bn in 2016 – the degree to which this growth can be relied upon going forward is now in question. This is evidenced by the declining rate of growth in exports from EI supported companies to the UK. Between 2014 and 2015, exports to the UK increased by 12%, however from 2015 to 2016, export growth slowed to just 2%.

At €7.55bn, the UK is by far the largest export market for EI client companies. This, married to the declining rate of growth in exports, means that EI will have to support companies to reduce their reliance on the UK market. This is a challenging task, the extent of which has been highlighted in recent ESRI[5] research on expanding and diversifying exports. In this paper, the ESRI highlights that for Irish firms:

- Exporting activity is highly concentrated in a relatively small percentage of firms;
- Exporting is rarer in services than in goods;
- Most exporters sell a small number of products to few markets;
- Food exports are a large share for Irish-owned firms but are the least diversified;
- Export volumes are dominated by top performers; and
- Exporting activity has a high risk of exit.

This suggest that EI has a challenging task to support new and existing Irish exporters. One way EI has begun to do this is through its Eurozone Market Strategy 2017 – 2020[6] which aims to increase exports to the Eurozone by 50% or €2bn per annum by 2020, promoting a shift in the global footprint of Irish exports from UK to Eurozone.

Summary of Key Points

- The economy is growing strongly, is forecast to continue to grow, and will likely result in the achievement of full employment in the coming years;
- Brexit will be a key challenge for the economy in the years ahead and will have important implications for EI and its client base; and
- In light of the above, both the level and composition of Exchequer support to EI will need to be carefully considered in the upcoming and subsequent Budgets in order to effectively support enterprises while ensuring value for money for the taxpayer.

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[5] Lawless, Martina, Iulia Siedschlag and Zuzanna Studnicka (2017) Expanding and Diversifying the Manufactured Exports of Irish-owned Enterprise and Lawless, Martina and Zuzanna Studnicka (2017) Services Exports and Exporters of Services.

[6] https://www.enterprise-ireland.com/en/Publications/Reports-Published-Strategies/Eurozone-Strategy.pdf

Rationale and Targeting of Supports

This section of the report assesses the rationale for industrial policy in Ireland and the targeting of supports to EI client companies. Rationale relates to questions concerned with identifying objectives and examining their validity. In the context of this paper, rationale is assessed from a number of perspectives; from a policy perspective in terms of how existing policy links to the literature and how strong that link is and from the perspective of the supports EI provides to companies. The links between rationale and the targeting of supports are also explored. Specifically, the analysis attempts to shed light on the systems approach to enterprise policy and the implications of this approach for the targeting and effectiveness of supports.

Rationale for Enterprise (Industrial) Policy

It is useful to begin by considering what we mean by industrial policy. There is a significant body of literature attempting to deal with this question and as such there are many definitions of what industrial policy is and what is encompassed within it. Having considered the literature, Warwick (2013)[7] argues that a broader definition may best reflect what industrial policy actually is.

> *"Industrial Policy is any type of intervention or government policy that attempts to improve the business environment or to alter the structure of economic activity toward sectors, technologies or tasks that are expected to offer better prospects for economic growth or societal welfare than would have occurred in the absence of such intervention."*

With that in mind, it is also useful to consider what the literature says about the rationale for industrial policy with a view to examining how this links with the perceived rationale in the Irish context. What is noteworthy here is that the rationale is not fixed but is rather evolving. As set out in the table following, rationale changes over time, there are significant divergences in rationale and, depending on the approach, industrial policy environments can be markedly different.

In the Irish context it could be argued that there is no fixed approach to industrial policy in terms of rationale. Examples could be identified across a number of approaches.

[7] Warwick, K. I (2013) Beyond Industrial Policy: Emerging Issues and New Trends, OECD STI Policy Papers, No. 2.

Table 1: Evolving Rationale for Industrial Policy

Approach	Description
Laissez-faire Approach	No need for an 'active' industrial policy, market automatically selects sectors and firms ensuring an efficient allocation of resources. The role of government is to ensure the best possible environment for business.
Traditional Approach	Stimulate certain sectors of the economy through production subsidies or other forms of state aid or in some cases through the promotion of national champions through nationalisation, the encouragement of mergers or preferential procurement policies.
Market Failure Approach	Public action is needed to correct market failures (externalities, market power, capital market failures) and to guarantee the provision of public goods. Most market failures reflect a mismatch between the structure of private and social benefits in a particular economic activity.
New Growth Theories	Emphasis is on the role of investment in R&D, technology, education and training, with the associated accumulation of knowledge and spillover benefits.
Systems Approach	Focus on the processes for the generation, absorption and commercial exploitation of knowledge, helps to overcome co-ordination problems which might hinder the industrial development of countries and assists in the development of new standards across industries.

Source: Warwick, K. I (2013) Beyond Industrial Policy: Emerging Issues and New Trends, OECD STI Policy Papers, No. 2

However, in terms of where policy is developing in Ireland, the systems approach appears to be to the fore. This has been highlighted in a recent report by the Department of Jobs, Enterprise and Innovation (DJEI)[8] which, among other things, sets out the rationale for State intervention. This includes addressing multiple market/systems failures such as risk, sunk costs, access to specialist infrastructure and equipment, spillovers, skills/management shortages and co-ordination and information deficits.

Reflecting the work of Warwick (2013) and Lenihan (2011)[9] DJEI argue that State support for firms has broadened considerably beyond the market failure concept to also include a wider view of the State as operating via a system of support.

[8] DJEI (2015) Evaluations of State Supports for Enterprise, Synthesis Report and Conclusions.

[9] Lenihan, H. (2011) 'Enterprise policy evaluation: Is there a 'new' way of doing it?' Evaluation and Program Planning, 34 (4), 323-332.

Implied in this 'systems' approach is that governments interact with firms in numerous ways and that an essential government role is to engage in closer dialogue with business to ensure the most efficient allocation of resources for enterprise support. DJEI's report goes on to state that within the systems approach, the success of State support is not only measured in terms of monetary benefit but also in wider economic impacts and behavioural change.

What is the systems approach and how does it operate?

The systems approach sees governments, through Departments, enterprise agencies and other public bodies, interact with firms in numerous ways. In practical terms, what this means is that EI looks at each company on a case by case basis and then tailors interventions accordingly. To a significant extent EI is focused on indigenous firms but also has responsibility for Foreign Direct Investment (FDI) in the food sector.

To more fully understand the systems approach, it is useful to map the process of resource allocation from DJEI to EI and from EI to client companies. The starting point is the allocation of resources from DJEI to EI which is through Vote 32. In addition, EI also receives Exchequer funding from other Departments[10]. It should also be noted that EI generates significant own resource income which is assessed in more detail later.

