OECD Studies on SMEs and Entrepreneurship

Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes 2023



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Foreword

The purpose of this book is to support and encourage policy makers to develop reliable evaluations of the impact of SME and entrepreneurship policies and to make use of impact evaluation results in policy design and implementation. The book argues that systematic and reliable evaluation is vital for justifying the use of public resources for SME and entrepreneurship support and for steering those resources to the policy measures that deliver the greatest benefits against government objectives. It offers government policy makers guidance in making the case for evaluation, commissioning evaluations that will be reliable and learning from existing and new evaluations.

The starting position of the book is that there remains a dearth of reliable impact evaluation evidence in the domain of SME and entrepreneurship policies, despite great improvements in data availability and evaluation methodologies since the previous version of this Framework appeared in 2007. This gap needs to be addressed through more and better evaluation. The book provides recommendations and guidance on how to build the required evidence base. At the same time, however, there is a small core of high-quality SME and entrepreneurship policy impact evaluations internationally, ranging across different OECD countries and different policy intervention areas. This book profiles the methodologies and findings of a selection of these high-quality evaluations. The findings are mixed in terms of the extent to which the evaluations report positive policy impacts on key policy objectives. The book considers the implications of this mixed evidence for future policy development.

The book is part of the programme of work of the OECD Committee on SMEs and Entrepreneurship (CSMEE), which continues the work of its predecessor, the OECD Working Party on SMEs and Entrepreneurship (WPSMEE) in this area. Promoting SME and entrepreneurship policy evaluation has long been a priority for these bodies, as evidenced by the calls for better evaluation in the declarations of each of the OECD SME and entrepreneurship ministerial meetings – Bologna (2000), Istanbul (2004), Mexico City (2018) – and in the Recommendation of the OECD Council on SME and Entrepreneurship Policy, issued in 2022.

The book highlights several issues that need to be addressed by the SME and entrepreneurship policy community. Its overall concern is that the evaluation evidence on the impact of SME and entrepreneurship policy remains weak, and it considers possible reasons why policy makers may not be pursuing reliable evaluation and how to respond to this. It also signals a number of obstacles to reliable evaluation that policy makers need to address, such as insufficient clarity on policy objectives or lack of control group data to establish a counterfactual. It offers guidance on how policy makers can address such issues.

The book also includes profiles of 50 high-quality impact evaluations of SME and entrepreneurship policy in OECD countries. This does not by any means include all such evaluations from recent years, but it does provide a range of important examples from a variety of OECD countries and across different policy areas. The book profiles the methodology used for each evaluation, which can serve as inspiration for other evaluators and the policy makers commissioning evaluations. It also profiles the key findings of each evaluation. By gathering together only reliable findings, we can start to

consider what works and does not work in SME and entrepreneurship policy. While this book can only touch the surface of this ongoing endeavour, it does provide some important hypotheses for exploration with further evaluation work.

As well as offering a self-contained set of information and guidance, this Framework serves as a foundation of OECD tailored support to countries for strengthening their SME and entrepreneurship policy monitoring and evaluation arrangements. Thus, the key considerations for successful evaluation set out in this volume are taken up in one-to-one OECD advice, where requested by governments, on creating effective policy monitoring and reporting systems and in deciding on potential methodologies for evaluating their major programmes.

The volume updates the previous OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes (OECD, 2007[1]) in order to take account of recent developments in both the techniques and data sources available for SME and entrepreneurship policy evaluation and in the scope and practice of SME and entrepreneurship policy.

It forms part of broader OECD efforts to strengthen policy evaluation across government as a whole. In particular, it will support the implementation of the OECD Recommendation on Public Policy Evaluation [OECD/LEGAL/0478] and the OECD Recommendation on SME and Entrepreneurship Policy [OECD/LEGAL/0473], both adopted by the OECD Council in June 2022.

This document was approved by the OECD Committee on SMEs and Entrepreneurship (CSMEE) through written procedure on 09 December 2022 (CFE/SME(2022)23) and prepared for publication by the OECD Secretariat.

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The project was led by Jonathan Potter, Head of the Entrepreneurship Policy and Analysis Unit, CFE, OECD, under the overall supervision of Céline Kauffmann, Head of the Entrepreneurship, SME and Tourism Division, CFE, OECD. The report was prepared by a team involving Jonathan Potter (OECD/CFE), David Storey (University of Sussex, UK), Ondřej Dvouletý (Prague University of Economics and Business) and Pablo Shah (OECD/CFE).

The OECD Committee on SMEs and Entrepreneurship and its predecessor the Working Party on SMEs and Entrepreneurship (WPSMEE) have been active in steering the development of this report and reviewing the documents. A session of the OECD Ministerial Conference on SMEs and Entrepreneurship in Mexico City in 2018 helped frame the issues. The topic was further defined in the preparation of the programmes of work of the WPSMEE and CSMEE in 2019-20 and 2021-2022. An initial draft of Part I and Part II of the Framework was submitted for comment to the WPSMEE in April 2020 and an initial draft of Part III was discussed at a meeting of the WPSMEE in November 2020. Comments and inputs were taken into account in a revised version of the report, which was approved by the CSMEE in December 2022.

Table of contents

Foreword 3

Acknowledgements 5

Reader's Guide 11

Executive Summary 18

Part I: Evaluation principles and state of evaluation practice 21

1 What is evaluation and why do it? 22
- 1.1. What is evaluation? 23
- 1.2. Why do evaluations? 28
- References 30
- Notes 31

2 The state of play in SME and entrepreneurship policy evaluation 33
- 2.1. The infrequency and low quality of evaluation 34
- 2.2. The "mixed" evidence on impact 35
- 2.3. Is the current evaluation evidence base fit for purpose? 35
- 2.4. Learning the lessons for evaluation practice 40
- References 41
- Notes 42

Part II: Review of methods and findings from reliable evaluations 43

3 Existing meta-evaluations 44
- References 50

4 Review of 50 programme evaluations from 28 OECD countries 51
- 4.1. Selecting the evaluations 52
- 4.2. The evaluations: overview of evaluation findings and key features 52
- 4.3. Policy issues 64
- 4.4. Evaluation coverage and quality 67
- References 69
- Notes 69

5 Synthesis and implications 71
5.1. Commonalities between the existing meta-evaluations and our review 72
5.2. Lessons from Part II for policy makers 72
5.3. Lessons of Part II for evaluation practice 73
Reference 74

Part III: Learning the lessons 75

6 Why do SME and entrepreneurship policy evaluations provide mixed evidence of impact? 76
6.1. Is policy flawed in principle? 77
6.2. Is the delivery of SME and entrepreneurship policy problematic? 78
6.3. Is it the evaluation that is the problem? 78
6.4. Are policy outcomes diverse because SMEs and entrepreneurs are diverse? 80
6.5. Can the policy have unintended consequences? 81
6.6. In summary 81
References 82
Notes 83

7 What are the implications of the evaluation evidence for refocusing SME and entrepreneurship policy? 85
7.1. Balancing “Soft” versus “Hard” support 86
7.2. Selecting programme participants and focusing on “Gazelles” 87
7.3. Macro policy choices: the role of institutional factors 88
References 90
Notes 91

8 What needs to be improved in SME and entrepreneurship policy evaluation? 93
8.1. Increasing the scale of evaluation 94
8.2. Exploiting new techniques and data 94
8.3. Specifying Objectives and Targets 95
8.4. Increasing information on programme expenditure 96
8.5. Increasing evaluation co-ordination and coherence 96
8.6. Developing international exchange of information on evaluation results 97
References 98
Notes 98

9 What issues did COVID-19 SME and entrepreneurship support highlight for evaluation? 99
9.1. The impact of the COVID-19 crisis on SMEs and entrepreneurship 100
9.2. The COVID-19 SME and entrepreneurship policy response in OECD countries 101
9.3. Drawing the evaluation lessons from the COVID-19 policy response 104
References 108
Notes 109

10 Re-stating the key policy and evaluation messages 111
10.1. Preparatory measures for effective evaluation 112
10.2. Evaluation effort and regularity 113

10.3. Considerations for the policy mix 113
10.4. Technical considerations for evaluation 114
10.5. Utilisation of evaluation findings 114

Annex A. Explanation of the template for the 50 evaluation profiles 115

Annex B. Methods and findings of the 50 individual evaluations 118

Annex C. Examples of other relevant evaluation studies not included in the report 162

Annex D. Brief description of included evaluation methods 164

TABLES

Table 1. Information available for each reviewed evaluation study in Annex B 13
Table 2. The policy evaluations reported by main category of intervention 14
Table 3.1. Meta-evaluations of SME and entrepreneurship policy 47
Table 4.1. Summarising the findings and key features of 50 reliable evaluations of SME and entrepreneurship policy 53
Table 4.2. Comparison of Evaluation Quality Score and estimated programme impact 65
Table 4.3. Comparison of type of programme – Hard, Soft and Both – and estimated programme impact 66
Table 4.4. Evaluation metrics used in the evaluations 68
Table 9.1. Overview of COVID-19 SME and entrepreneurship policy responses 102
Table 9.2. Selected discretionary fiscal measures adopted in countries in response to COVID-19 by 24 November 2020, % of 2019 GDP 106

Table B.1. The impact of government financial assistance on the performance and financing of Australian SMEs 118
Table B.2. The effectiveness of investment subsidies: evidence from a regression discontinuity design 119
Table B.3. The economic impact of the Canada Small Business Financing Program 120
Table B.4. Assessing the microeconomic effects of public subsidies on the performance of firms in the Czech food processing industry: A counterfactual impact evaluation 120
Table B.5. Do firms supported by credit guarantee schemes report better financial results 2 years after the end of intervention? 121
Table B.6. The role of financial support in SME and economic development in Estonia 122
Table B.7. Impact evaluation of EU subsidies for economic development on the Hungarian SME sector 123
Table B.8. Public credit guarantee schemes and SMEs' profitability: Evidence from Italy 124
Table B.9. Are lending relationships beneficial or harmful for public credit guarantees? Evidence from Japan's Emergency Credit Guarantee Programme 125
Table B.10. Evaluation of credit guarantee policy using propensity score matching 126
Table B.11. The impact of investment support on labour productivity in Lithuanian family farms: A propensity score matching approach 126
Table B.12. Mexico: Impact evaluation of SME programmes using panel firm data 127
Table B.13. Impotence of crisis-motivated subsidization of firms: The case of Slovenia 128
Table B.14. Loan guarantee schemes in the UK: the natural experiment of the enterprise finance guarantee and the 5 year rule 129
Table B.15. Finance and growth at the firm level: evidence from SBA loans 130
Table B.16. Publicly funded business advisory services and entrepreneurial outcomes 131
Table B.17. Supplier development programmes and firm performance: Evidence from Chile 132

Table B.18. Assessing the effectiveness of guided preparation for new venture creation and performance: Theory and practice 132
Table B.19. The effect of business coaching on New Technology Based Firms: Survival–findings and lessons learned from a randomized controlled trial 134
Table B.20. The impact of consulting services on small and medium enterprises: Evidence from a randomized trial in Mexico 134
Table B.21. Broader or deeper? Exploring the most effective intervention profile for public small business support 135
Table B.22. The effect of grant receipt on start-up size: Evidence from plant level data 136
Table B.23. Entrepreneurship policy and firm performance Chile's CORFO seed capital programme 137
Table B.24. Retaining winners: Can policy boost high-growth entrepreneurship? 138
Table B.25. Can grants to consortia spur innovation and science-industry collaboration? Regression-discontinuity evidence from Poland 139
Table B.26. Do selected firms show higher performance? The case of Portugal's innovation subsidy 140
Table B.27. The impact of government-supported participative loans on the growth of entrepreneurial ventures 140
Table B.28. Inside the black box of outcome additionality: Effects of early-stage government subsidies on resource accumulation and new venture performance 141
Table B.29. Impact of Swiss technology policy on firm innovation performance: an evaluation based on a matching approach 142
Table B.30. Evaluating effectiveness of public support to business R&D in Türkiye through concepts of input and output additionality 143
Table B.31. Boon or boondoggle? Business incubation as entrepreneurship policy 144
Table B.32. Counterfactual impact evaluation on EU cohesion policy interventions in training in companies 145
Table B.33. The impact of entrepreneurship education on entrepreneurship skills and motivation 146
Table B.34. The effect of a tax training programme on tax compliance and business outcomes of starting entrepreneurs: Evidence from a field experiment 147
Table B.35. The impact of employees' and managers' training on the performance of small-and medium-sized enterprises: Evidence from a randomized natural experiment in the UK service sector 147
Table B.36. Behind the GATE experiment: Evidence on effects of and rationales for subsidized entrepreneurship training 148
Table B.37. The effects of micro-entrepreneurship programmes on labour market performance: experimental evidence from Chile 149
Table B.38. Long term effect of public subsidies on start-up survival and economic performance: An empirical study with French data 150
Table B.39. You can go your own way! The long-term effectiveness of a self-employment programme for welfare recipients in Germany 151
Table B.40. New evidence on long-term effects of start-up subsidies: Matching estimates and their robustness 152
Table B.41. The outcome of coaching and training for self-employment. A statistical evaluation of outside assistance support programmes for unemployed business founders in Germany 152
Table B.42. The ambiguous effects of public assistance to youth and female start-ups between job creation and entrepreneurship enhancement 153
Table B.43. Evaluation of the Spanish flat rate for young self-employed workers 154
Table B.44. Is starting a business a sustainable way out of unemployment? Treatment effects of the Swedish start-up subsidy 155
Table B.45. Publicly funded prestart support for new firms: who demands it and how it affects their employment growth 156
Table B.46. Public investment subsidies and firm performance – Evidence from Germany 157
Table B.47. How are growth and productivity in private firms affected by public subsidy? Evidence from a regional policy 158
Table B.48. Do subsidies to private capital boost firms' growth? A multiple regression discontinuity design approach 158
Table B.49. Industrial policy evaluation in the presence of spillovers 159
Table B.50. Some causal effects of an industrial policy 160

BOXES

Box 1.1. Six Steps to Heaven: Methods for assessing the impact of SME and entrepreneurship policy 27
Box 1.2. Scale and diversity of SME and entrepreneurship policy expenditure in the United Kingdom and Sweden 29
Box 9.1. Potential Objectives of COVID-19 SME and entrepreneurship policy responses 104
Box 9.2. Potential Targets and timescales for different COVID-19 policy responses 105
Box 9.3. Potential alternative measures of COVID-19 SME and entrepreneurship policy success 106

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Reader's Guide

Overview

Part I of this Framework provides information for readers seeking **high-level guidance on the principles** of conducting reliable impact evaluation. Of particular importance is the Six Steps to Heaven tool, which identifies progressively more reliable levels of evaluation based on features of the treatment-control group match.

Part II is most relevant for readers interested in **evaluation findings and their implications** for SME and entrepreneurship policy. It sets out the findings and policy messages from meta-evaluations and 50 individual high-quality evaluations. Table 4.1 summarises the findings of each evaluation. Section 4.3 and chapter 5 discuss the policy issues that emerge.

Part III is recommended for readers with an interest in exploring **how to adjust the mix of SME and entrepreneurship policy** to focus on the more effective parts of the policy portfolio. Chapter 7 explores the relative effectiveness of "Hard" and "Soft" support, the importance of targeting policy beneficiaries, and the importance of "Macro" interventions.

Part III also provides information for readers interested in **how to improve SME and entrepreneurship policy evaluation**. Chapter 8 highlights a number of areas for improvement in evaluation, such as better specifying policy objectives and increasing the scale of evaluation. Readers seeking more detailed insights on potential indicators, data sources and methodologies for evaluating specific SME and entrepreneurship programmes can examine the descriptions of the 50 high-quality evaluations set out in Annex B by type of policy intervention. Those interested in how to set up an evaluation programme to evaluate the impact of the government emergency support measures for SMEs and entrepreneurship introduced during the COVID-19 crisis, and in the role of evaluation for crisis responses more generally, can gather information from Chapter 9.

The remainder of this Reader's Guide sets out in further detail the main content included within the different parts of the Framework.

Part I: Evaluation principles and state of evaluation practice

Part I covers the "what, why and how" of SME and entrepreneurship policy evaluation. It reaffirms the case made in (OECD, 2007[1]) that it is vital to conduct reliable evaluations of SME and entrepreneurship policies and programmes. It also addresses the state of current SME and entrepreneurship policy evaluation practice, arguing that there is insufficient reliable evaluation evidence in the field of SME and entrepreneurship policy and setting out what can be done about it.

In more detail, Part I covers:

- The meaning and role of evaluation in SME and entrepreneurship policy.
- Weaknesses in current SME and entrepreneurship policy evaluation practice.

- Lessons for evaluation.

Part II: Evaluation methods and findings

Part II reviews methods and findings from an international selection of 50 impact evaluations drawn from a range of OECD countries and policy intervention areas. All meet high standards for methodological reliability (i.e. they are placed on Step V or Step VI of the Six Steps to Heaven framework). These are exemplars for evaluation methodologies, offering models for the data sources used and the analytical tools employed. Furthermore, policy makers can be confident that where conclusions are reached, they are based upon sound data and appropriate analytical techniques. The profile of each evaluation follows a standard template covering aspects of the programme assessed, the evaluation methodology used and the evaluation findings.

In more detail Part II covers:

- Evidence from international meta-evaluations.
- Methods of individual high-quality evaluations.
- Evaluation findings.
- Lessons for policy.
- Lessons for evaluation.

Part III: Learning the lessons

Part III draws out the lessons on how to improve evaluation and policy. It explores the major finding, already highlighted in the earlier Parts of the Framework, that the results of reliable policy evaluations are mixed, in terms of whether or not SME and entrepreneurship policy is judged to be effective and efficient across a range of objectives of the policy. While some evaluations estimate positive impacts, others find no impacts on key outcomes such as sales growth, employment growth or business survival, and others still find impacts on some targeted variables but not on others. The discussion considers why. For example, the probability of impact may be related to the contexts in which different programmes are delivered, the timing of the evaluation or the nature of the policy pursued.

A key distinction is made between “Hard” and “Soft” support programmes. Hard programmes involve an important element of financial support, whereas Soft programmes focus on aspects of training, advice and mentoring. A hypothesis is put forward that governments might be able to increase the overall impact of their SME and entrepreneurship policy portfolios by recognising that the current evidence base is pointing to clearer impacts from “Hard” than from “Soft” programmes. This is just a hypothesis at the current time, but points to the need for evaluation programmes that are able to make the comparisons between Hard and Soft policy intervention types and increase the evaluation evidence for Soft policies, for which current reliable evaluations raise doubts about effectiveness.

Part III also contains a section on the role of evaluation for government crisis response measures for SMEs and entrepreneurship in times of economic shock. It illustrates the issues through an exploration of recent government COVID-19 SME and entrepreneurship support interventions, showing how key issues in this Framework need to be given greater prominence, for example in terms of setting out clear objectives and expenditures and using counterfactual evaluation methods. It stresses the need to build evaluation arrangements into future government policy crisis response measures and proposes international co-operation in the impact evaluation of the COVID-19 support.

In more detail Part III covers:

- Problems with the focus and design of SME and entrepreneurship policies.

- Possible avenues for rebalancing SME and entrepreneurship policies to increase impact.
- Improvements needed in SME and entrepreneurship policy evaluation practice.
- Applying the lessons of this report to the evaluation of COVID-19 SME and entrepreneurship support and other policy responses to shocks.
- Conclusions from the Framework overall, including 13 key recommendations for SME and entrepreneurship policy makers.

Annex A: Explanation of the template for the 50 evaluation profiles

Annex A provides outlines the template used to prepare the profiles of the 50 evaluation cases presented in detail in the report, explaining the information sought and the rationale for it.

The template includes information relevant to judging the quality and reliability of each evaluation based on how far it is in line with key evaluation principles set out in this Framework, such as clearly specifying the objectives to be evaluated against, the impact measures used, whether both survivors and non-survivors are tracked and whether control groups are established at high levels of the Six Steps to Heaven tool. These measures of quality and reliability were used to select the 50 exemplar cases described in detail in Annex B.

Annex A also gives the details and rationale for other key information contained in the evaluation profiles, such as the programme area and the target populations.

Annex B: Methods and findings of the 50 individual evaluations

Annex B provides systematic information for each of the 50 reliable evaluations identified and reviewed for this Framework through a completed template for each evaluation study. Table 1 outlines the types of information provided for each evaluation.

Table 1. Information available for each reviewed evaluation study in Annex B

Basic information on the programme evaluated	Methodology of the evaluation	Findings	Utilisation of the evaluation
Dates of programme Objectives of programme Topic/policy area Target groups Whether the programme has a regional/local focus Programme expenditure	Source of evidence Impact variables used Whether survival is taken into account Data sources Step Level and Evaluation Quality Score Reliability comments	Key findings Macro impact of the programme	Policy impact of the evaluation

Table 2 classes the individual reliable evaluations by main category of policy intervention – access to finance, business advice, internationalisation etc. Further information is given for each evaluation on our categorisation of whether the intervention is largely “Hard” or “Soft”, and on our assessment of the level of reliability of the evaluation as judged by our view of its level on the Six Steps to Heaven tool, the clarity of objective setting of the policy evaluated and our Evaluation Quality Score (explained in Annex A). This is aimed at supporting readers in browsing for information by particular types of policy interventions and in assessing the evaluation methodology used by scanning across our reliability indicators.

The full information on each evaluation can be consulted in Annex B by using the evaluation reference number given in Table 2.

Table 2. The policy evaluations reported by main category of intervention

Evaluations of finance programmes						
Annex table reference	**Programme name**	**Country**	**Intervention type**	**Step Level**	**Objective Specification Score**	**Evaluation Quality Score**
B1	Direct financial assistance from the Australian government, including grants, subsidies and rebates	Australia	Hard	V	1	2
B2	Flemish government Entrepreneurship Agency´s programme	Belgium	Hard	VI	1	4
B3	Canada Small Business Financing Program (CSBFP)	Canada	Hard	V	2	3
B4	Subsidies allocated within the Czech Operational Programme for Enterprises and Innovation (OPEI)	Czech Republic	Hard	VI	1	4
B5	START and ZÁRUKA programmes	Czech Republic	Hard	VI	2	5
B6	Various grants managed by the Enterprise Estonia (EAS) government agency, i.e. start-up and development grants, research and development (R&D) grant, development of knowledge and skills grants, technology investment grants, export grants	Estonia	Hard	V	1	3
B7	Economic Development Operational Programme and Regional Development Operational Programmes from the EU Structural Funds and the Cohesion Fund	Hungary	Hard	VI	2	4
B8	Credit Guarantee Scheme Fondo Centrale di Garanzia (Central Guarantee Fund)	Italy	Hard	VI	2	4
B9	Japan's Emergency Credit Guarantee (ECG) Programme	Japan	Hard	VI	2	4
B10	Credit guarantee schemes provided by Korea Credit Guarantee Fund (KCGF) and the Korea Technology Credit Guarantee Fund (KOTEC)	Korea	Hard	VI	2	5
B11	Modernisation of agricultural holdings, rural development programme	Lithuania	Hard	VI	1	4
B12	Entrepreneurship support programmes administered by various government agencies and ministries	Mexico	Both	VI	2	3
B13	Slovenia's anti-crisis state aid programmes	Slovenia	Hard	VI	2	4
B14	Enterprise Finance Guarantee Scheme (EFG)	United Kingdom	Hard	VI	2	3
B15	Small Business Administration (SBA) loans (lending programmes 7a and 504)	United States	Hard	VI	2	4
Evaluations of business advice, coaching, mentoring and counselling programmes						
Annex table reference	**Programme name**	**Country**	**Intervention type**	**Step Level**	**Objective Setting Score**	**Evaluation Quality Score**
B16	Investment Network Programme administered by the Innovation Synergy Center	Canada	Soft	VI	2	5

B17	Chile Supplier Development Programme (Programa de Desarrollo de Proveedores - PDP) administered by the economic development agency CORFO	Chile	Soft	VI	2	4
B18	North Jutland Entrepreneurial Network (NiN) Programme	Denmark	Soft	VI	2	5
B19	Business coaching programme for new technology-based firms	Germany	Soft	VI	2	3
B20	Business counselling services for SMEs in Puebla region	Mexico	Soft	VI	2	4
B21	Business Link Programme	United Kingdom	Soft	VI	2	4
Evaluations of internationalisation programmes						
Annex table reference	**Programme name**	**Country**	**Intervention type**	**Step Level**	**Objective Setting Score**	**Evaluation Quality Score**
B22	Grants for industrial development allocated by the Industrial Development Agency (IDA) and by Forbairt	Ireland	Hard	VI	2	4
Evaluations of innovation programmes						
Annex table reference	**Programme name**	**Country**	**Intervention type**	**Step Level**	**Objective Setting Score**	**Evaluation Quality Score**
B23	Chile's CORFO Seed Capital Programme	Chile	Hard	V	2	2
B24	Finnish Governmental National Technology Agency's (TEKES) programme (Finnish acronym for young innovative growth companies)	Finland	Both	VI	2	4
B25	Polish In-Tech programme on science-industry collaboration, research and innovation, and product commercialisation	Poland	Hard	VI	2	4
B26	Portuguese Innovation Incentive System (SI Innovation), an instrument of the National Strategic Reference Framework (NSRF), included in the Operational Programme for Competitiveness Factors (COMPETE)	Portugal	Hard	V	2	3
B27	EBT and PYME participative loans (loan contracts) programmes allocated by the governmental agency Empresa Nacional de Innovacin (ENISA)	Spain	Hard	VI	2	5
B28	VINN NU (Win Now) programme operated by the Swedish Governmental Agency for Innovation Systems (VINNOVA)	Sweden	Hard	VI	3	5
B29	Swiss innovation policy administered by the Commission of Technology and Innovation (CTI)	Switzerland	Hard	VI	2	4
B30	The TUBITAK-TEYDEB public R&D programme administered by the Scientific and Technological Research Council of Türkiye (TUBITAK)	Türkiye	Hard	VI	2	4
B31	Business incubators in the United States	United States	Both	VI	2	5
Evaluations of enterprise skills and culture programmes						
Annex table reference	**Programme name**	**Country**	**Intervention type**	**Step Level**	**Objective Setting Score**	**Evaluation Quality Score**
B32	The Human Resources and Employment Operational Programme (HREOP)	Czech Republic	Soft	VI	2	4

B33	Junior Achievement Young Enterprise student mini-company (SMC) programme coordinated by the Jong Ondernemen Association	Netherlands	Soft	V	2	4
B34	Netherlands' Tax and Customs Administration (NTCA) tax training programme	Netherlands	Soft	VI	2	5
B35	Business Innovation and Skills (BIS) training programme	United Kingdom	Soft	VI	2	4
B36	Project Growing America through Entrepreneurship (GATE)	United States	Soft	VI	2	5
	Evaluations of inclusive entrepreneurship programmes					
Annex table reference	**Programme name**	**Country**	**Intervention type**	**Step Level**	**Objective Setting Score**	**Evaluation Quality Score**
B37	Micro-entrepreneurship Support Programme (MESP)	Chile	Both	VI	2	4
B38	ACCRE start up support for the unemployed (Aide aux chômeurs créant ou reprenant une entreprise)	France	Hard	VI	2	5
B39	German start-up subsidy programme Einstiegsgeld	Germany	Hard	VI	2	4
B40	German start-up subsidy (SUS) programme Gründungszuschuss	Germany	Hard	VI	2	4
B41	German start-up subsidy programme Überbrückungsgeld (Bridging Allowance)	Germany	Both	VI	2	5
B42	Start-up Programme Fare impresa (Doing Business)	Italy	Hard	VI	2	4
B43	Social security reduction programme for youth self-employment from unemployment	Spain	Hard	VI	2	5
B44	The Swedish Start-up Grants programme (SEP Programme)	Sweden	Hard	VI	2	4
	Regional and local evaluations					
Annex table reference	**Programme name**	**Country**	**Intervention type**	**Step Level**	**Objective Setting Score**	**Evaluation Quality Score**
B45	Pre-start support via a Funded Business Development Centre (PFBDC)	Spain	Both	VI	2	4
	Evaluations of support programmes in areas of disadvantage					
Annex table reference	**Programme name**	**Country**	**Intervention type**	**Step Level**	**Objective Setting Score**	**Evaluation Quality Score**
B46	Improving regional economic structures (Verbesserung der regionalen Wirtschaftsstruktur - GRW)	Germany	Hard	VI	2	4
B47	Regional policy determined by the Law 488/1992 (L.488)	Italy	Hard	V	2	4
B48	Regional policy determined by the Law 488/1992 (L.488)	Italy	Hard	VI	2	4
B49	Regional policy determined by the Law 488/1992 (L.488)	Italy	Hard	VI	2	4
B50	Regional Selective Assistance (RSA) Programme	United Kingdom	Hard	VI	2	4

Annex C: Examples of other relevant evaluation studies not included in the report

Annex C provides a list of 25 other relevant evaluation studies that are not included in the report, with information on the country, topic, year of the study and source of evidence. These are high-quality evaluations that could have been selected for inclusion, but were excluded on grounds of achieving diversity in the examples provided. Further high-quality evaluations could also have been listed and are available in the literature.

Annex D: Brief description of included evaluation methods

Annex D provides a table with information on key evaluation methods used in many of the selected evaluations. It provides a high-level overview of the methodological approaches and references to further reading.

Executive Summary

The issue

Government accountability bodies in various OECD countries point to a dearth of reliable evidence on the impacts of SME and entrepreneurship policy. Either evaluations have not been undertaken or their methodologies have not been of high enough standard. However, SME and entrepreneurship policy is a youthful field where questions are raised about likely effectiveness, to do for example with low survivability of start-ups and low motivations for SME growth.