Table 2: Exchequer Allocation to Enterprise Ireland (€m), 2010-2016

	2010	2011	2012	2013	2014	2015	2016
Exchequer Allocation	444	323	317	293	277	292	286

Source: Enterprise Ireland

EI then allocates supports to companies utilising a Client Engagement Model (CEM). This new model is based on a company diagnostics approach, more detail on which is provided below. The model is a departure from the previous approach to company engagement where EI Development Advisers (DAs) engaged with client companies and reviewed their business plan and export ambition. DAs employed a developmental approach across all aspects of company needs, including for example, business development, sales and marketing capabilities, innovation and R&D activity, etc. Supports were then tailored to reflect a company's stage of development and need. Proposals for support were then drafted by the DA and a support package for a client company was (and still is) then subject to EI's internal approval process.

[10] Funding relates to specific projects and schemes that EI is requested to administer including include the Beef and Sheep Meat Investment Fund, Food Competitiveness Fund (Department of Agriculture, Food and the Marine), The National Training Fund (Department of Education and Skills) and funding for the International Energy Research Centre and LEO Online Trading Voucher Scheme (Department of Communications, Climate Action and Environment).

EI's Client Engagement Model

The new CEM is different from the DA approach in that it provides a more standardised approach where companies are divided into three service tracks:

- HPSU Start & Accelerate: Potential to achieve >10 jobs and ≥€1m sales in 3 years;
- Advance: ≥10 employees and +€50k p/a exports; and
- Accelerate: Turnover >€3m, Employment >20, Exports >€500k and Growth >10%.

Within each of these service tracks there is a defined process for engagement with companies. For example, for the 'Accelerate' service track, the following steps are undertaken:

- Preparation and positioning;
- Online questionnaire;
- Internal preparation for facilitated diagnostic;
- Facilitated diagnostic to identify priority areas;
- Meeting(s) led by functional leads;
- Meeting led by markets lead;
- Agreement on actions and support actions;
- Implementation;
- Quarterly reviews and final review.

Through this process, the CEM enables EI to match supports more closely to a client need and to bring internal teams together to focus on particular stages of development. A support package based on a company diagnostic focuses, where relevant, on six business pillars – Innovation, Finance, Operations, Sales and Marketing, People and Organisational Development. Company diagnostics and meetings between Enterprise Ireland and client companies inform the design of the support package. All company supports then require internal approval. Within this, growth plans are agreed with clear timelines for action by EI and the client.

Eligibility Rules

EI is mandated to provide supports to companies where there is a demonstrable impact, additionality and economic return. This is underpinned by legislation[11], value for money guidelines and EU State Aid rules. The objective is to ensure that State monies are invested in a way that delivers most for Ireland in terms of jobs and economic impact, while safeguarding taxpayers' interests.

[11] The 1986 Industrial Development Act, 1998 Industrial Development Act and for purposes of R&D, the 1987 Science & Technology Act.

EI does not work with locally traded service companies, microenterprises (companies employing <10 people) or companies that fall within gambling or "gaming" as defined in the Gaming & Lotteries Act 1956. There are also a number of restrictions for military and dual use goods (i.e. products which have both civilian and specific military applications) and for tobacco and related sectors.

Safeguards / Controls within the Approvals Process

Both the Client Engagement Model and the eligibility criteria are supported by a range of EI and DJEI controls.

- EI requires new significant funding programmes to be subject to an ex-ante evaluation. This evaluation is submitted to a sub-committee of the Executive for review and sign off.
- All new major funding programmes have identified evaluation timetables and all approved programmes are subject to value for money and impact analysis.
- All approved programmes have specific metrics and review periods built into their work programmes. EI ensures that performance metrics are applied to its funding programmes. These are regularly reviewed with EI's internal committees and Board to ensure that they are focused on impact. A new MIS reporting system has been tested that will facilitate more timely access to relevant management information for evaluation.
- EI evaluations maintain independence using independent consultants in conjunction with EI staff that are independent of the EI management and operation of the significant programmes being evaluated. EI also updates DJEI regularly through the liaison meeting mechanism which affords an opportunity to input into the Terms of Reference before being finalised ensuring DJEI are in consultation prior to evaluations.
- All projects that come to EI for grant approval must also go through an Economic Appraisal Model/System[12]. This is an ex-ante cost benefit analysis in which the projected net benefits of the project are compared to the current costs of the grant. The benefits and costs are adjusted for a number of parameters underpinned by economic evidence. This model serves an advisory role and is one aspect of an overall system of appraisal.
- Grants from EI can only be drawn down after the project has been implemented by the company and grant inspectors ensure that it was implemented as required.
- In deciding to support any given project, there is a requirement for investment from promoters and/or external investors which serves to reduce the risk faced by the State and represents an important commercial validation of each project.

[12] The model, which is currently being updated, is informed by Forfás commissioned research – UCD (2001) The Economic Appraisal System for Projects Seeking Support from the Industrial Development Agencies.

Limitations to the Rationale and Targeting of Enterprise Supports

While it is acknowledged that the current rationale for industrial policy, i.e. the systems approach, is an internationally accepted basis for supporting enterprises and is supported by the research / academic literature in this area, there are a number of limitations to the approach. This section briefly sets out two of the main limitations with a view to providing a basis for further, more detailed analysis, in future.

Self-Selection of Companies

Companies apply to EI for support and in this way are self-selected. This may be an issue if the companies that apply for support have certain characteristics that would have made them likely to succeed even without EI's support. However, this is not to say that every company that applies is supported as this is not the case. As per the current enterprise policy environment and the legislation underpinning the operation of the agency, EI is mandated to provide supports to enterprises where there is a demonstrable impact, additionality and economic return. Within this, as highlighted above, EI is subject to EU State Aid guidelines in terms of the types of companies it can support, as well as ensuring that for any company that is supported an economic return is anticipated. In addition, EI targets companies in a number of other ways:

- EI provides a number of targeted supports in sectors such as food and beverages, industry, life sciences, ICT and international services.
- Having taken responsibility for the Local Enterprise Offices (LEOs), EI now also plays a role in supporting microenterprise and entrepreneurship from an early stage. This is done through an agreed progression pathway to and from each agency. In operating the LEOs, EI has expanded its reach and now has nine regional offices (excluding Dublin).
- EI has run a number of national campaigns in order to further extend its reach. These include EI's Global Ambition and Brexit Scorecard campaigns in addition to a number of seminars and events which are open to all companies, e.g. EI's Brexit Roadshow.
- EI's Potential Exporter Division engages with companies with the potential to export. This division in EI delivers capability development programmes which are developed on a one-to-one basis.
- The Competitive Start Fund is also providing targeted supports which are aimed at different cohorts, including female entrepreneurs, graduate entrepreneurs, international entrepreneurship, Fintech, etc.