The response must be to develop systematic, high-quality evaluation in the area. This requires taking a number of steps – including establishing clear objectives for policies and programmes at the outset, measuring changes on a common set of core impact indicators alongside possible additional indicators to measure specifics, setting up control and treatment groups, and tracking survivors and non-survivors.

Reliable evaluation is certainly achievable in SME and entrepreneurship policy, and there is no reason not to develop it, particularly when taking into account recent improvements in data and analytical methods. For example, some governments now associate single numerical identifiers with individual entrepreneurs and small businesses, facilitating control group studies. More sophisticated statistical techniques such as propensity score matching have diffused, and Randomised Control Trial (RCT) studies are becoming common.

Evidence can also be drawn from those meta-evaluations and individual high-quality evaluations that do exist. Adopting an international lens to this offers the prospect of learning from a critical mass of evaluation evidence.

The contribution of this report

This Framework represents the main OECD guidance on SME and entrepreneurship policy evaluation. It highlights the foundations of systematic and reliable impact evaluation, and it demonstrates that reliable evaluation is achievable in the field by offering the examples of 50 reliable evaluations across different OECD countries and SME and entrepreneurship policy areas. It reviews the evidence of existing meta-evaluations in the field, and profiles the methodologies and findings of the 50 individual high-quality evaluation studies.

Overall, the report offers information on the key features of evaluation, the lack of reliable evaluation evidence, the mixed findings of reliable evaluations, and reasons why reliable evaluations are delivering mixed findings.

It examines what needs to be improved in evaluation practice, such as exploiting new techniques and data, specifying objectives, and assessing impacts against expenditures. It also explores what evaluation evidence is suggesting may be wrong with some aspects of SME and entrepreneurship policy, such as its targeting and delivery and the mix of policy interventions used.

The report also explores the role of evaluation for steering government response measures to major economic shocks, taking the example of recent government COVID-19 crisis response measures, and asks what could be done better on evaluation.

Key findings and messages

Improving evaluation practice

The major message of the report is that current weaknesses in the practice of SME and entrepreneurship policy evaluation need to be addressed. This can be achieved by making better use of existing data within government for evaluation purposes and adopting more sophisticated evaluation techniques using control groups. Work is also needed to specify the objectives and targets of policy in advance of evaluation, to benchmark programmes against others based on their evaluation results, and to evaluate the impacts of macro interventions such as changes in the tax and regulatory regime as well as expenditure programmes aimed directly at specific groups SMEs and entrepreneurs. Evaluation evidence must also frame future policy decisions.

The implications of mixed findings from evaluation evidence

Although the evidence shows that many of the policy interventions worked, a smaller number did not. In particular, 3 of 11 evaluations of purely “Soft” programmes (based on training, advice, mentoring etc.) reported “no/negative” outcomes, compared with only 2 out of 33 “Hard” programmes (with a significant financial aspect of the package). While the numbers are not sufficiently high to make any conclusion, this indicates the need for more comparative assessment of the impact of “Soft” and “Hard” policies. Furthermore, policy success may be affected by the diversity of SMEs and entrepreneurs. For example, if a programme is not selective of firms with growth and survival prospects, or selects poorly, its impact is likely to be weak.

Evaluation and COVID-19 policy support measures

Governments internationally introduced substantial temporary support for SMEs and entrepreneurs to weather the COVID-19 crisis from the early months of 2020. However, there were evaluation weaknesses which can be addressed in forthcoming evaluation work or in preparing interventions for future economic shocks. The key issues are lack of clear specification of policy objectives, lack of information on expenditures, and lack of generalised impact evaluations.

Recommendations

The report makes the following recommendations:

1. Governments should specify in advance the Objectives and Targets for each policy measure introduced.
2. Three core metrics – Sales, Employment and Survival – should be specified and assessed in all evaluations. These can be complemented with additional measures for other Objectives, where targeted, such as environmental and social benefits.
3. Expenditure data should be made available to evaluators for each policy measure to facilitate cost-effectiveness assessments.
4. Governments should establish a central monitoring and evaluation unit and a co-ordination process for the monitoring and evaluation of SME and entrepreneurship policy across government ministries and bodies.

5. Every three years, all major SME and entrepreneurship programmes should be the subject of a reliable evaluation, defined as a minimum of Step V, only the very “short-lifers” being excluded.
6. Governments should look carefully, using at least Step V methods, at the impact of their existing, and any new proposed, “Soft” programmes.
7. Governments should review the role played by “Macro” policies.
8. Evaluations should provide the evidence for making decisions on the scale and nature of selective support.
9. Evaluations should identify exceptional performers and the role such firms have in reaching a judgment on the overall effectiveness of a programme.
10. Evaluations should systematically include the performance of non-surviving SMEs and start-ups in their assessments of treatment and control group performance.
11. Governments should investigate the use of the data they collect for tax and other purposes with a view to making it more widely available to those conducting policy evaluations.
12. Lessons from reliable evaluations should be shared between countries, with the OECD CSMEE being an ideal vehicle for facilitating this exchange.
13. Internationally-co-ordinated policy evaluation should be undertaken on the impact of COVID-19 SME and entrepreneurship policy responses.

Part I: Evaluation principles and state of evaluation practice

1 What is evaluation and why do it?

This chapter presents the case for more widespread and reliable evaluation in the field of SME and entrepreneurship policy. It begins by providing the definition of evaluation developed by (Papaconstantinou and Polt, 1997[1]) and adopted in the 2007 edition of the OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes. The various components of this definition are discussed, including the need to: consider evaluation as a process rather than a one-off activity; determine impacts as systematically and objectively as possible; consider the cost-effectiveness with which programme objectives are met; and analyse the implementation and administrative management of the policy or programme. The chapter then underlines the key purposes of evaluation in terms of justifying expenditure of public resources and obtaining information for policy improvement.

1.1. What is evaluation?

The definition of evaluation used in this edition of the Framework continues to be that used by (Papaconstantinou and Polt, 1997[1]):

> *"Evaluation refers to a process that seeks to determine as systematically and objectively as possible the relevance, efficiency and effectiveness of an activity in terms of its objectives, including the analysis of the implementation and administrative management of such activity."*

This definition has four distinct elements, each of which is now discussed in turn.

"Evaluation refers to a process"

The point made at the outset of the definition is that evaluation should be seen as a continuous or semi-continuous process and not as a "one-off" activity. So, rather than evaluation being limited to reviewing a completed programme to assess whether it should be closed, expanded or modified, the (Papaconstantinou and Polt, 1997[1]) definition emphasises its continuous nature in the policy process, where evaluation has a key role to play in each of the main policy stages below:

- Prior to a programme being announced.
- Whilst a programme is in operation.
- When reaching a judgement on whether or not a programme has been effective.
- When programmes with similar objectives to others that have already been implemented are under consideration in future.

The role of evaluation is now discussed for each stage in turn.

Prior to a programme being announced

A first evaluation-related task for policymakers prior to a programme being announced is the formulation of Objectives and their associated Targets. These will enable evaluation to make assessments against previously fixed milestones. The Objectives and Targets help all stakeholders (politicians, programme managers, support agencies, beneficiary firms and entrepreneurs etc.) to be clear about what the programme seeks to achieve. They also help to ensure that the outcome claimed for a programme by an evaluation is related to what it set out to do – rather than allowing any change in related areas to be claimed as an impact of the programme.

Broad and vague Objectives, such as "making the country more entrepreneurial," or "the creation of an enterprise culture" are inappropriate for impact evaluation. This is because these phrases can be interpreted in many ways such as: more business creations; more high-growth firms; more innovators; more social enterprises; a stronger international focus etc.

Instead, the Objectives have to be specified in terms of identifiable outcomes that are expected to change as a result of the policy. Examples of more appropriate Objectives might be:

- To raise rates of new business creation by the unemployed or by disadvantaged groups.
- To increase the proportion of SMEs which grow rapidly.
- To increase the total number of social enterprises in the economy.
- To promote international sales by SMEs by subsidising their participation at trade fairs.

Policymakers also need to specify more detailed Targets before the commencement of a programme. Here, the policymaker "converts" the specified Objectives to Targets by linking them to a statement on both their magnitude and their timescale. Examples of "converting" the above Objectives into Targets are:

- To raise rates of new business creation by the unemployed or by disadvantaged groups by 20% over five years.
- To increase the proportion of SMEs defined as high-growth SMEs from 3% to 4% over five years.
- To raise the number of social enterprises in the economy by 50% over a decade.
- For subsidised participation of SMEs at trade fairs to lead to increased overseas sales by these SMEs of 100% in the following 12 months.

A related task is to specify the form of evidence which will be used in an evaluation so as to assess whether the Objectives and Targets have been met. For this, the emphasis should be on outcome evidence.

In contrast, input-based evidence is insufficient. Two instances of input-based evidence are shown below:

- To increase the number of SMEs participating in training programmes.
- To increase the % of SMEs satisfied with business advice programmes.

These types of measures can provide policymakers with useful information on programme relevance and management performance, but are only crude measures even in these respects.

The first type of measure focuses on a programme's take-up, market penetration rate and continued participation rate. However, these are influenced by a range of factors aside from the relevance of the programme to solving a problem or how well it is managed, such as the scale of the subsidy[1], awareness by SMEs of the existence of the subsidy and perhaps SMEs' experience of previous programmes. The second type of measure focuses on the satisfaction reported by programme participants. This is also an unreliable indicator of programme relevance and management quality because these measures rely on, possibly biased, samples of respondents.

Most importantly, input-based measures in themselves say nothing about the impact of the support provided on SME and entrepreneurship performance. Participation in the programme and the satisfaction reported by the participant may be unrelated to any identifiable changes in the firms or entrepreneurs on which support is focused. So, for example, the number of firms participating in training programmes might increase, but with no economic consequences for participating enterprises if the training is ineffective – and yet assessing effectiveness is the core issue in impact evaluation. Equally, Research and Development (R&D) tax credits may mean that enterprises undertake more R&D. However, an impact evaluation has to identify if the additional R&D enhanced the performance of the enterprises or generated wider social benefits. For all these reasons, reliable evaluation requires Objectives to be specified as outcomes such as the survival of the participant firms or changes in their levels of employment or output. We develop this further below.

This Framework does favour the collection of some input-based data alongside output data. It has the merit of being easy and relatively cheap to acquire. It also can be used to improve the delivery of programmes, once they become operational. Finally, as we note later, it is often used as an input into evaluation. Nevertheless, for the reasons outlined above, input data can only play a modest role in impact evaluation.

Prior to a programme being announced, Objectives and output-based Targets have to be agreed and specified in a form that makes them potentially open to impact evaluation. This provides the basis for reaching a reliable judgement on programme effectiveness.

Whilst a programme is in operation

An important part of the evaluation process is to collect and review monitoring data over the course of implementation of a programme. Such data can include the characteristics of the individuals and businesses that applied for and participated in the programme. They can also include feedback from participants and from those delivering the programme.

Monitoring information can help ensure that a programme is delivered to the intended recipients in an efficient manner. For example, if it becomes clear that take-up is either low, or focused on the wrong groups, various strategies, such as higher subsidies or enhanced marketing can help to re-focus the programme.

However, a second function of monitoring data, with particular relevance for impact evaluation, is that the characteristics of participants, as established by programme monitoring, can be used to create a control group of otherwise similar individuals/businesses that did not participate in the programme. These can be used as the counterfactual in an impact evaluation when a comparison is made between recipients and otherwise similar non-recipients.[2] In programmes where not all applicants are successful, or where some businesses participate to a greater extent than others, the non-participant or low level participant businesses can, with care, also be used as the counterfactual.[3]

Reaching a judgement on whether or not the programme has been effective

This role of evaluation in the policy-making process is the widely-accepted contribution expected of an impact evaluation. This role is discussed in more depth when the concepts of "systematically and objectively" from our evaluation definition are set out in Section 1.2 below.

When programmes with similar objectives to others that have already been implemented are under consideration in the future

This function of evaluation is very important because SME and entrepreneurship programmes with very similar stated objectives, and very similar modes of delivery, are found in different countries, and even within the same country some years apart. Ideally, when a new programme is under review, for whatever reason, evaluations of similar programmes in other countries, or in earlier time periods, should be used to learn lessons on how such a programme can be designed and delivered effectively.

The number of broadly similar programmes across countries has multiplied in recent years, which increases the scope to learn from the evaluations of other programmes when planning a new intervention.

One option is to access individual evaluations that have been undertaken in the programme area and review the relevant findings. However, the exercise of comparison of results is facilitated by the fact that "overviews" or meta-evaluations are increasingly common in the area of SME and entrepreneurship policy.[4] Some reviews have focussed on "single issue" policies such as science parks or support for youth enterprise, whereas others have examined a wide range of SME and entrepreneurship policies. Chapter 3 discusses the results of some of these evaluations.

Nevertheless, it must be recognised that there is often diversity amongst programmes even within the same overall policy categories, which means that comparisons across individual evaluations may not always be comparing like with like. Furthermore, there may be differences in the reliability of the evaluation methods used for the different programmes and this could corrupt the conclusions. In particular, there must be doubts about the reliability of evaluations undertaken without control groups and at low steps in the Six Steps to Heaven Framework.

For this reason, conclusions reached on programme effectiveness from individual and meta-evaluations have to be carefully interpreted when making inputs to decision-making on new initiatives, with particular regard to the reliability of the evaluation and to the features of the programmes implemented.

Our approach is to focus heavily upon those evaluations that are the most sophisticated, and hence the most reliable. This means less credence is given, for example, to studies with an exclusive reliance on the views of small samples of programme recipients or of managers of the programmes.

"Evaluation seeks to determine as systematically and objectively as possible"

OECD 2007 argued that a "good" evaluation was one that was able to determine, as systematically and objectively as possible, the impact of participating in a public programme on targeted SMEs and entrepreneurs. Good evaluations minimised the risk of bias by comparing the performance of the treatment group with otherwise similar non-recipients. This provided policymakers with the confidence that the findings could be taken as reliable.

The sophistication/reliability of evaluations was categorised as six steps, with Step I being the least, and Step VI being the most, sophisticated, and with a distinction being made between monitoring and evaluation. It argued that monitoring, Steps I to III, was the collection of information from the recipients of the programme or those delivering it. In contrast, the key element of evaluation was a comparison with a control group of firms or entrepreneurs/potential entrepreneurs that did not participate in the programme, but were identical to the recipients in all other respects.

It was inferred that the impact of the programme was the difference between the performance over time of the recipients, or treatment group, and the control group. Evaluation therefore applies only when there is a valid control group.

The Box below sets out all six steps, distinguishing between monitoring and evaluation. In 2007, SME and entrepreneurship policy evaluations based on Randomised Control Trials (RCTs) were rare, and no examples were included in the volume. However, these have become more common in the field over the last 15 years, and are now added as an example of STEP VI evaluations that in principal do not suffer from selection bias.

Box 1.1. Six Steps to Heaven: Methods for assessing the impact of SME and entrepreneurship policy

Monitoring

STEP I - Take up of a programme

STEP II - Recipients opinions

STEP III - Recipients' views of the difference made by the assistance

Evaluation

STEP IV - Comparison of the performance of "Assisted" with "Typical"' firms

STEP V - Comparison with "Match" firms

STEP VI - Taking account of selection bias – through statistical procedures or use of Randomised Control Trials (RCTs)

Source: Adapted from (OECD, 2007[2])

"The relevance, efficiency and effectiveness of an activity in terms of its objectives"

This phrase highlights that impact evaluations not only have to provide guidance on whether policy objectives are met, but also whether they are met in a cost-effective manner.

For example, assume some years previously a decision was made that new and small firms should be able to access publicly-funded business advice and that the impact of this programme should be evaluated. The purpose of the evaluation should be first, to determine whether participating firms out-performed – according to prior agreed metrics – otherwise similar firms that did not receive this advice. Second, that evidence should, in conjunction with the programme budget, be used to estimate the cost-effectiveness of the programme. Thirdly these findings should be placed alongside those of other relevant and comparable policy options.

To continue with the example, the purpose of business advice might be to lead to additional job creation amongst the recipients of the advice and quantified in terms of "cost per job" created. If evaluations of other SME and entrepreneurship programmes have been conducted, this enables policymakers to compare the efficiency and effectiveness of business advice – in terms of cost per job – with these other policy options.

"Including the analysis of the implementation and administrative management of such activity"

In recent years several studies of entrepreneurship and SME policy (Arshed, Carter and Mason, 2014[3]); (Jurado and Battisti, 2019[4]); (Kitching, 2019[5]) have argued that policy outcomes can be strongly influenced by the role of key players – normally public servants – in the details of the formulation and implementation of policy. The role played by these "institutional entrepreneurs" therefore needs to be identified in any policy evaluation because what might appear to be "administrative" decisions can powerfully change the outcomes of a policy[5].

As an example, many governments have loan guarantee programmes that are intended to ensure that risky, but worthy, SMEs are able to obtain loan funding. However, although the objective is

simple, these programmes have terms and conditions and modes of delivery that vary considerably[6]. These include the percentage of the loan that is guaranteed; the interest rates payable; the maximum size of the loan; and the sectoral, legal form and geographical restrictions on eligibility. Frequently, the setting of these terms and conditions is seen as administrative, rather than strategic or political, decisions appropriately made by "institutional entrepreneurs". Yet these, apparently minor, variations in eligibility can make a considerable difference to take-up rates, and hence to the success or otherwise of a loan guarantee programme. For these reasons it is important to understand the decisions made on policy design and implementation, the key influences upon it, and the impacts of any adjustments, as part of an evaluation[7].

1.2. Why do evaluations?

The central justification for undertaking evaluations of SME and entrepreneurship policy was made more than thirty years ago when such policies were in their infancy.

A conference, organised by the European Commission's DG V in Brussels in March 1988 concluded, following a review of employment trends and policy initiatives:

> *"A great deal of emphasis was placed on the fact that the effectiveness of policy and financial intervention must be assessed, both because the means are limited and in order to improve targeting. The European Community does not have money to burn and has to convince the Member States of the effectiveness of any project before any allocations can be made." (European Commission, 1988[6]).*

This case remains unchanged. It is that governments have a responsibility to their taxpayers to ensure, as a minimum, that the funds used achieve the objectives set out for them. The case made here is that this can only be achieved through appropriate evaluation.

This justification is particularly important in the case of SME and entrepreneurship policy because, not only are the sums of public money considerable but also the scale and delivery of this budget can be opaque. This is because expenditure at a country level is incurred by a diverse range of actors. These include virtually every ministry or department of both national and regional government. In many countries it also includes funding from international organisations such as the European Union. Decisions on priorities for expenditure are taken by individual ministries of government and so inevitably reflect ministry priorities. This risks an approach which lacks cohesion across government in the absence of co-ordination mechanisms.

An example of the scale and diversity of SME and entrepreneurship policy expenditure is provided in the Box below.

Box 1.2. Scale and diversity of SME and entrepreneurship policy expenditure in the United Kingdom and Sweden

The UK was one of the first governments in the world to estimate the total scale of taxpayer support for small and medium-sized enterprises:

- Aggregate expenditure was between GBP 8 billion (in 2001/2002) and GBP 10 billion (in 2003/2004). At that time expenditure on both the police service and on the universities was slightly lower, at approximately GBP 7 billion.
- The expenditure came from virtually all departments of government. The main organisation within government responsible for SMEs, the Small Business Service, was responsible for only about 4% of expenditure in 2001/2002 and 2.5% in 2003/2004.

In 2014, the results from a broadly comparable study undertaken for Sweden were published. This concluded:

- Aggregate SME and entrepreneurship policy expenditure was SKK 46.5 billion in 2011.
- Per capita expenditure in Sweden was broadly comparable to that of the UK.
- The Industry Department, although having nominal responsibility for SMEs, was a modest spender compared with the Finance Department.
- The dominant form of expenditure was the provision of financial tax reliefs, primarily to existing SMEs.
- This mix of expenditure was out of line with policy statements emphasising the creation of an environment promoting the creation of new enterprises – particularly in the high tech sectors, or amongst "disadvantaged" groups.

Source: (Lundström et al., 2014[7])

Information on public expenditure on SME and entrepreneurship policy enables linking of evaluation evidence on policy impact to the scale of the policy expenditures made, and hence assessments of the cost-effectiveness of policy interventions. Documenting the scale and components of all public SME and entrepreneurship policy expenditure provides a context for assessments of the SME and entrepreneurship policy mix. For example, expenditure information combined with policy impact evidence would provide an input as to whether, for example, the provision of business advice is more cost-effective in raising SME employment than lowering corporation tax.

Making decisions about the relative cost-effectiveness of different interventions requires co-ordination of information and evaluation efforts across government. This needs to involve all the ministries and agencies of central government with SME and entrepreneurship policy expenditures. A co-ordination group for SME and entrepreneurship policy evaluation could be set up with a focal point from the relevant ministries (finance, economy, employment etc.) with significant policy expenditures impacting on SMEs and entrepreneurship. Their work could be led by a central monitoring and evaluation unit in the ministry with lead responsibility for SME and entrepreneurship policy. They would promote evaluation in their ministries and agencies and share information on evaluation methods and findings. This would help to make decisions on future policies making use of evaluation findings.

Recommendation: Governments should establish a central monitoring and evaluation unit and a co-ordination process for the monitoring and evaluation of SME and entrepreneurship policy across government ministries and bodies.

In addition to justifying value for public expenditure, evaluation evidence is critical in helping policymakers learn how to strengthen the relevance, effectiveness and efficiency of policy by identifying which types of policy work well and not well in which contexts and with which designs and delivery methods. Again, the greatest benefits are achieved when the evaluation is undertaken comprehensively, across many policy interventions and the lessons are drawn from them.

References

Arshed, N., S. Carter and C. Mason (2014), "The ineffectiveness of entrepreneurship policy: is policy formulation to blame?", *Small Business Economics*, Vol. 43/3, https://doi.org/10.1007/s11187-014-9554-8. [3]

Brault, J. and S. Signore (2019), "The real effects of EU loan guarantee schemes for SMEs: A pan-European assessment", *EIF working paper No. 2019/56*. [13]

Caselli, S. et al. (2019), "Public Credit Guarantee Schemes and SMEs' Profitability: Evidence from Italy", *Journal of Small Business Management*, Vol. 57/S2, https://doi.org/10.1111/jsbm.12509. [9]

Cowling, M. (2010), *Economic Evaluation of the Small Firms Loan Guarantee (SFLG) Scheme*, Institute for Employment Studies. [14]

European Commission (1988), *Employment creation in Small Firms: Trends and New Developments*. [6]

Georgiadis, A. and C. Pitelis (2016), "The Impact of Employees' and Managers' Training on the Performance of Small- and Medium-Sized Enterprises: Evidence from a Randomized Natural Experiment in the UK Service Sector", *British Journal of Industrial Relations*, Vol. 54/2, https://doi.org/10.1111/bjir.12094. [17]

Jurado, T. and M. Battisti (2019), "The evolution of SME policy: the case of New Zealand", *Regional Studies, Regional Science*. [4]

Kitching, J. (2019), "Regulatory reform as risk management: Why governments redesign micro company legal obligations", *International Small Business Journal: Researching Entrepreneurship*, Vol. 37/4, https://doi.org/10.1177/0266242618823409. [5]

Lecluyse, L., M. Knockaert and A. Spithoven (2019), "The contribution of science parks: a literature review and future research agenda", *Journal of Technology Transfer*, Vol. 44/2, https://doi.org/10.1007/s10961-018-09712-x. [16]

Lundström, A. et al. (2014), "Measuring the Costs and Coverage of SME and Entrepreneurship Policy: A Pioneering Study", *Entrepreneurship: Theory and Practice*, Vol. 38/4, https://doi.org/10.1111/etap.12037. [7]

Martín-García, R. and J. Morán Santor (2021), "Public guarantees: a countercyclical instrument for SME growth. Evidence from the Spanish Region of Madrid", *Small Business Economics*, Vol. 56/1, https://doi.org/10.1007/s11187-019-00214-0. [8]

OECD (2007), *OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes*, OECD Publishing, Paris, https://doi.org/10.1787/9789264040090-en. [2]

Papaconstantinou, G. and W. Polt (1997), *Policy evaluation in innovation and technology: An Overview, in Policy Evaluation in Innovation and Technology: Towards Best Practices*, OECD, Paris. [1]

Riding, A., J. Madill and G. Haines (2007), "Incrementality of SME loan guarantees", *Small Business Economics*, Vol. 29/1-2, https://doi.org/10.1007/s11187-005-4411-4. [15]

Rotger, G., M. Gørtz and D. Storey (2012), "Assessing the effectiveness of guided preparation for new venture creation and performance: Theory and practice", *Journal of Business Venturing*, Vol. 27/4, https://doi.org/10.1016/j.jbusvent.2012.01.003. [10]

Sara, R. (2016), *Start-Up Support for Young People in the EU: From Implementation to Evaluation*, Eurofound. [11]

Storey, D. (1994), *"Understanding the Small Business Sector", Routledge, London*. [12]

Notes

[1] See a North Jutland case in Denmark examined by (Rotger, Gørtz and Storey, 2012[10]).

[2] If the programme is evaluated using Randomised Control Trials (RCTs) then the control group is normally established prior to, rather than after, the programme has become operational. A notable exception is (Georgiadis and Pitelis, 2016[17]), where demand for the programme was considerably higher than expected and so support was randomly "rationed".

[3] As we show later, the assumption that non-applicants or rejected applicants are always a suitable control group is open to question.

[4] For example, policy-makers seeking evidence of the impact of science parks can turn to a review of 175 journal articles evaluating science parks by (Lecluyse, Knockaert and Spithoven, 2019[16]). An equally authoritative review of start-up support for young people in the European Union is provided by (Sara, 2016[11]). They identified 34 broadly similar programmes spanning virtually all EU countries.

[5] For example (Kitching, 2019[5]) examines UK policies to reduce the disclosure requirements of publicly available accounts of SMEs. He questions whether, despite having a clear policy to "think small first," the interests of SMEs actually took precedence over those of large enterprises. He concludes that, although these policies were intended to reduce the bureaucratic burdens on SMEs, the prime beneficiaries were actually larger enterprises.

[6] For reviews of guarantee programmes see (Martín-García and Morán Santor, 2021[8]) for Spain, (Caselli et al., 2019[9]) for Italy; (Brault and Signore, 2019[13]) for the EU, (Cowling, 2010[14]) for the UK and (Riding, Madill and Haines, 2007[15]) for Canada.

[7] The UK Loan Guarantee Scheme (LGS) provides an example. The LGS varied both the percentage of the loan guaranteed and the interest rate charged. Raising the interest rate premium from 3% to 5% reduced the number of loans from just over 4 000 per year to almost zero within two years. When the premium was lowered to 2.5% loan numbers returned to previous levels within three years (Storey, 1994[12]).

2 The state of play in SME and entrepreneurship policy evaluation

This chapter reviews the state of play in SME and entrepreneurship policy evaluation. It begins by referring to the dearth of reliable evaluation evidence in SME and entrepreneurship policy. It then highlights how the evidence from reliable evaluations is offering mixed messages on the effectiveness of SME and entrepreneurship policies. The chapter goes on to discuss common broad problems in the generation of useful evaluation evidence for policy development. These are: failure to appropriately specify target groups when starting a programme; lack of reflection on the potential of alternative policies for achieving the same goals; lack of consideration of the impact of the timing of evaluations; and insufficient account taken of changes to the political context. Finally, the chapter draws out lessons and issues for evaluation practice.

We begin by reviewing the current "state of play" of our knowledge of the impact of public policy on SMEs and entrepreneurship. We conclude that, despite the scale of SME and entrepreneurship policy expenditure and long-established calls for careful evaluations of its impact, not only are SME and entrepreneurship evaluations undertaken less frequently than in other areas of public policy, but many of those undertaken are of lower quality and hence are less reliable. In addition, we show that where high-quality SME and entrepreneurship evaluations have been undertaken, the results are "mixed" in terms of their findings in terms of whether or not the policies have any impact or have an overwhelmingly positive impact across relevant outcomes.

We then ask why there is limited reliable evaluation evidence to draw on, and whether the reluctance to evaluate can be explained by the technical and political complexities of the issues addressed. We identify a series of broad challenges for instilling reliable evaluation of SME and entrepreneurship policies, alongside the technical issues of establishing control groups, which are discussed elsewhere in this Framework. We conclude that, although the complexities are real, they are far from insurmountable. In contrast, the benefits to SMEs and taxpayers of placing evaluation at the heart of the policy-making process are considerable and are now more easily attained because of recent data improvements and exemplar cases.

2.1. The infrequency and low quality of evaluation

The United States Government Accountability Office (GAO) report for 2012 (U.S. Government Accountability Office, 2012[1]) reviewed 53 SME and entrepreneurship programmes in four different agencies with an aggregate budget of USD 2.6 billion. It found:

> *"for 39 of the 53 programs, the four agencies have either never conducted a performance evaluation or have conducted only one in the past decade. For example, while SBA (Small Business Administration) has conducted recent periodic reviews of 3 of its 10 programs that provide technical assistance, the agency has not reviewed its other 9 financial assistance and government contracting programs on any regular basis" (ibid. p56).*

Infrequent evaluation of SME and entrepreneurship policy is a common problem internationally.

Furthermore, SME and entrepreneurship evaluations are often of poor quality, and hence lack reliability. For example, a report for the UK National Audit Office (Gibbons, McNally and Overman, 2013[2]), identified 35 UK Government evaluations spanning the policy areas of labour market activation, business support, education and spatial policy. They conclude:

> *"none of the business support evaluations provided **convincing evidence**[1] of policy impact. In contrast, 6 out of 9 education reports and 6 (arguably 7) of the 10 labour market reports were of a sufficient standard to have some confidence in the impacts attributed to policy"*[2].