This paper acknowledges the above range of initiatives and strategies which have aimed at broadening EI's coverage among companies and thereby minimise the risk of self-selection bias. However, while these may well have been effective in minimising the risk of self-selection bias in the companies that apply for funding, there remains a lack of detailed data to robustly assess this. This lack of data means that it is not possible to know whether there are any significant differences in the characteristics of companies that are and are not supported by EI. While the data is available to assess EI supported companies, it is not available to assess non-supported internationally trading companies, i.e. the broader cohort of companies in the economy. In order to undertake a fuller assessment of the self-selection issue, random samples of companies that have been supported by EI and that have never been supported by an enterprise agency would need to be drawn and assessed in terms of any significant differences in the characteristics of both cohorts. Such an exercise could be led by the CSO with the support of EI and DJEI. At a minimum, this would require the assignment of a unique identifier for those companies assisted by EI or any other enterprise agency in addition to the development of an anonymized datasets of non-supported internationally trading companies. Once this has been done, the provision of anonymized datasets for both supported and non-supported companies would be required. Such a step would be a leap forward in terms of the ability of analysts to not only assess self-selection but also to undertaken more consistent evaluations.

Measuring Effectiveness

Between 2012 and 2014, the Strategic Policy Division in DJEI undertook a comprehensive programme of evaluations[13] which covered three thematic areas:

- Supports for Start Up and Entrepreneurship (2012);
- Supports for Research, Development and Innovation (2012-2013); and
- Supports for Business Development (2013-2014).

One of the key aims of this programme of evaluations was to assess the effectiveness of supports provided by the enterprise agencies including EI. The evaluations found that:

- The agency programmes were appropriate and aligned with enterprise policy, effective in meeting stated objectives and efficient;
- Where control group analysis was possible, the evaluations found evidence that supported firms were more resilient over the period of the recession, achieved higher growth levels in employment and exports, realised greater productivity improvements and experienced higher survival rates;
- Supported companies also reported increased skills levels and management capabilities, better understanding of overseas markets, greater job satisfaction amongst employees, increased confidence and strategic ambition and improved sustainability;

[13] For a summary please see, DJEI (2016) Evaluations of State Supports for Enterprise: Synthesis Report and Conclusions, July 2015, pg.37.

- Agency supports have a strong incentivising effect for companies, bringing forward decision-making and, in many cases, increasing the scale of investment by companies than would otherwise have happened;
- In all cases where a CBA was undertaken a positive return on State investment was realised, even when adjusted for highly conservative assumptions;
- The evaluations served to strengthen the development of individual policy interventions and provided robust evidence to demonstrate that value for money was being achieved in supporting enterprise development; and
- The approach taken also served to highlight the complexity involved in isolating the impact of an individual programme from within the overall system.

For EI in particular, the evaluations indicated that there is no single system or combination of supports delivering the greatest impact rather that it is appropriate that EI continues to deal with companies on a case-by-case basis and provide a range of supports tailored to companies at different stages of scale and development. The evaluations also stressed that each company has different needs and effective supports for one company may not be effective for another. This reflects the fact that effectiveness is defined in different ways depending on the intervention, e.g. ror innovation interventions, effectiveness may be evidenced through new products, services or processes, knowledge transfer while for management development, effectiveness may be evidenced through other effects such as increased capabilities, scaling or diversifying to new markets. Companies develop in different ways and thus the supports needed to foster that development will vary by company.

Key Challenge for the Systems Approach

This is perhaps where the key challenge for the systems approach lies. Given that different types of companies respond to supports in different ways and that companies are often provided with a tailored package of supports, it is extremely difficult to measure the effectiveness of individual supports within a package or to identify which supports are more effective than others.

This limitation is highlighted by DJEI in its synthesis report. While DJEI present the finding in the context of the importance of combinations of supports, this paper argues that it is also important in terms of its implications for the targeting of supports. This is due to the fact that while the systems approach does allow for the consideration of the complex needs of different types of companies, it also makes it extremely difficult to determine what types of supports are more effective than others. Therefore, it is important to continually improve methods for evaluating the complex ways in which the systems approach interacts to deliver impact at firm level.

EI's Client Engagement Model and the Measurement of Effectiveness

EI has moved to a new Client Engagement Model (CEM) which it sees as a way of overcoming the above issue. This is due to the use of a company diagnostic approach as well as a more standardised approach in terms of the three service stream. However, two key challenges remain:

- It will continue to be difficult to measure the effectiveness of individual supports within a package. To this end, DJEI's synthesis report has recommended advancing new evaluation approaches and methodologies, e.g. developmental approaches such as hypothesis testing; and
- Data availability – In the previous evaluations, control groups were formed from companies within the enterprise support agencies databases, i.e. they had at one time or another engaged with the enterprise agencies but had not received the specific supports being evaluated. While this is currently the best available data, it could be improved through the development of an anonymised database of non-supported internationally trading companies in the Irish economy. This would, along with the advancement of developmental approaches to evaluation, allow evaluators to control for selection bias and undertake more robust evaluations. Such a project should be led by the Central Statistics Office (CSO) with support from DJEI, EI and other relevant stakeholders.

Summary of Key Points

- The current rationale for industrial policy, the systems approach, reflects international best practice in the area of enterprise supports. The approach, which is company centric, involves the provision of tailored interventions to companies.
- The systems approach is not without its limitations. While steps have been taken to minimise the self-selection of companies for supports, more data on non-supported internationally trading companies in the Irish economy is need to effectively assess this issue.
- A recent suite of evaluations conducted by DJEI has shown the supports current provided by EI to client companies are broadly effective across a range of areas including increasing employment and exports. However, the systems approach makes it extremely difficult to assess the effectiveness of individual supports within a package. Overcoming this issue will need to be considered going forward.
- The collection of more/better data for companies supported by EI's new Client Engagement Model in addition to the provision of anonymised datasets for the broader cohort of non-supported internationally trading companies in the Irish economy should be pursued in order to support more robust evaluation going forward.

Efficiency / Sustainability

This section of the report assesses the efficiency and sustainability of Enterprise Ireland over the last number of years. It covers three areas, including:

- Trends in income and expenditure;
- Trend in Enterprise Ireland staff numbers; and
- Trends in grant approvals and payments.