On the international level, the What Works Centre for Local Economic Growth at the London School of Economics reviewed 690 (small) business support programmes across OECD countries (What Works Centre for Local Economic Growth, 2016[3]). It found that only 23 of the evaluations, or 3.3%, met the Centre's minimum standards of reliability.[3]

This Framework therefore recommends that:

> Recommendation: Every three years, all major SME and entrepreneurship programmes should be the subject of a reliable

evaluation, defined as a minimum of Step V, only the very "short-lifers" being excluded.

The recommended periodicity is based on evidence that the impacts of business support on SMEs and entrepreneurship tend to occur within three years of the intervention (Drews and Hart, 2015[4]). This evaluation regularity should be in line with reasonable proportionality objectives, i.e. evaluation costs as a share of programme costs. (OECD, 2007[5]) recommended an evaluation budget of 1% of programme costs. This is still the target of this Framework. It can stimulate good evaluation outcomes, particularly given reduced evaluation costs as data availability has improved, for example through more accessible official government data.

2.2. The "mixed" evidence on impact

In addition to limited numbers of reliable evaluations, those evaluations that are available internationally provide unclear evidence on the impact of SME and entrepreneurship policies. Whereas some programme evaluations show effectiveness in meeting objectives, others indicate no programme impact on core policy objectives. This is shown, for example, by the variety of impact findings from the 50 evaluation cases featured in this Framework. Similarly, the extensive international meta review referred to above by the What Works Centre (What Works Centre for Local Economic Growth, 2016[3]) found that:

> *"Business support and advice had a positive impact on at least one business outcome in 14 out of 23 evaluations. Five evaluations found that business advice didn't work in any outcome evaluated, and one study found negative effects against the stated objective, although other positive effects were also recorded.*
>
> *Business advice programmes show largely mixed results across the board. The nine evaluations looking at productivity show consistently mixed results, with one third of studies finding positive results, just over one third of studies finding no impacts, and just under one third of studies finding mixed results. Of the 17 studies that look at employment outcomes, only six report positive programme effects, whilst eight evaluations report zero effects.* ***For the two studies that look at employment duration or small business survival, results are substantially worse, with no positive findings***[4]*. Results for sales and turnover outcomes are somewhat better than for employment and productivity, with eight of 16 studies reporting positive results."*

2.3. Is the current evaluation evidence base fit for purpose?

In part because the evaluation findings are so mixed, there is a powerful body of both policy and academic opinion that now asks whether public policy is currently combining impact on SMEs and entrepreneurship with value for money for the taxpayer.

More widespread reliable evaluation evidence is needed to respond to these concerns and to identify what works and what does not. Here we consider four reasons why the current evaluation evidence base is not fit for the purpose of steering policy to the most impactful measures. It sets aside the question of the need for more reliable control-group based methods, which is dealt with elsewhere.

Problem 1: The Objectives and Targets of policy interventions are either not specified, or are specified in such a way that makes an assessment of policy impact difficult or impossible

The impact of a programme needs to be established with reference to its Objectives. This cannot be achieved where the objectives are not specified. Where Objectives are set they are often too vague or distant from the intervention to serve as the impact assessment yardsticks, such as improve entrepreneurial culture or increase participation of the population in entrepreneurship. Clear, quantifiable objectives are needed that are tied back to the outcomes of the programme.

The problem is clearly demonstrated by (Sara, 2016[6]) in their review of start-up support for young people in the European Union. They identified 66 publicly funded start-up support measures, 34 of which specifically targeted young people, with 21 being fully documented.

They say:

> *"Most of the start-up support measures reviewed do not have specific and measurable objectives or targets that could be used to guide the evaluative research. Such targets are often inserted afterwards by the researchers as part of the evaluation exercise. The majority of measures specify higher-level aims, focused, for example, on enterprise development and increasing employability." p43*

Most surprisingly, this absence of Objectives and Targets is even found for nine out of the ten evaluations that were evaluated using the counterfactual design – Steps IV to VI of our Six Steps to Heaven framework. The single exception was the German Start-Up Coaching programme.[5]

This absence of identifiable Objectives and Targets for SME and entrepreneurship policies is noted elsewhere. For example, in their evaluation of Almi business advice programmes in Sweden, (Widerstedt and Månsson, 2015[7]) say:

> *"The small scale intervention was particularly difficult to evaluate. The objective of the intervention was unclear, both from a policy standpoint and from the perspective of the firms. The fuzzy intervention logic, unspecified target group and unknown intervention objectives creates an expectation of very small impacts on growth."*

Our review in Part II points to this being a widespread characteristic of SME and entrepreneurship policies in many countries.

The Objectives and Targets for a programme cannot just be "anything you happen to hit"[6]. A policy intervention should be introduced to address a specific problem and that problem has to be specified in order to justify the use of taxpayers' money on the intervention. The evaluation should establish its impact with respect to the problem identified. If the programme does not "solve" a specified problem but addresses – presumably by chance since that was not the intention – a different "problem" then that would of course be helpful but the original problem remains. However, it is more likely that if the programme does not solve the originally specified problem then either it doesn't solve any problem or it solves an unimportant problem (or else it would have been specified when the programme was introduced). The key issue is that **only a good quality evaluation can pick up these links, and this is only possible when Objectives are clearly specified up-front, when the programme is initiated**.

The specification of Objectives (e.g. stimulate business start-ups by young people) and Targets (e.g. create 1000 new youth-run businesses) for SME and entrepreneurship policy is particularly important given that the impacts of policy may vary strongly according to the types of entrepreneurs or SMEs it aims to support (innovation-oriented start-ups, existing SMEs, micro enterprises, entrepreneurs from disadvantaged populations etc.).

One of the most telling recent criticisms of entrepreneurship policies, as they currently stand, is that they are not sufficiently targeted on addressing obstacles hindering impactful start-ups. For example, (Acs et al., 2016[8]) say:

> *"We find that most Western world policies do not greatly reduce or solve any market failures but instead waste taxpayers' money, encourage those already intent on becoming entrepreneurs, and mostly generate one-employee businesses with low-growth intentions and a lack of interest in innovating."*

Their view is that public policy interventions are only justified by the presence of market failures and that these occur most clearly when there is a divergence between public and private gains. Policies to promote innovation and growth-oriented start-ups are justified on the grounds of public benefits such as job and income creation. In contrast, policies to stimulate new firm formation in general are less clearly justified by market failures.

This reinforces the point about needing to be clear about policy Objectives and Targets. For (Acs et al., 2016[8]), policy-makers have to be clear that public funds should be directed towards innovative enterprises with the skills and motivation to grow and so generate public benefits. Equally explicit is that public support should not be available for "*one-employee businesses with low-growth intentio*ns".

This approach would, of course, exclude the vast bulk of SMEs and entrepreneurs in all countries from public support. It would also put low priority on social benefits that may be achieved without enterprise innovation and growth, for example through business creation and operation by individuals who are unemployed or disadvantaged in the labour market.

This serves to reinforce the importance of an open discussion about which groups of SMEs or entrepreneurs, if any, should receive public support and for what reasons. Once that discussion is over, the purpose of the policy has to be made clear and captured in the specification of its Objectives and Targets.

This Framework therefore emphasises that:

Recommendation: Governments should specify in advance the Objectives and Targets for each policy and programme introduced. This should include the specific groups of entrepreneurs or SMEs to be supported and a clear justification for the policy intervention in terms of the problem it aims to solve.

Problem 2: Absence of reflection on potential alternative policy approaches to achieving SME and entrepreneurship objectives

With respect to entrepreneurship policies, (Acs et al., 2016[8]) say:

> *"A central-payer health care would remove healthcare-related distortions affecting employment choices; greater STEM education would produce more engineers of which some start valuable new firms; and labor market reform to encourage hiring immigrants in jobs they have been educated for would reduce inefficient allocation of talent to entrepreneurship"*

This poses the question of whether SME and entrepreneurship policy objectives can be more cost-effectively achieved by 'Macro' policy approaches compared with dedicated SME and entrepreneurship programmes offering finance, advice and other support directly to these firms and entrepreneurs. To address this critique requires the conduct of evaluations that are able to provide

a valid comparison of cost-effectiveness across a range of policy areas, including 'Macro' interventions.

As an example, it might be argued that it would be more beneficial for existing SMEs to have public funds used to improve policing and security than to be provided with business advice[7]. However, the scale of the police budget is unlikely to be influenced by the interests of SMEs[8]. Similar issues arise with decisions on the provision of the high-speed digital communications infrastructure needed by SMEs and entrepreneurs or the extent to which the education provided in schools and colleges promotes skills for entrepreneurship. In contrast, there is much more likely to be a mechanism by which SMEs influence the scale and nature of business advice.

The challenge in this situation then, is to develop and use comparative evaluation evidence across different types of SME and entrepreneurship programmes, including 'Macro' interventions, and use this to shift resources to the most effective policy interventions. Such evaluations rarely happen, in part because of the boundaries across different ministries.

Despite its clear advantages for policymakers, we are unaware of a comprehensive evaluation system being in place in any country to compare the impacts of dedicated SME and entrepreneurship policy actions with alternative 'Macro' approaches that could have equal or more substantial impacts and could potentially provide greater cost effectiveness.

Nevertheless, the development of an evaluation culture, reflected in more policy assessments being undertaken across all the domains of policy intervention affecting SME and entrepreneurship activity, increases the likelihood of valid comparability assessments being available.

This Framework therefore proposes that as a minimum:

> Recommendation: The introduction of new policy interventions should be based on evaluation evidence benchmarking expected cost-effectiveness against existing policies.

Problem 3: The effect of time has not been adequately addressed in evaluations.

Time has four clear consequences for evaluation. First, in many countries, both policy objectives, and the means of delivering policy, have changed considerably over time reflecting changed political priorities[9]. Many programmes therefore have only a very short life, making evaluation problematic.

Second, some policy initiatives are expected to have an effect within months – such as providing assistance to SMEs to attend a trade fair – whereas the effect of others may take a generation or more to appear – such as enterprise education programmes in schools. This implies that evaluation approaches will be expected to differ for policies expected to have short-, medium- or long-run effects. This, in turn, makes it more difficult to compare the cost-effectiveness of all programmes.

A third consequence, reflecting these frequent policy changes, is that the SMEs or individuals (entrepreneurs or potential entrepreneurs) who are the intended focus of policy, find both the switching and the diversity of forms of support confusing and respond by "opting-out" of the public support network altogether (Bennett and Robson, 2004[9]). This also creates evaluation issues because of problems in deriving samples of "control" firms.[10]

Finally, where evaluations have taken place and taken it into account, policy impact clearly varies over time. In a rare example of tracking the impact of the same programme over a number of years and using the same reliable methodology, (Drews and Hart, 2015[4]) concludes:

> *"For survival, impact of assistance is found to be immediate, but limited. Concerning growth, significant impact centres on a two to three year period post intervention for the linear selection and quantile regression models – positive for employment and turnover, negative for productivity. Attribution of impact may present a problem for subsequent periods. The results clearly support the argument for the use of longitudinal data and analysis, and a greater appreciation by evaluators of the time factor."*

Problem 4: Evaluations do not take full account of political context

This criticism emphasises that SME and entrepreneurship policy development, and particularly its evaluation has, to date, not taken full account of the political context in which the policy is delivered. This is particularly relevant when seeking to draw lessons from policy evaluations that have taken place in other countries, or in the same country but at earlier time periods.

Two cases illustrate the point. The first is the UK experience of "Think Small First". This was intended to ensure that regulatory reform would **give full consideration to SMEs at the early policy development stage.** (Kitching, 2019[10]) **reviews the impact of this policy by examining the** Small Companies (Micro-Entities' Accounts) Regulations 2013, which was intended to reduce the accounting requirements for small firms. Kitchen documents that the evolution of this legislation reflects the concern of large enterprises of SMEs receiving a cost advantage and is reflected in the "watered-down" form of the final legislation. This illustrates that the political context influences the nature of legislation. It is also likely to influence whether evaluations are undertaken and, if so, their scale and nature.

A second example is taken from New Zealand, where policy has evolved over time. New Zealand moved away from isolated or ad-hoc programmes and towards a greater emphasis upon their interdependencies and inter-connectedness.

(Jurado and Battisti, 2019[11]) document the powerful political dimension of these changes between 1978 and 2008 and link policy shifts to a small number of individuals who they call "institutional entrepreneurs". They include policy advisers and senior officials within government, but also individuals from the business sector, international organisations such as the OECD, and academia.

They say:

> *"New Zealand became a signatory to the OECD Bologna Charter in 2000, which laid out the key issues affecting SMEs. Its involvement further exposed policy makers to the value that SMEs could generate.... and influenced how policy was developed"*
>
> *"Our results depict a policy process where like-minded actors made up of key individuals and groups of stakeholders within the SME policy subsystem, held strong views about the direction of SME policy in order to enable economic growth. In the case of SME policy development, this moment of change occurred when key individuals promoted a particular aspect of SME policy, and the prevailing political discourse became more interested in developing the entrepreneurial qualities of individuals with the ultimate aim of developing successful SMEs."*

Policy evaluation was a powerful positive weapon which constituted the evidence-base for institutional entrepreneurs in New Zealand to recommend, and then implement, policy change. By 2010, SME policy evaluations of Step VI quality such as (Morris and Stevens, 2010[12]) were being used to bring about policy improvements in New Zealand.

Here the lesson is that, although programme impact is strongly influenced by what may appear from the outside to be little more than administrative decisions, frequently made by un-elected public officials, they can draw upon evidence from high-quality evaluations. The ability to generalise about outcomes from seemingly similar programmes enables these "administrative" decisions to be taken based on reliable evidence.

This Framework therefore proposes that in undertaking evaluations, a thorough and sensitive understanding is required of how programmes have been administered and delivered, often over long periods of time.

2.4. Learning the lessons for evaluation practice

This section summarises the lessons that can be learned from the above assessment of the current state of SME and entrepreneurship policy evaluation. These lessons are drawn upon in both the discussion of policy evaluations described in Part II and then in providing policy insights in Part III.

Key Lessons

- Every three years, all major SME and entrepreneurship programmes should be the subject of a reliable evaluation, defined as a minimum of Step V, only the very "short-lifers" being excluded.
- The Objectives and Targets of the programmes should be specified, but open to modification in the light of changed circumstances and experience.
- The Objectives and Targets should be specified in a format that enables them to be evaluated and a judgement reached on whether the policy was successful.
- The Objectives and Targets should be specified when the policy is formally announced.
- The impact of dedicated SME and entrepreneurship policies should be benchmarked against each other and against 'Macro' policies such as regulatory reform, infrastructure improvements and the tax regime.
- Evaluations should be used to frame future policy changes.

Issues for evaluation practice

- Evaluation findings are clearly sensitive to the methods used, to "administrative" decisions and to economic context.
- This makes the case for more evaluations but only those above the minimum quality threshold.
- With this evidence, policy makers will be able to take better account of "administrative decisions" on how policy is delivered and on the role played by different macro-economic contexts.

References

Acs, Z. et al. (2016), "Public policy to promote entrepreneurship: a call to arms", *Small Business Economics*, Vol. 47/1, https://doi.org/10.1007/s11187-016-9712-2. [8]

Bennett, R. and P. Robson (2004), "The role of trust and contract in the supply of business advice", *Cambridge Journal of Economics*, Vol. 28/4, https://doi.org/10.1093/cje/28.4.471. [9]

Drews, C. and M. Hart (2015), "Feasibility Study – Exploring the Long-Term Impact of Business Support Services". [4]

Drinkwater, S., J. Lashley and C. Robinson (2018), "Barriers to enterprise development in the Caribbean", *Entrepreneurship and Regional Development*, Vol. 30/9-10, https://doi.org/10.1080/08985626.2018.1515821. [13]

Gibbons, S., S. McNally and H. Overman (2013), *Review of government Evaluations: A Report for the National Audit Office*. [2]

Greene, F., K. Mole and D. Storey (2007), *Three decades of enterprise culture?: Entrepreneurship, economic regeneration and public policy*, https://doi.org/10.1057/9780230288010. [14]

Harrison, R. and C. Leitch (1996), "Whatever you hit call the target: an alternative approach to small business policy", in *Small firm formation and regional economic development*. [15]

Jurado, T. and M. Battisti (2019), "The evolution of SME policy: the case of New Zealand", *Regional Studies, Regional Science*. [11]

Kitching, J. (2019), "Regulatory reform as risk management: Why governments redesign micro company legal obligations", *International Small Business Journal: Researching Entrepreneurship*, Vol. 37/4, https://doi.org/10.1177/0266242618823409. [10]

Morris, M. and P. Stevens (2010), "Evaluation of a New Zealand business support programme using firm performance micro-data", *Small Enterprise Research*, Vol. 17/1, https://doi.org/10.5172/ser.17.1.30. [12]

OECD (2007), *OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes*, OECD Publishing, Paris, https://doi.org/10.1787/9789264040090-en. [5]

Ramlogan, R. and J. Rigby (2012), "The Impact and Effectiveness of Entrepreneurship Policy", *NESTA Compendium of Evidence on Innovation Policy Intervention* August. [16]

Sara, R. (2016), *Start-Up Support for Young People in the EU: From Implementation to Evaluation*, Eurofound. [6]

U.S. Government Accountability Office (2012), *Annual report: Opportunities to reduce duplication, overlap and fragmentation, achieve savings, and enhance revenue*. [1]

What Works Centre for Local Economic Growth (2016), *Evidence Review 2: Business Advice*. [3]

Widerstedt, B. and J. Månsson (2015), "Can business counselling help SMEs grow? Evidence from the Swedish business development grant programme", *Journal of Small Business and Enterprise Development*, Vol. 22/4, https://doi.org/10.1108/JSBED-06-2012-0073. [7]

Notes

[1] Our emphasis.

[2] Very similar comments were made by (Ramlogan and Rigby, 2012[16]) who find that evaluations that reported on additionality/net effects or that use methods of causal inference to determine the impact and effectiveness of policy .... tended to be found in the academic literature rather than amongst those reports of government schemes that are publicly available.

[3] The LSE report uses a Maryland Scale. Their "minimum" standard is broadly equivalent to Step V.

[4] We highlight this sentence on the grounds that in Part II we make the case that a failure to take account of survival when the policy target is new and small firms lowers markedly the reliability of any findings.

[5] But not the German start-up subsidy programme.

[6] See (Harrison and Leitch, 1996[15])

[7] For example (Drinkwater, Lashley and Robinson, 2018[13]) found that crime was the most important single obstacle facing the owners of micro-establishments in both Jamaica and Guyana. Across the wider Caribbean it was in third place.

[8] Aspects of SME and entrepreneurship policy are often cross-departmental, and a problem arises when SME and entrepreneurship activity can be supported by departments that are not primarily responsible for SMEs and entrepreneurship. Mechanisms are needed to ensure that these other departments do take SME and entrepreneurship interests into account.

[9] One example is New Zealand (Jurado and Battisti, 2019[11]), which we discuss shortly. Another is the UK where policy changed from a focus on new firm creation in the 1980's to growth firms in the 1990s to a wider social focus in the 2000's (Greene, Mole and Storey, 2007[14]).

[10] By this we mean that disillusioned non-participants in public programmes may have very different characteristics from others in the control group – and be much closer to those in the treatment group.

Part II: Review of methods and findings from reliable evaluations

3 Existing meta-evaluations

This chapter reviews twelve meta-evaluations of different aspects of SME and entrepreneurship policies and programmes. For each of these meta-evaluations, information is provided on the sources, policy focus and key findings.

Since the publication of the first OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes in 2007, there have been several meta-reviews of evaluation approaches and evidence in this area.

To identify meta reviews of evaluations of entrepreneurship and SME policies published since 2007, a search was made of academic publications, working papers and policy reports online via Google.com and Scholar.google.com. The citation databases Scopus and Web of Sciences were also searched. A total of twelve meta-evaluations were identified.

A synthesis of the reviews is presented in Table 3.1. It provides information on the year when the review was published, its source, focus and key findings. These groupings, together with others, will be used in our own review of 50 evaluations covered in Chapter 4.

There are however two important areas where the reviews presented in Table 3.1 differ from our review. First, Table 3.1 includes four reviews from low- and middle-income countries. Our review includes only OECD Members, which are all either high-income or upper-middle-income countries. It should be recognised that the impact of policy may differ according to country income levels. However, the inclusion of these evaluations in Table 3.1 is justified on the grounds that high quality evaluation methods were used and also that many of the outcome indicators are common and aligned with what we recommend for OECD countries. Second, because there were only four dimensions common to all the reviews, Table 3.1 compares the reviews only across year of publication, source, focus and key findings. Our review is considerably more wide-ranging on the dimensions of the evaluations considered.

Turning now to our interpretation of Table 3.1 we see that, of the twelve reviews, nine are of the impact of direct financial assistance ("Hard" support) – albeit in different forms – three of which focus on start-up subsidies for the unemployed. There is only one review that focuses solely on the effects of "Soft" business support (advice, training etc.) and one on the effects of business incubation. So, whilst there is reasonable coverage of the impact of financial support, there are major areas of policy expenditure where it was not possible to find reviews. This re-emphasises the point made in Part I that policy assessment is patchy – a point to which we will return in our own review.

In many respects, Table 3.1 confirms our conclusion from Part I that policy impact is mixed. Dealing with the eight reviews of financial assistance, Review 1 describes the impact of interventions as mixed. Tax incentives in low-income countries, covered in Review 2, also appear to have an "inconclusive" impact on economic outcomes and Review 3 paints a similar picture on financial subsidies. Review 4, again of low- and middle-income countries, confirms the above but, most interestingly in the light of our later findings for OECD countries, suggests that training and information programmes do have a positive effect. Review 5 returns to the "mixed evidence" theme, pointing to some finance programmes enhancing some performance metrics – such as survival – but having little impact on productivity. Review 8, for low and middle-income countries, finds that financial subsidies have a positive but only modest impact on several measures of firm performance. Review 10 on financial support for the unemployed seeking to enter self-employment finds that these enhance the earnings of participants. This is confirmed in Reviews 11 and 12, both of which are of German programmes. This programme in particular appears to be consistently successful on its chosen criterion.

Of the remaining non-financial programmes the picture is again mixed. Review 6 covering R&D-related programmes reports positive outcomes on a range of performance metrics such as employment and sales. Review 7 is the most positive of all, finding incubation "greatly enhances" the performance of tenants, but Review 9 can find no statistically significant positive impact on firm performance of "Soft" assistance.

The reviews to date do point to some clear policy successes – most notably the German programmes providing finance to the unemployed to become self-employed. The single review of incubation is also positive but several of the finance reviews – despite using good data and advanced statistical techniques – are unable to clearly link programme assistance to enhanced firm performance.

Table 3.1. Meta-evaluations of SME and entrepreneurship policy

Review Number	Review Name	Year of the Review	Topic	Key Findings	Source of Evidence
1.	The theory and practice of financial instruments for small and medium-sized enterprises	2017	Finance, financial instruments, credit guarantees, soft loans	The authors conclude in their review that the existing empirical evidence concerning financial instruments is somewhat mixed. While the constraints on the credit markets for SMEs exist, the careful design of the public programme, institutional context, evaluation methods and nature of economic conditions influence findings on the overall success of the programmes.	Working paper: (Brown and Lee, 2017[1]). The theory and practice of financial instruments for small and medium-sized enterprises. *EC-OECD seminar series on Designing Better Economic Development Policies for Regions and Cities.* Organisation for Economic Co-operation and Development (OECD), Paris. Available at: http://www.oecd.org/cfe/regional-policy/Brown_When-to-use-financial-instruments.pdf
2.	Review of corporate tax incentives for investment in low- and middle-income countries	2018	Finance, tax incentives	The authors conclude in their review of interventions in Low- and Middle- income countries that the existing literature shows inconclusive evidence on the impact of tax incentives on investment and other economic outcomes such as employment and output. Evidence from cross-country studies using aggregate-level outcomes shows that tax incentives may affect foreign direct investment levels but not necessarily total investment, suggesting the possibility of crowding out effects. Cross-country studies, however, suffer from some methodological limitations.	Working paper: (Abramovsky, Bird and Tyskerud, 2018[2]). Review of corporate tax incentives for investment in low- and middle-income countries. *Institute for Fiscal Studies Briefing note BN229.* Institute for Fiscal Studies, London. Available at: https://www.ifs.org.uk/uploads/BN229.pdf
3.	Small firms, large impact? A systematic review of the SME finance literature	2017	Finance, subsidies, tax incentives, financial instruments	The authors conclude in their review of interventions in Low- and Middle- income countries that SME support has positive effects on firm performance, capital investment and employment, but insignificant effects on profitability and wages. However, they also claim that it remains unclear to what extent SME finance contributes to economic development and poverty reduction.	Academic article: (Kersten et al., 2017[3]). Small firms, large impact? A systematic review of the SME finance literature. *World Development*, 97, 330-348. Available at: http://dx.doi.org/10.1016/j.worlddev.2017.04.012
4.	Do interventions targeted at micro-entrepreneurs and small and medium-sized firms create jobs? A systematic review of the evidence for low and middle-income countries.	2015	Finance, subsidies, tax incentives, financial instruments, training	The authors conclude in their review of interventions in Low- and Middle-income countries that effects of entrepreneurship and SME policies on employment are so far small. They also claim that financial programmes (i.e. subsidies and financial instruments) are less effective than training or business development services.	Academic article: (Grimm and Paffhausen, 2015[4]). Do interventions targeted at micro-entrepreneurs and small and medium-sized firms create jobs? A systematic review of the evidence for low and middle-income countries. *Labour Economics*, *32*, 67-85. Available at: https://doi.org/10.1016/j.labeco.2015.01.003

5.	Public SME grants and firm performance in the European Union: A systematic review of empirical evidence	2019	Finance, subsidies, grants	The authors conclude in their review of interventions in European Union Member States that effects of direct subsidies and capital grants are mostly positive on firm survival, employment, tangible/fixed assets, and sales/turnover, with mixed findings for labour productivity and total factor productivity. The authors also point out that there are significant differences concerning the time-period of analysis (investigating short-term vs long-term outcomes), and importantly, the heterogeneity of effects concerning firm size and age, region, industry, and intensity of support.	Academic article: (Dvouletý, Srhoj and Pantea, 2021[5]). Public SME grants and firm performance in the European Union: A systematic review of empirical evidence. *Small Business Economics*. DOI: https://doi.org/10.1007/s11187-019-00306-x.
6.	Improving access to finance for young innovative enterprises with growth potential: Evidence of the impact of R&D grant schemes on firms' outputs	2019	Innovation grants, R&D grants, science and technology grants	The authors review different types of R&D programmes and analyse the wider policy implications. Overall, they report positive outcomes on employment, total sales, share of innovative sales, and companies' innovation capacities. Moreover, the effects of R&D grants for scale-ups are larger than the effects of both generic R&D grants and R&D subsidies. In terms of policy implications, R&D grants stimulate and prepare companies for growth and targeted funding (technology-focused) delivers better results for disruptive innovations, whereas generic grants for small and medium-sized enterprises are better suited for knowledge diffusion.	Academic article: (Testa, Szkuta and Cunningham, 2019[6]). Improving access to finance for young innovative enterprises with growth potential: Evidence of the impact of R&D grant schemes on firms' outputs. *Research Evaluation*. Available at: https://doi.org/10.1093/reseval/rvz016
7.	Business incubation process and firm performance: an empirical review	2017	Business incubators, support of innovative ventures	The authors conclude in their review that firm performance is greatly enhanced when a firm avails itself of an incubation programme. Revenue growth, employment or job creation, venture funding, networking and alliance building are the performance indices most impacted by the business incubation process. However, tenants should not overstay their tenancy in an incubation programme as doing so reduces their chances of survival upon graduation.	Academic article: (Ayatse, Kwahar and Iyortsuun, 2017[7]). Business incubation process and firm performance: an empirical review. *Journal of Global Entrepreneurship Research*, 7(1), 2. Available at: https://doi.org/10.1186/s40497-016-0059-6
8.	The impact of business support services for small and medium enterprises on firm performance in low-and middle-income countries: A systematic review	2016	Finance, subsidies, tax incentives, financial instruments, training, counselling, advisory services	The authors conclude in their review of interventions in Low- and Middle-income countries conclude that the effects on the firm´s performance, employment and labour productivity are positive. But these effects are not large, and the cost effectiveness of the interventions is not known. The effects on innovation are unclear.	Academic article: (Piza et al., 2016[8]). The impact of business support services for small and medium enterprises on firm performance in low-and middle-income countries: A systematic review. *Campbell Systematic Reviews*, *12*(1), 1-167. Available at: https://doi.org/10.4073/csr.2016.1