Income and Expenditure Trends

The table below details trends in income and expenditure in EI from 2005 to 2016. In the period up to 2010, both income and expenditure increased significantly driven by an increased Exchequer allocation to EI. After this point, expenditure levels fell due to the constraints on the Exchequer brought about by the global financial crisis. In recent years, EI's income and expenditure have, in the main, been increasing.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EI Income	**286**	**296**	**310**	**389**	**461**	**466**	**345**	**357**	**333**	**349**	**365**	**360**
EI Expenditure	**253**	**276**	**298**	**405**	**459**	**470**	**344**	**339**	**326**	**345**	**359**	**361**
Surplus/Deficit	**33**	**20**	**12**	**-16**	**2**	**-4**	**1**	**18**	**7**	**4**	**6**	**-1**
Annual Exchequer Allocation	230	246	276	352	430	444	323	317	293	277	292	286
Annual Exchequer Allocation as % of Income	80.4	83.1	89.0	90.5	93.3	95.3	93.6	88.8	88.0	79.4	80.0	79.4

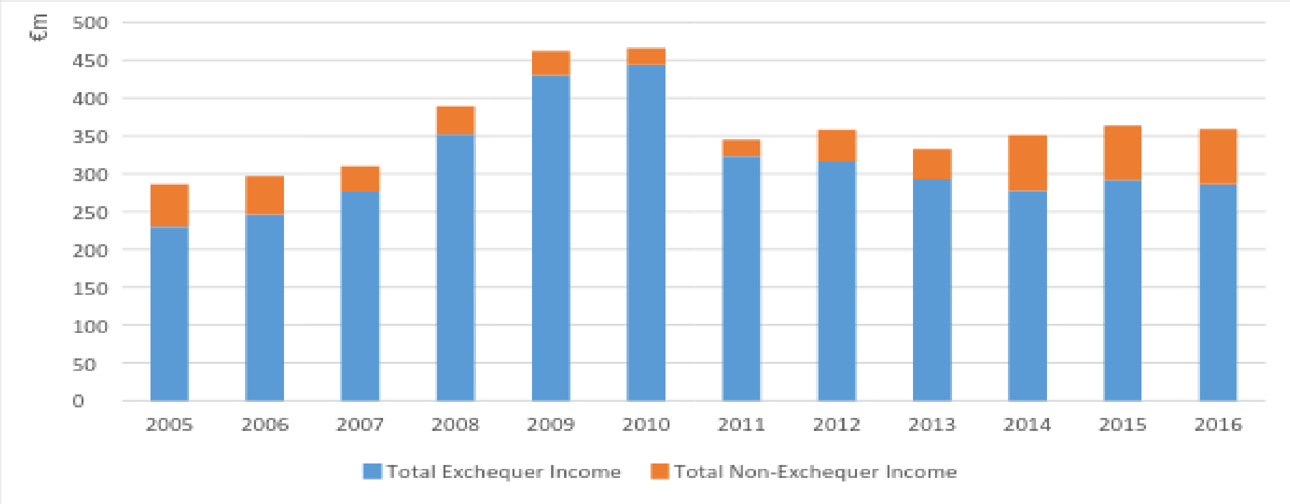
Table 3: EI Income, Expenditure and Exchequer Allocation (€m), 2005-2016

Source: Enterprise Ireland

Analysis of Income

The total income of EI in 2016 was €360m. Having increased significantly towards the end of the 2000s, peaking at €466m in 2010, EI's income fell back to just below €350m the following year. Since this point, it has been relatively stable. This has, for the most part, been achieved through the generation of increased non-Exchequer income. Having represented 20% of total income in 2005, this category narrowed to just 5% in 2010. Having experienced growth since then, non-Exchequer income once again accounts for a fifth of total as of 2016.

Figure 8: Trend in EI Income by Source (€m), 2005-2016



Source: Enterprise Ireland

A further breakdown of non-Exchequer income shows that the main categories are on the capital side – seed and venture capital investments and the sale / redemption of shares. Together, these accounted for 92% of own resource *capital* income in 2016 and 88% of *all* own resource income (current and capital). Both categories have increased in each year since 2013.

Table 4: EI's Own Resource Capital Income (€000s), 2008-2016

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Venture Capital Fund Income	8,318	2,957	7,402	12,382	14,246	7,394	31,549	35,654	36,874
Sale / Redemption of Shares	14,532	9,105	14,685	32,017	14,807	20,354	21,266	25,008	26,279
Dividends, Grant Refunds and ESF Income	3,844	1,665	6,372	5,128	7,524	7,301	9,701	7,077	5,699
Total	**26,694**	**13,727**	**28,459**	**49,527**	**36,577**	**35,049**	**62,516**	**67,739**	**68,852**

Source: Enterprise Ireland

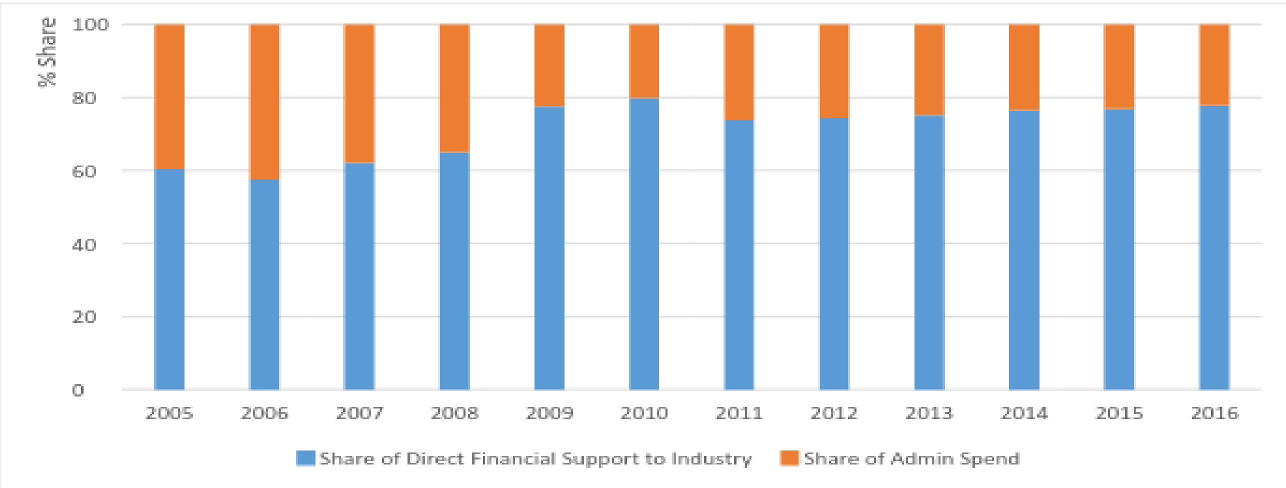
Over a longer period of time, venture capital has been the area of growth in own resource income. This has been driven by an increased emphasis in this type of funding by EI. As the analysis of expenditure presented below shows, in terms of direct financial support to industry, seed and venture capital investments have been the largest growth area since 2008 increasing from €8m to €54m representing a 575% increase. It is acknowledged that because EI is an arms length investor it has limited control over the returns from venture capital investments. However, this has been an area of significant growth in income and in the context of constraints on the Exchequer, the degree to which EI can maintain or increase the level of own resource income could be assessed in more detail.

Analysis of Expenditure

Expenditure trends have been similar to above, peaking at €470m in 2010. The following year, expenditure fell by 27% to €344m. This fall was driven by a decrease in EI's Exchequer allocation in 2011. As of 2016, spend has increased by 5% on 2011 levels and now rests between 2007 and 2008 expenditure levels.