9.	The effects of human capital interventions on entrepreneurial performance in industrialized countries	2019	Soft business support, counselling, advisory services, business training, entrepreneurship education	The authors conclude in their review that Soft business support does not have statistically significant effects on entrepreneurial performance, with the exception of formal education, which shows positive effects on firm profits and entrepreneurial earnings.	Academic article: (Hogendoorn et al., 2019[9]). The effects of human capital interventions on entrepreneurial performance in industrialized countries. *Journal of Economic Surveys*. Available at: https://doi.org/10.1111/joes.12308
10.	Review of empirical studies on self-employment out of unemployment: Do self-employment policies make a positive impact?	2016	Finance, start-up subsidy for unemployed	The authors conclude in their review that self-employment programmes (i.e. start-subsidies for the unemployed) succeed in activating individuals out of unemployment as the subsidised businesses have high survival rates and there is high cost-efficiency of intervention. The reviewed studies also report positive outcomes of the programmes on the income and earnings of formerly unemployed individuals.	Academic article: (Dvouletý and Lukeš, 2016[10]). Review of empirical studies on self-employment out of unemployment: Do self-employment policies make a positive impact?. *International Review of Entrepreneurship*, *14*(3), 361-376. Available at: https://www.senatehall.com/entrepreneurship?article=552
11.	Start-up subsidies for the unemployed: Opportunities and limitations	2016	Finance, start-up subsidy for unemployed	The authors conclude in their review that self-employment programmes succeed in activating individuals out of unemployment as the subsidised businesses have high survival rates and there is high cost-efficiency. The authors also conclude that these programmes may have greater positive effects for the disadvantaged group such as women, youth and low-educated workers.	Academic article: (Caliendo, 2016[11]). Start-up subsidies for the unemployed: Opportunities and limitations. *IZA World of Labor*, 200. Available at: https://wol.iza.org/uploads/articles/200/pdfs/start-up-subsidies-for-unemployed-opportunities-and-limitations.pdf?v=1
12.	An evaluation of German active labour market policies: A review of the empirical evidence	2018	Finance, start-up subsidy for unemployed	The authors conclude in their review focused on Germany that most self-employment programmes increased the prospects of the participants. In particular,, evaluations of the entrepreneurship promotion activities show high success rates as well as high cost-efficiency. The bulk of participants of entrepreneurship measures was still self-employed after several years, and nearly one-third of these businesses had at least one employee.	Academic article: (Zoellner, Fritsch and Wyrwich, 2018[12]). An evaluation of German active labour market policies: A review of the empirical evidence. *Journal of Entrepreneurship and Public Policy*, *7*(4), 377–410. Available at: https://doi.org/10.1108/JEPP-D-18-00023

References

Abramovsky, L., N. Bird and Y. Tyskerud (2018), *Review of Corporate Tax Incentives For Investment in Low- and Middle-Income Countries*, Institute for Fiscal Studies. [2]

Ayatse, F., N. Kwahar and A. Iyortsuun (2017), "Business incubation process and firm performance: an empirical review", *Journal of Global Entrepreneurship Research*, Vol. 7/1, https://doi.org/10.1186/s40497-016-0059-6. [7]

Brown, R. and N. Lee (2017), "The theory and practice of financial instruments for small and medium-sized entreprises", *Ec & Oecd* June. [1]

Caliendo, M. (2016), "Start-up subsidies for the unemployed: Opportunities and limitations", *IZA World of Labor*. [11]

Dvouletý, O. and M. Lukeš (2016), "Review of Empirical Studies on Self-Employment out of Unemployment: Do Self-Employment Policies Make a Positive Impact?", *International Review of Entrepreneurship, Article #1540*, Vol. 14/3. [10]

Dvouletý, O., S. Srhoj and S. Pantea (2021), "Public SME grants and firm performance in European Union: A systematic review of empirical evidence", *Small Business Economics*, Vol. 57/1, https://doi.org/10.1007/s11187-019-00306-x. [5]

Grimm, M. and A. Paffhausen (2015), "Do interventions targeted at micro-entrepreneurs and small and medium-sized firms create jobs? A systematic review of the evidence for low and middle income countries", *Labour Economics*, Vol. 32, https://doi.org/10.1016/j.labeco.2015.01.003. [4]

Hogendoorn, B. et al. (2019), "THE EFFECTS OF HUMAN CAPITAL INTERVENTIONS ON ENTREPRENEURIAL PERFORMANCE IN INDUSTRIALIZED COUNTRIES", *Journal of Economic Surveys*, Vol. 33/3, https://doi.org/10.1111/joes.12308. [9]

Kersten, R. et al. (2017), *Small Firms, large Impact? A systematic review of the SME Finance Literature*, https://doi.org/10.1016/j.worlddev.2017.04.012. [3]

OECD (2008), *OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes*, OECD Publishing, Paris, https://doi.org/10.1787/9789264040090-en. [13]

Piza, C. et al. (2016), "The Impact of Business Support Services for Small and Medium Enterprises on Firm Performance in Low- and Middle-Income Countries: A Systematic Review", *Campbell Systematic Reviews*, Vol. 12/1, https://doi.org/10.4073/csr.2016.1. [8]

Testa, G., K. Szkuta and P. Cunningham (2019), "Improving access to finance for young innovative enterprises with growth potential: Evidence of impact of R&D grant schemes on firms' outputs", *Research Evaluation*, Vol. 28/4, https://doi.org/10.1093/reseval/rvz016. [6]

Zoellner, M., M. Fritsch and M. Wyrwich (2018), *An evaluation of German active labour market policies: a review of the empirical evidence*, https://doi.org/10.1108/JEPP-D-18-00023. [12]

4 Review of 50 programme evaluations from 28 OECD countries

The meta-evaluations discussed in Chapter 3 used a wide variety of data sources and analytical methods, implying, as shown in Part I, that the findings of some studies are somewhat more reliable than others. To address this diversity, this chapter contains a detailed review limited only to a selection of evaluations where the data and the analysis satisfy our requirements for reliability. A total of 50 evaluations in 28 OECD member countries are reviewed. The chapter starts by setting out the criteria used to identify and select the 50 evaluations and offers their big picture findings. It then assesses the policy issues they raise. Finally, it discusses the scope and quality of the evaluations.

This section presents the evidence from 50 reviews of published SME and entrepreneurship policy evaluations. It differs from the reviews in the previous chapter because its coverage is highly selective. It is limited to evaluations in OECD countries, published since (OECD, 2007[1]), and it imposes a "quality" criterion on the evaluations that are included. Section 4.1 provides a brief description of how the evaluations were chosen, with full information provided in Annex A. Section 4.2 then presents the big picture findings of the evaluations. Sections 4.3 and 4.4 discuss the policy issues raised and the evaluation approaches used.

4.1. Selecting the evaluations

Our major criterion for including studies in this review was that they used robust methodologies, so enabling policy makers to place reliance on their findings. Since 2007 there have been a considerable number of evaluations of the impact of SME and entrepreneurship policy that do not meet the Step V and VI requirements of (OECD, 2007[1]) and of this Framework. Our decision was to not include them in this review. Inclusion was therefore determined by passing the OECD threshold, together with a range of other factors set out in detail in Annex A. The ultimate purpose was to reach a balanced conclusion on the effectiveness of SME and entrepreneurship programmes from reliable evaluations, as well as to illustrate good evaluation practice. The criteria set out in Annex A generated 50 evaluations in 28 OECD member countries, aimed at covering the following key SME and entrepreneurship policy areas that we identified for assessment, namely:

- Finance;
- Business Advice, Coaching, Mentoring and Counselling;
- Internationalisation;
- Innovation;
- Enterprise Culture and Skills;
- Inclusive Entrepreneurship;
- Regional and Local Evaluations;
- Cluster Policies; and
- Support in Areas of Disadvantage.

Where there were multiple high-quality evaluations of a policy area, we have favoured the inclusion of evaluations from a country for which there were no other high-quality studies.

All 50 programme evaluations are documented in full in Annex B across fifteen dimensions. It included as diverse a range of countries as possible in order to avoid the sample being dominated by large countries that have conducted many evaluations. Annex C provides the interested reader with information about a further 25 such evaluations that were considered but not included on at least one of the above grounds.

4.2. The evaluations: overview of evaluation findings and key features

The "big picture" findings of the evaluations are shown in Table 4.1. The left-hand side of the Table documents the policy results for each evaluation; the right-hand side documents the evaluation coverage and quality. Brief scoring notes and explanations are provided at the foot of the Table, with more comprehensive coverage in Annex B.

Table 4.1. Summarising the findings and key features of 50 reliable evaluations of SME and entrepreneurship policy

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
1 Australia	Finance	Positive effects on sales, profits and obtaining other funding (Positive impact)	1	Hard	Unknown	2005-2010	Unknown	Sales, profit, probability of obtaining other funding	No	V	2
2 Belgium	Finance	Positive effects on fixed assets, employment, sales, value added, labour productivity and TFP growth for very small firms, but no effects for larger firms (Mixed impact)	1	Hard	250 mil. EUR	2004-2009	Results were published in newspapers, but not presented to the policymakers	Employment, fixed assets, sales, value-added, labour productivity and total factor productivity	No	VI	4
3 Canada	Finance	Positive effects on salary, employment and revenues, but no significant effects on profit (Mixed impact)	2	Hard	30 mil. USD	2004	Results were not presented to the policymakers	Employment, revenues, profit and wages	No	V	3
4 Czech Republic	Finance	Positive effects on price-cost margin, value added per labour cost, growth of sales and growth of tangible assets (Positive impact)	1	Hard	86.4 mil. EUR	2007-2013	Presentation of the findings and recommendations to the policymakers	Price-cost margin, return on assets, assets turnover, value added per labour costs, long-run risk, tangible fixed assets, labour costs, sales	No	VI	4
5 Czech Republic	Finance	Positive effects only on tangible fixed assets, otherwise no effects on the outcome variables	2	Hard	164 mil. EUR	2007-2013	Presentation of the findings and recommendations to the policymakers	Total assets, tangible fixed assets, personnel costs, sales, price-cost margin, return on assets	Yes	VI	5

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
		(Mixed impact)									
6 Estonia	Finance	Positive effects on sales and labour productivity (Positive impact)	1	Hard	13.9 mil. EUR	2004-2009	Unknown	Sales, labour productivity	No	V	3
7 Hungary	Finance	Positive effects on employment, value-added, sales, profits, tangible assets, but insignificant effects on labour productivity (Mixed impact)	2	Hard	11,067 bil. HUF	2007-2013	Presentation of the findings and recommendations to the policymakers	Employment, value added, sales, profit, tangible assets, labour productivity	No	VI	4
8 Italy	Finance	Positive effects on return on investment for micro and small firms and negative for medium-sized firms (Mixed impact)	2	Hard	2 bil. EUR	2000- (ongoing)	Presentation of the findings and recommendations to the policymakers	Return on investment	No	VI	4
9 Japan	Finance	Positive effects on credit availability, but no effects on profitability, investment and employment and negative effects on credit score (Mixed impact)	2	Hard	27.1 tril. yen	2008-2011	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Employment, loans obtained from a bank, interest payments, cash ratio, credit score, tangible fixed assets, sales, return on assets	No	VI	4
10 Korea	Finance	Positive effects on sales, employment, wage levels and survival rates. Additional effects specific across schemes are reported (Positive impact)	2	Hard	12 tril. KRW	2001-2003	Results were not presented to the policymakers.	Total factor productivity, employment, sales, wage level, investment intensity, change in R&D status, firm survival	Yes	VI	5

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
11 Lithuania	Finance	Participation did not result in labour productivity gains (No/negative impact)	1	Hard	498.5 mill. EUR	2007-2012	Results were not presented to the policymakers	Labour productivity	No	VI	4
12 Mexico	Finance	Positive effects on value-added, exports, sales, employment and fixed assets. However, the outcomes differed across the programmes (Positive impact)	2	Both	1,911.86 mil USD	2001-2006	Presentation of the findings and recommendations to the policymakers.	Employment, value added, gross production, sales, worked hours, wages, fixed assets, foreign sales, technology transfer payments, maquila services	No	VI	3
13 Slovenia	Finance	Positive effects on employment, but not on sales (Mixed impact)	2	Hard	688 mil. EUR	2009-2015	Results were published in newspapers, but not presented to the policymakers	Employment, sales	No	VI	4
14 United Kingdom	Finance	Positive effects on employment, but no effects on sales (Mixed impact)	2	Hard	2,106.7 mil. GBP	2009-(ongoing)	Unknown	Employment, sales	No	VI	3
15 United States	Finance	Positive effects on employment (Positive impact)	2	Hard	unknown	1992-2007	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Employment	No	VI	4
16 Canada	Business Advice/Coaching/ Mentoring	Positive effects on sales, patents, obtaining an angel equity investment and on formation of a strategic alliance	2	Soft	662,360 USD	2007-2009	Presentation of the findings and recommendations to the policymakers	Sales, obtaining an angel equity investment, patents, formation of a strategic alliance	Yes	VI	5

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
		(Positive impact)									
17 Chile	Business Advice/Coaching/ Mentoring/ Counselling	SMEs improved their sales, employment, wages and sustainability, while large firms increased their sales and export orientation (Positive impact)	2	Soft	42.3 mil. USD.	1998-ongoing	Presentation of the findings and recommendations to the policymakers	Firm sustainability (positive sales), sales, export orientation (exporting), employment and wages	No	VI	4
18 Denmark	Business Advice/Coaching/ Mentoring/ Counselling	Positive effects on firm survival and mostly positive effects on employment, turnover and growth (Positive impact)	2	Soft	1 mil. USD	2002-2006	Presentation of the findings and recommendations to the policymakers	Survival, employment, 20% firm growth in employment or sales	Yes	VI	5
19 Germany	Business Advice/Coaching/ Mentoring / Counselling	No effects on firm-survival (No/negative impact)	2	Soft	500 mil. EUR	2016-2017	Presentation of the findings and recommendations to the policymakers	Firm survival, business scale-up	Yes	VI	3
20 Mexico	Business Advice/Coaching/ Mentoring / Counselling	Positive effects on total factor productivity, return on assets, wages, employment and entrepreneurial skills (Positive impact)	2	Soft	11,856 USD per firm	2008-2009	Presentation of the findings and recommendations to the policymakers	Employment, total factor productivity, return on assets, wages, managerial and entrepreneurial skills	No	VI	4
21 United Kingdom	Business Advice/Coaching/ Mentoring / Counselling	Positive effects of the intensive support on employment and sales growth and negative impact of less intensive support on sales per employee (Mixed	2	Soft	527.63 GBP	2003	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Employment, sales, sales revenue per employee	No	VI	4

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
		impact)									
22 Ireland	Internationalisation	Positive effects on employment (Positive impact)	2	Hard	553,286 EUR	1970-ongoing	Unknown	Employment	No	VI	4
23 Chile	Innovation	Positive effects on new business formation, firm survival and sales growth (Positive impact)	2	Hard	67,000 USD	2001-ongoing	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	New business formation, firm survival, increase in sales	Yes	V	2
24 Finland	Innovation	Positive effects on sales (Positive impact)	2	Both	102.6 mil. EUR	2008-2012	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Sales	No	VI	4
25 Poland	Innovation	Improved science-industry collaboration, increased probabilities of applying for a patent and publishing, and positive effects on the commercialisation of new products/processes (including sales) (Positive impact)	2	Hard	660,000 USD per recipient	2012-2013	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Patent application, publication of a scientific article, citations, development of a new industrial design, prototype, product or process, commercialisation of a new product/process, share of sales from new products/processes, new collaboration, commercialisation index, research and innovation index, collaboration index	No	VI	4
26 Portugal	Innovation	Positive effects on	2	Hard	2,000 mil.	2007-2013	The results were	Employment, sales,	No	V	3