Expenditure can be broadly broken down into two categories, direct financial support to industry and administrative expenditure. Looking at this breakdown shows that an increasing share is being allocated to direct financial supports to industry in the last number of years. From 60% to total spend in 2005, this has increased to 78% or €281m in 2016. At the same time administrative expenditure has declined. Having reached a low of 20% of spend in 2010, in 2016 it accounted for 22% of expenditure. **This is a positive trend and indicates that more of EI's resources are going to directly support client companies rather than on the operations of the agency.**

Figure 9: Percentage Share of EI Expenditure by Type, 2005-2016



Source: Enterprise Ireland

Looking in more detail at the direct financial supports to industry highlights a number of trends since 2009.

- Grants for third level R&D, used to promote commercialisation and collaboration between companies and third level institutions, is the largest category of spend accounting for €79m of the €281m total or nearly 30%. This has also been the second largest growth area since 2008, up 18%.
- The largest growth area, as indicated below, has been seed and venture capital supports which increased by 575% from just €8m in 2008 to €54m in 2016. It is now the third largest category of spend behind 3rd level R&D and grants to industry (€56m).
- Four categories have experienced declines in spend since 2008 with the most significant of these being other financial supports to industry (-96% to €1m) and in-company R&D grants (-25% to €24m).

Table 5: Direct Financial Support to Industry (€m), 2008-2016

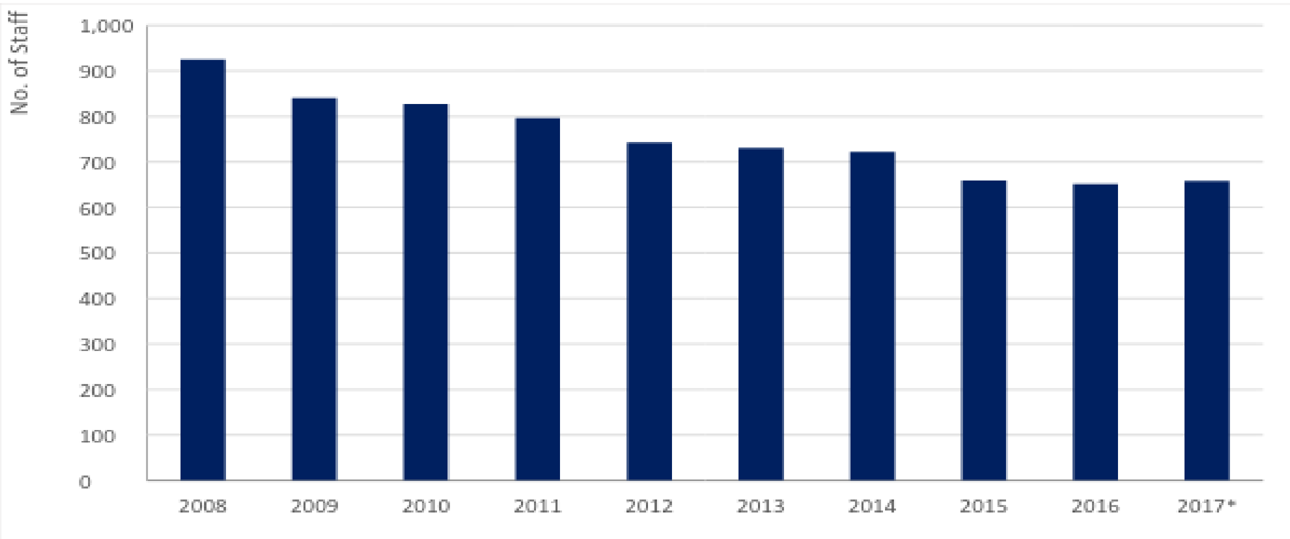
Support Type	2008	2009	2010	2011	2012	2013	2014	2015	2016	% Change 09-16
Third Level Research and Development	67	65	65	71	67	69	70	72	79	17.9
Grants to Industry	57	61	52	45	44	46	47	58	56	-1.8
Seed and Venture Capital	8	16	16	20	30	33	46	54	54	575.0
Third Party Agencies funded through EI	43	55	55	40	37	35	41	40	36	-16.3
Direct Equity investments	31	75	47	36	34	32	31	28	31	0.0
In-company R&D Grants	32	36	41	25	20	24	25	21	24	-25.0
Other Financial Support to Industry	25	48	99	15	20	6	4	3	1	-96.0
Direct Financial Support to Industry	**263**	**356**	**375**	**254**	**252**	**245**	**264**	**276**	**281**	**6.8**

Source: Enterprise Ireland

Staffing Trends

Based on staff numbers, Enterprise Ireland is the third largest agency in the State after Tusla (3,597) and Teagasc (1,004). As of May 2017, EI employed 652 staff[14], eight more than it had in the previous year. As the following chart indicates EI's staffing levels have declined in recent years from 926 in 2008. This decline in staffing is second only to Teagasc which shed over 570 FTEs in the same period.

Figure 10: Staff Numbers in Enterprise Ireland, 2008-2017*



Source: Enterprise Ireland, Note:*As of May 2017

[14] Based on data provided to DPER by EI.

There are a number of reasons behind this decline in staff. In 2014, EI introduced a voluntary redundancy scheme which saw 55 staff leave the organisation. A more significant driver was the moratorium on recruitment in the public sector which meant that staff leaving the organisation were not replaced. With the moratorium now lifted, the number of people employed by EI has stabilised.

Looking ahead, the level and mix of staffing will need to be considered by EI and the DJEI Vote in DPER in the context of developments in the labour market and the economy more broadly in addition to the key challenges facing the agency.

Grant Approvals and Payments

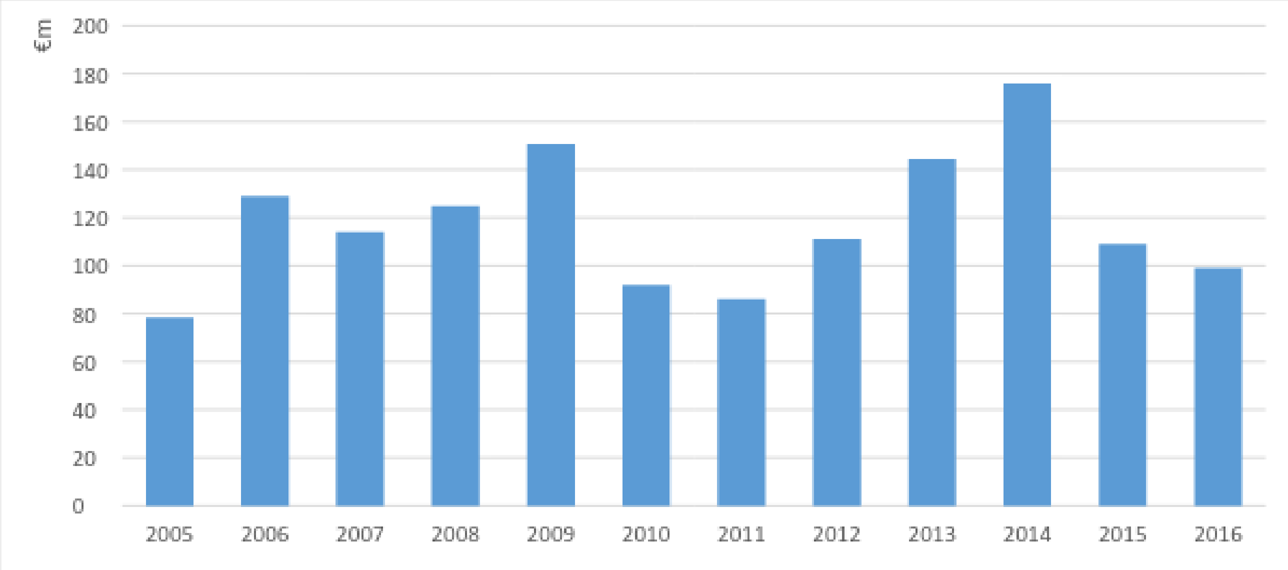
One of the key services EI provides to clients is the provision of grant supports and equity investments. This section analyses recent trends in this area in terms of grant approvals and payments.

In the data that is set out below, it should be noted that:

- Payments in a given year do not necessarily match to approvals in the same year. This, in the main, reflects the fact that when a company is approved for funding, it is required to undertake the project / investment first in addition to the multiannual and conditional nature of approvals. For equity investments, payments are then made in stages while for grants, payments are made in full at the end of the project. However, there is also a proportion of the gap between approvals and payments accounted for by projects that were approved but which did not proceed. This can occur for a number of reasons including projects not going ahead, company failures, companies securing investments from elsewhere, etc.
- The approach to approvals and payments adopted by EI requires the forecasting of drawdowns over a multi-year period. To do this, EI carries out a detailed budgetary analysis with forecasting based on historical trends on drawdown rates. This, in addition to ensuring that in a given year no more than 85% of the current budget is committed, ensures no capital budget overspend.
- The latest available data indicates the following capital commitments for EI:
    - 2017 – €182m;
    - 2018 – €133m; and
    - 2019 – €108m.

Looking firstly at recent trends in approvals, the data from 2005 to 2016 shows that the total level of grants approved by EI was €1.42bn. There has been quite a bit of variation in approvals over time with the spike in

2014 related to approvals in the dairy sector and the removal of milk quotas in 2015. **Figure 11: Trend in Grant Approvals (€m), 2005-2016**



Source: Enterprise Ireland

Assessing the data in more detail shows that Dublin received over a third of all approvals from 2005 to 2016. This was the largest share by region. The midlands received the lowest share of approvals at 4.7%. In terms of grant types, capability grants represented 30% of approvals with start-ups making up only 4.5%. The sectoral share of approvals has seen ICT and International Services dominate. Client companies in this sector have received over 40% of approvals. By contrast, the food sector's share of approvals was 23.6% over the period.

Table 6: Share of Grant Approvals by Classification (%), 2005-2016

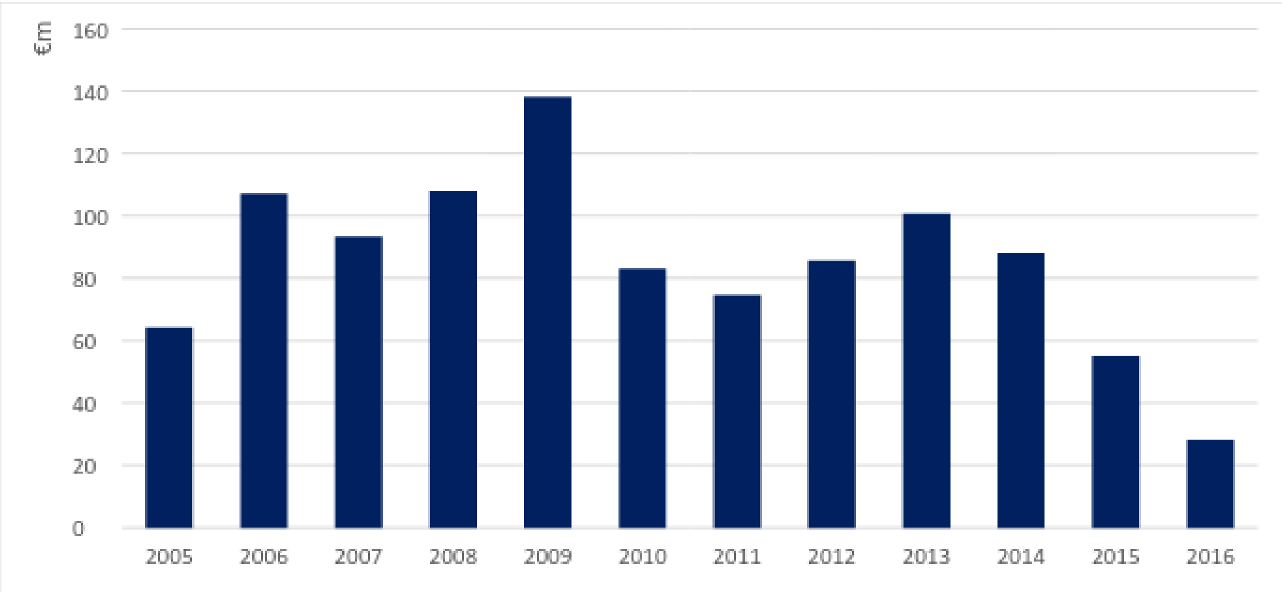
Regional Share - %		Thematic Grant Type Share - %		Sectoral Share - %	
S & E - Dublin	34.1	Capability	30.2	ICT and International Services	40.5
BMW - Border	13.2	Expansion	25.0	Industrial, Life Sciences & Consumer	35.9
S & E - South West	11.6	Internationalisation	20.3	Food	23.6
S & E - Mid-West	10.0	RD&I	20.0		
S & E - Mid-East	9.0	Start Up	4.5		
S & E - South East	8.9				
BMW - West	8.5				
BMW - Midlands	4.7				
S & E - Dublin	34.1				

Source: Enterprise Ireland

While €1.42bn of approvals were made between 2005 and 2016, the corresponding figure for payments was €1.03bn. The gap, as set out above, can be explained by EI's payments process and a variety of other factors, e.g. company failures, that lead to approvals not being paid. Because of this, a direct comparison of approvals and payment does not provide much value. However, it is useful to assess the profile of payments in terms of region, grant type and sector.

For region, not surprisingly Dublin again takes the largest share at 38.4% of payments. Dublin's dominance makes sense when compared to CSO data which shows that over the period 2008 to 2014 (latest data available), a third of all active enterprises in Ireland were in Dublin. An interesting point to highlight in the table below is the high share of RD&I and Start-Up payments at 31.2% and 25.6% respectively. The sectoral shares are broadly the same for approvals and payments with ICT and International Services taking 45.6% of payments.

Figure 12: Trend in Grant Payments (€m), 2005-2016



Source: Enterprise Ireland

Table 7: Share of Grant Payments by Classification (%), 2005-2016

Regional Share - %		Thematic Grant Type Share - %		Sectoral Share - %	
S & E - Dublin	38.4	RD&I	31.2	ICT and International Services	45.6
S & E - South West	11.9	Start Up	25.6	Industrial, Life Sciences & Consumer	34.6
BMW - Border	11.6	Expansion	19.6	Food	19.8
S & E - South East	8.9	Capability	19.3		
S & E - Mid-West	8.3	Internationalisation	4.3		
S & E - Mid-East	8.2				
BMW - West	8.2				
BMW - Midlands	4.7				
S & E - Dublin	34.1				

Source: Enterprise Ireland

Summary of Key Points

- EI appears to have become a more efficient agency in recent years, reducing the share of administration expenditure and staffing levels while increasing the share of direct financial supports to industry.
- While noting that EI is an arms length investor in relation to venture capital, the degree to which own resource income can be maintained or increased should be assessed in the context of limited additional Exchequer resources. This should be done in close conjunction with the DJEI Vote Section in DPER to ensure that the correct procedures are adhered to.
- EI appears to have reasonably robust processes in place for forecasting and managing the profile of grant approvals and payments over time. However, an assessment of approvals and payments which links payment in future years with the year of approval would have value in terms of identifying where approvals are more or less likely to result in payments. This analysis, which could provide value for the future development of processes or indeed EI's Client Engagement Model, should incorporate approvals and payments by sector, grant type, region and company size.

Other Policy Considerations

Aside from the more standard evaluation questions that this paper has assessed above, it is also important to consider, especially in the current context, the other policy considerations that may impact on EI into the future. The focus here is on two areas in particular:

1. Brexit; and
2. Climate Change.

These areas were chosen because of the potential impacts on both EI and the Exchequer more broadly.

Brexit

In June 2016, the UK voted to leave the EU, a vote which has led to the emergence of range of social, political and economic risks for both jurisdictions. While the full extent of the potential costs of the decision will remain unknown for some time, what is clear is that the costs borne by each EU country are likely to be amplified for Ireland because of the extent of the trading relationship that exists with the UK.

To put that in context, CSO data highlights that in 2015 nearly one fifth of all exports (goods and services) from Ireland went to the UK. This represents a significant level of activity. Looking specifically at EI client companies, the overall level of exposure is even more pronounced as the UK was by far the largest market at €7.55bn or 35% of all EI client company exports in 2016.

Sectoral Exposure Analysis

It is also useful to consider the exposure to the UK market on a sectoral basis. This is important because of the implications for EI, EI's client companies and for the Exchequer. This is considered below using recent research first conducted by the Department of Finance (DoF)[15] and then replicated by the Department of Jobs, Enterprise and Innovation (DJEI). Both Departments use three exposure metrics with the first two common to both analyses.

- (DoF and DJEI) Size exposure – where a sector's exports to the UK are a large share of Ireland's total exports to the UK;
- (DoF and DJEI) Proportional exposure – where the UK is the destination for a high proportion of a sector's total exports;
- (DoF Only) Exposure index – an index that equally weights the above two measures in one composite measure; and
- (DJEI Only) Import exposure – where a sector imports a large share of its inputs from – or via – the UK.

[15] UK EU Exit – An Exposure Analysis of Sectors of The Irish Economy

Aside from the third indicator, a key difference between the two analyses is that the DoF analysis is undertaken at the broader sectoral level while DJEI's analysis is at the firm level for agency support companies (not just EI clients). The most exposed sectors as identified in the DoF paper are set out in the table below and include, among others, the food and beverage and traditional manufacturing sectors.

Table 8: DoF Sectoral Exposures

Size Exposure	Proportional Exposure	Exposure Index
Computer Services	Transport Services	Food & Beverage
Food and Live Animals	Minerals	Traditional Manufacturing
Chemicals	Manufactured Goods	Materials Manufacturing
Insurance/Financial Services	Food and Live Animals	Pharmachem
Transport		Printing

Source: DoF (2017) UK EU Exit – An Exposure Analysis of Sectors of the Irish Economy.

In terms of the key characteristics of the sectors in the table, the research found that, excluding the Pharmachem sector, **the most exposed sectors are mostly Irish owned, regionally based, have relatively low profit levels and have a greater share of small and medium-sized enterprises (SMEs).** In addition they have a relatively high multiplier and account for a relatively high share of employment in regions which have experienced a slower labour market recovery since the financial crisis period.

The most exposed sectors from DJEI's analysis include ICT services, food and beverages and traditional manufacturing (see table presented below). Taking the two tables together shows that there a number of common sectors, including computers, food, chemicals, financial services, traditional manufacturing and transport services.

This suggests that a significant cohort of EI client companies are operating in sectors that are particularly exposed to the UK market and the potential negative impacts of Brexit.

Table 9: DJEI Sectoral Exposures

Size Exposure	Proportional Exposure	Import Exposure
1. Computer Programming	8. Wood and Wood Products	14. Rental and leasing services
2. Computer Consultancy	9. Agriculture, Fishing, Forestry, Mining and Quarrying	15. Computer, electronic and optical products
3. Food, Drink, and Tobacco	10. Paper and Printing	16. Petroleum, furniture, and other manufacturing
4. Chemicals	11. Energy, Water, Waste and Construction Services	17. Wholesale/retail trade
5. Computer Facilities Management	12. Textiles, Clothing, Footwear, and Leather	18. Basic pharmaceutical products
6. Transport Services	13. Non-Metallic Minerals	
7. Insurance/Financial Services		

Source: DJEI analysis based on ABSEI/CSO input output tables, and Dept. of Finance data.

The Response to Brexit

In responding to the Brexit challenge, the Government introduced a number of measures aimed at supporting businesses and entrepreneurship in Budget 2017. These included a reduced capital gains tax for entrepreneurs, an extension and amendment of the Foreign Earnings Deduction to help Irish exporters to diversify their export and import markets and an increase to the Earned Income Tax Credit for self-employed taxpayers to encourage entrepreneurship.

In addition to these measures, both DJEI and EI have introduced a number of new initiatives, including:

- Brexit focused EI Strategy from 2007 – 2020;
- Eurozone Strategy 2020;
- Brexit SME Scorecard;
- Guides for Irish businesses following the UK referendum;
- Information notes for Irish exporters to the UK;
- Brexit roadshows; and
- Brexit Unit in DJEI.

In the context of Brexit, EI will need to support companies to maximise opportunities to sustain and growth their exports to the UK where appropriate but importantly to diversify their export base. The latter will be particularly challenging for EI given the level of exposure to the UK market. This challenge is highlighted by the finding of the ESRI research presented earlier around the concentration of exporters, the challenge of promoting exports in the services sector, the small number of products that exporters are selling, the lack of diversification in food exports, the dominance of a few top performers and the high risk of exit associated with exporting activity. These findings frame the challenge that EI will have in supporting companies and the above strategies and initiatives are important steps in this regard.

Exchequer Impacts of Brexit

Balanced with the need to respond to the challenges faced across different sectors of the economy is the need to consider the likely impacts on the Exchequer. As can already be seen from Budget 2017, Brexit will likely lead to an increase in demand for Exchequer resources. This increase in demand must been seen in the context of demands from other areas including health, education, public pay, etc. While supporting enterprise is obviously an important area, it is one of many.

Climate Change

Another important policy consideration for EI is climate change. Issues related to climate change apply to EI given its role in supporting companies across a range of sectors, some of which are particularly important in the context of climate change, e.g. agri-food. This is not only in terms of contributing to emissions but also in terms of helping to address it.

About 100 large installations in Ireland are part of the EU-wide Emissions Trading Scheme (EU ETS) where they have to account for their own emissions. The Emissions Trading Scheme is the EU's main tool for reducing emissions of greenhouse gases from large scale power generation and industry.

The State is legally liable for meeting non ETS targets. Ireland's non-ETS target (which includes emissions agriculture, transport, the built environment and waste) accounts for the bulk of Ireland's emissions, at 73% (noticeably higher than the EU average of 55%).

Focus on Agriculture

In 2014, agricultural activity contributed to 33% of greenhouse gas emissions in Ireland. Official projections of agricultural emissions indicate that they are expected to increase from 2015 because of changes in animal numbers, crop areas and projected nitrogen application to soils. By 2020, it is projected that the agriculture sector will comprise approximately 44% of the non-ETS sector.

These projections present particular challenges for Ireland. To meet these challenges, a cross departmental and cross agency approach will be required. This is reflected in the National Mitigation Plan.

There are also implications for EI given that one of the key sectors that the agency supports is the food sector. Over the last four years, nearly 30% of all grant approvals went to companies in this sector.

Table 10: EI Grant Approvals in the Food Sector (%), 2013-2016

Year	Grant Approvals in Food Sector as a % of Total
2013	36.4
2014	37.3
2015	21.1
2016	21.0

Source: Enterprise Ireland

An assessment of the degree to which the projects behind these grants are assisting or hindering the reduction of greenhouse gas emissions in the agriculture sector is beyond the scope of this paper. However, this is an issue that needs to be factored into decision making by EI going forward. This may have implications for DJEI and for EI in terms of the current model for the allocation of funding to companies. There is also a context of embedding the creation of transport emissions depending on the siting of facilities. For example, the appropriateness of DJEI's ex-ante economic appraisal model and whether it is climate change proof will need to be considered. This is timely given that it is in the process of being updated. Ultimately, DJEI and EI will need to liaise with D/CCAE on the climate action issue such as to consider the benefits and costs of approving projects that may have a negative impact in terms of climate targets but a positive impact in terms of exports, employment, etc.

The issue of targeting grants towards supporting the development renewable energy may become more appropriate. These and other issues will need to be considered in more detail into the future given the significant potential costs to the Exchequer in terms of purchasing compliance to meet targets or fines for not achieving climate change and energy targets.

Summary of Key Points

- Brexit and climate change represent key policy challenges for EI. Given the sectors within which EI's client base operates, Brexit will present particular challenges, e.g. market diversification, etc. While EI has begun to meet these challenges through a number of initiatives, it is likely that additional resources will be demanded to support companies. These demands will have to be considered in the context of competing demands, Brexit or otherwise, from across the system.
- Climate change will also have important implications for EI. It may impact on the type of companies that EI supports going forward and it will also have implications for the decision making systems and processes both DJEI and EI currently have, e.g. DJEI's ex-ante appraisal model.

Conclusions / Key Findings

This paper assesses the rationale for enterprise policy in Ireland, the targeting of supports in Enterprise Ireland (EI) and the efficiency of spend in EI in recent years. Important policy issues such as Brexit and climate change are also considered in the context of enterprise policy. The key findings include:

- EI client companies make a very significant contribution in the Irish economy in terms of employment, exports, etc. However, the level and composition of expenditure may need to be refocussed given the existing level of Exchequer support and the new challenges facing the agency.

- Enterprise policy in Ireland is in line with international best practice - it is company centric and operates within a systems approach where interventions are tailored to each company. This approach is appropriate but has a number of limitations:
    - The level of self-selection bias is unclear. To assess this in a more robust way, an anonymised dataset of the broader cohort of non-supported internationally trading companies in the Irish economy needs to be collected. The CSO should lead on this project with the support of EI, DJEI and other relevant stakeholders.
    - Recent evaluations of EI's supports have found them to be broadly effective. However, where packages of supports are provided, it is extremely difficult to evaluate which supports are more effective than others. While the design of EI's new Client Engagement Model may facilitate better evaluation, it will need to be supported by both the collection of robust data by EI and, as set out above, the development of anonymised data on the broader cohort of non-supported internationally trading companies in the Irish economy.

- In terms of EI operations, processes and efficiency:
    - EI appears to have become a more efficient agency in recent years, reducing the share of administration expenditure and staff levels while increasing the share of direct financial supports to industry. Going forward, EI may have to reallocate staff to meet emerging challenges. The creation of any new posts will have to be assessed with the Vote in the context of developments in the economy.
    - The degree to which own resource income can be maintained or increased should be further assessed in the context of limited additional Exchequer resources. This should be done in conjunction with the Vote to ensure that the correct procedures are adhered to.
    - While EI appears to have reasonably robust processes in place for forecasting the profile of grant approvals and payments over time, an assessment of approvals and payments which links payments in future years with the year of approval would have value in terms of identifying where approvals are more or less likely to result in payments. Data to undertake this assessment should be made available by EI.

- Other Policy Considerations:
    - Brexit is likely to have a significant impact on EI's client base and while EI has already responded to this in a number of ways, there is a risk that an increased level of Exchequer funding will be demanded. These demands will need to be considered by the DJEI Vote in DPER in the context of competing demands for resources across the system.
    - Climate Change - EI and DJEI may have to adapt processes and procedures (e.g. DJEI's ex-ante economic appraisal model) in order to better account for the costs and benefits of climate change. This may be a particularly important in the food sector and transport sectors.