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
		investments, sales, technological progress and job creation, but negative effects on labour productivity and value creation (Mixed impact)			EUR		sent to the policymakers, but not presented	EBITDA, gross value-added, labour productivity, total factor productivity, value creation, tangible fixed assets, patent stock			
27 Spain	Innovation	Positive effects on employment and sales, but no effects on firm survival (Mixed impact)	2	Hard	263.5 mil. EUR	2005-2011	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Employment, sales, survival rate	Yes	VI	5
28 Sweden	Innovation	Positive effects on employment, sales and external equity funding (Positive impact)	3	Hard	3.64 mil. EUR in total	2002-2008	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Employment, equity, sales	Yes	VI	5
29 Switzerland	Innovation	Positive effects on sales, reduction of production costs (Positive impact)	2	Hard	120 mil. Swiss francs (CHF)	2000-2002	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Share of sales from new products, share of sales from new markets worldwide, percentage increase in sales, percentage reduction of average variable production costs due to innovation, economic importance of the innovations, technical importance of the innovations	No	VI	4

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
30 Turkey	Innovation	Positive effects on share of R&D personnel, R&D expenditures per employee and R&D intensity. Effects for the remaining variables were not found to be significant (Mixed impact)	2	Hard	491 mil. USD	1995- (ongoing)	Presentation of the findings and recommendations to the policymakers	R&D intensity, R&D expenditures per employee, share of R&D personnel, export intensity, import intensity	No	VI	4
31 United States	Innovation	Positive effects on sales and employment, but negative effects on firm survival (Mixed impact)	2	Both	Unknown	1990-2007	Unknown	Firm survival, sales, employment	Yes	VI	5
32 Czech Republic	Enterprise Culture and Skills	No effects on employment (No/negative impact)	2	Soft	618 mil. EUR	2007-2013	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Employment	No	VI	4
33 Netherlands	Enterprise Culture and Skills	No effects on self-assessed entrepreneurial skills (and traits) and negative effects on entrepreneurial intentions (No/negative impact)	2	Soft	Unknown	2005	Unknown	Entrepreneurial competences and intentions (validated scales) measured as need for achievement, need for autonomy, need for power, social orientation, self efficacy, endurance, risk taking propensity, market awareness, creativity, flexibility	No	V	4

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
34 Netherlands	Enterprise Culture and Skills	Positive effects on profit and some areas of tax compliant behaviour. No impact on firm survival (Mixed impact)	2	Soft	Unknown	2008-2009	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Firm survival, profit, business costs, filing tax return correctly, completely and in time, and paying the amount of taxes due in time, bookkeeping skills	Yes	VI	5
35 United Kingdom	Enterprise Culture and Skills	Positive effects on profit margin and sales revenue per employee for firms participating in at least one training activity (Positive impact)	2	Soft	Unknown	2002-2003	Results were not presented to the policymakers	Profit margin, sales revenue per employee	No	VI	4
36 United States	Enterprise Culture and Skills	Short-term positive effects on business start-up, but no effects on business performance (Mixed impact)	2	Soft	2.8 mil. USD	2003-2005	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Business start-up, household income, employment, sales	Yes	VI	5
37 Chile	Inclusive Entrepreneurship	Positive effects on employment and earnings (Positive impact)	2	Both	1.83 mil. USD	2002-(ongoing)	Presentation of the findings and recommendations to the policymakers	Employment, earnings	No	VI	4
38 France	Inclusive Entrepreneurship	Positive long-term effects on firm survival (Positive impact)	2	Hard	700 mil. EUR	1998	Results were not presented to the policymakers	Firm survival	Yes	VI	5
39 Germany	Inclusive Entrepreneurship	Positive and long-term effects on the probability of being employed or self-	2	Hard	169.66 mil. EUR	2005-ongoing	Presentation of the findings and recommendations to the	Share of formerly unemployed participants returning to unemployment	No	VI	4

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
		employed (rather than return to unemployment) (Positive impact)					policymakers				
40 Germany	Inclusive Entrepreneurship	Positive and long-term effects on the probability of being employed or self-employed (rather than return to unemployment) (Positive impact)	2	Hard	268 mil. EUR	2012-ongoing	Results were not presented to the policymakers	Share of formerly unemployed establishing in self- or regular employment, earnings	No	VI	4
41 Germany	Inclusive Entrepreneurship	No effects on firm-survival (No/negative impact)	2	Both	Unknown	1986-ongoing	Unknown	Firm survival	Yes	VI	5
42 Italy	Inclusive Entrepreneurship	Positive effects on firm survival and, to some extent, on employment (Positive impact)	2	Hard	Unknown	2011-2015	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Employment, firm survival	Yes	VI	4
43 Spain	Inclusive Entrepreneurship	No effects on firm survival (No/negative impact)	2	Hard	Unknown	2013-ongoing	Presentation of the findings and recommendations to the policymakers	Firm survival	Yes	VI	5
44 Sweden	Inclusive Entrepreneurship	Positive effects on probability of leaving unemployment (Positive impact)	2	Hard	800 mil. SEK	1984-ongoing	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Probability of leaving unemployment	No	VI	4
45 Spain	Regional and	Positive effects on	2	Both	Unknown	2002-2005	Presentation of the	Employment	No	VI	4

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
	Local Evaluations	employment growth only in the case of soft business support, but not in the case of financial support (Mixed impact)					findings and recommendations to the policymakers. Some changes were implemented				
46 Germany	Support in Areas of Disadvantage	Positive effects on employment and turnover, but insignificant effects on gross fixed capital, and labour productivity (Mixed impact)	2	Hard	1.377 bil. EUR	2007-2013	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Employment, turnover, gross fixed capital, labour productivity	No	VI	4
47 Italy	Support in Areas of Disadvantage	Positive effects on sales, value-added, employment and fixed assets, but negative effects on total factor productivity (Mixed impact)	2	Hard	23 bil. EUR	1996-2007	Results were not presented to the policymakers	Employment, sales, fixed assets, value-added per labour costs, debt costs, total factor productivity	No	V	4
48 Italy	Support in Areas of Disadvantage	Positive effects on tangible assets, turnover and employment, but insignificant effects on value-added per labour costs (labour productivity) (Mixed impact)	2	Hard	23 bil. EUR	1996-2007	Unknown	Employment, sales, fixed assets, value-added per labour costs	No	VI	4
49 Italy	Support in Areas of Disadvantage	Positive effects on fixed assets, sales and employment and negative effects on total factor productivity (Mixed	2	Hard	23 bil. EUR	1996-2007	Results were not presented to the policymakers	Employment, sales, fixed assets, total factor productivity	No	VI	4

POLICY ISSUES								EVALUATION COVERAGE AND QUALITY			
Study number/ country	**Evaluation theme**	**Key findings**	**Objectives specification score**	**Hard/ Soft/ Both**	**Programme expenditure**	**Lifespan of programme**	**Policy impact of evaluation**	**Performance metrics**	**Non-survivors included?**	**Step level**	**Evaluation quality score**
		impact)									
50 United Kingdom	Support in Areas of Disadvantage	Positive effects on employment and investments, but no effects on total factor productivity (Mixed impact)	2	Hard	164 mil. GBP	1972-ongoing	Presentation of the findings and recommendations to the policymakers. Some changes were implemented	Employment, investments, valueadded per employee, total factor productivity	No	VI	4

Scoring notes and explanations:

Objectives Specification Score: When ranking the programme objective setting, we used a scale from 1 to 3. We ranked 1 when the programme had only general objectives or indicators, 2 when the programme had specific objectives and indicators close to its objective, and 3 when the programme had milestones and target values in addition to specific objectives and indicators.

Hard/Soft/Both: We assigned programmes the label hard when they had a strong component of financial support. Soft programmes were those focused on advice, training and mentoring without substantial financial support. Programmes with both a financial and advice/training/mentoring element were assigned the label Both.

Step Level: To assess the methodological rigour of the evaluation study, we have followed the Six Steps to Heaven Approach described in (OECD, 2007[1]) and this Framework. It ranks sophistication of the methods used from I to VI. The approach ranks studies in the following way: Step I: take-up of schemes, Step II: recipients' opinions, Step III: recipients' views of the difference made by the assistance, Step IV: comparison of the performance of "assisted" with "typical firms", Step V: comparison with match firms, and Step VI: taking account of selection bias.

Evaluation Quality Score: This assesses the quality of the evaluation on its link to the objectives of the intervention, the research sample, accounting for the impact of firm survival and non-survival, the impact variables, the evaluation methods and their implementation. Evaluations are scored on these factors on a scale from 1 to 5:

We scored 1 when the evaluation was based only on a limited sample, evaluation methods were very basic and were not implemented properly, impact variables did not match programme objectives, and survival analysis was missing.

We scored 2 when the evaluation was based only on a limited sample, evaluation methods were very basic but were appropriately implemented, impact variables did not match programme objectives, and survival analysis was missing.

We scored 3 when the evaluation was based on an adequate and representative sample, evaluation methods were appropriately implemented, impact variables did not match programme objectives, and survival analysis was missing.

We scored 4 when the evaluation was based on an adequate and representative sample, evaluation methods were appropriately implemented, impact variables matched programme objectives, but survival analysis was missing.

We scored 5 when the evaluation was based on an adequate and representative sample, evaluation methods were appropriately implemented, impact variables matched programme objectives and survival analysis was included.

4.3. Policy issues

Column 1 of Table 4.1 provides the study number, enabling the interested reader to obtain full information on the study from Annex B.

The second column shows the 50 evaluations, covering eight main SME and entrepreneurship policy areas. Almost one third (15) are of different aspects of Finance programmes and there are nine studies of Innovation programmes. A third policy area with several reliable evaluations is Inclusive Entrepreneurship where there were eight.

Despite the ubiquity of policy initiatives providing Soft business support in the form of Business Advice/Coaching/Mentoring/Counselling we were unable to find many evaluations that satisfied our criteria for reliability. There are only 6 reliable evaluations of this kind of support among the 50. We see this as a matter of concern, as was the absence of any reliable Cluster policy evaluations.

A limitation of Table 4.1 is that each programme evaluation is placed in only a single policy area, whereas several cover multiple policy areas. For example, policies to enhance innovation frequently use both public funding and advice meaning they could, in principle, be placed in the policy areas of Finance or Business Advice/Mentoring/Coaching/Counselling (Soft support). Hence placing the evaluated programmes in a single policy area could, potentially, be misleading. To address this, the Framework looks closely at any stated policy objectives and categorises the programmes on what appears to be the dominant focus[1]. We also favour repetitive evaluation studies of the same intervention on the grounds that policy lessons can be learnt when outcomes differ.

Results

The third column of Table 4.1 provides a verbal description of the 50 evaluation results so, in order to make the findings easier to interpret, we compress them into three groups for further discussion below.

- *Positive Impact*. The first group are the evaluations where the findings are either exclusively positive or, where although there are multiple performance metrics, the strong balance of metrics are positive. There are 23 such evaluations and they are defined as Positive.
- *No/Negative Impact*. The second group are those in which there was either no evidence of impact according to any metric or where the balance of evidence pointed to a significantly negative effect. These evaluations are defined as No/Negative Impact. There are 6 evaluations in this group.
- *Mixed Impact*. The third group are those where impact differs depending on the chosen metric. So, for example, Study 3 finds a positive impact on sales and employment, but no impact on profitability. The 21 evaluations of this type are classified as Mixed.

The overall picture that emerges is of one that is broadly positive but, with just over half of the evaluations pointing to either Mixed or No/Negative Impacts, SME and entrepreneurship policies are some way off being given a clean bill of health.

In part this may be because evaluation outcomes are influenced either by the sophistication of the evaluation as noted in (OECD, 2007[1]), or by the policy area under consideration. We now examine both explanations.

Policy impact and EQS

(OECD, 2007[1]) stated that:

> *"sophisticated evaluations of SME support are, on balance, less likely to provide evidence of policy impact than the evaluations using the less sophisticated approaches", p50*

It would be a matter of real concern if this pattern continued, with the less reliable studies being more likely to point to positive – or negative – impacts. To examine such a link we show our reliability measure – the Evaluation Quality Score (EQS) – alongside outcomes in Table 4.2. The EQS data is reported in the final column of Table 4.2 and is discussed in more detail below.

Table 4.2. Comparison of Evaluation Quality Score and estimated programme impact

Absolute number of evaluations in each category

	Evaluation Quality Score (EQS)				
Evaluation outcomes	**EQS 2**	**EQS 3**	**EQS 4**	**EQS 5**	**Total number of evaluations**
MIXED IMPACT	0	3	13	5	21
NO/NEGATIVE IMPACT	0	1	3	2	6
POSITIVE IMPACT	2	2	14	5	23
Column Total	**2**	**6**	**30**	**12**	**50**

Reassuringly, this shows that, amongst the 50 high-quality evaluations documented here, outcomes do not seem to be clearly influenced by the EQS. Other implications of EQS are discussed later.

It is, of course, not possible to reach a judgement about whether, amongst the numerous SME and entrepreneurship policy evaluations that did not meet the reliability requirements of this Framework, there continues to be a link between positive estimated outcomes and low evaluation quality.

Policy impact and policy type

A second dimension on which policy impact can be reviewed is whether it varies with policy type. This Framework uses a three-way grouping of policy types, distinguishing between Hard, Soft and Both. These are shown for each evaluation in Column 5 of Table 4.1. There are 33 Hard and 11 Soft programmes, with 6 combining Hard and Soft (i.e. Both).

Using this distinction, Table 4.3 assesses whether, for example, Soft programmes are less likely to be classified as having a Positive outcome. Although there are small numbers involved, out of the 6 Evaluations with No/Negative outcomes, 3 out of the 11 Soft programmes were in this category. The comparable figure for Hard policies was 2 out of 34.

Given the difficulty of finding reliable evaluations of Soft programmes to include, this suggests the impact of Soft support continues to be open to valid questioning.

Table 4.3. Comparison of type of programme – Hard, Soft and Both – and estimated programme impact

Absolute number of evaluations in each category

	Programme type			
Evaluation outcomes	Both	Hard	Soft	Total number of evaluations
MIXED IMPACT	2	16	3	21
NO/NEGATIVE IMPACT	1	2	3	6
POSITIVE IMPACT	3	15	5	23
Column Total	**6**	**33**	**11**	**50**

Objectives

Column 4 of Table 4.1 presents, for each study, the extent to which Objectives and Targets were specified – ideally prior to the programme being implemented. Our scoring system was 1 is when the programme had only general Objectives, 2 when it had indicators close to its Objective, and 3 when this was combined with specific milestones and Target values.

The results, taken from Table 4.1 are very disappointing. Only 1 evaluation out of 50 scored "3" (2%), although 44 scored "2" (88%).

Scale of expenditure and lifespan of programme

Columns 6 and 7 of Table 4.1 document the scale and duration of the 50 programmes evaluated. It confirms these are generally large-scale and had a lengthy life span. This is to be expected because clearly unsuccessful programmes do not require evaluations to provide evidence of their ineffectiveness. Secondly, as noted in (OECD, 2007[1]), since evaluations have high fixed costs they tend to be focussed on large, rather than small scale policies and programmes. Finally, there may be an element of survivor bias, with only the long-term programmes surviving for long enough to merit an evaluation.

This seems to be supported by Table 4.1. Only 4 evaluations were of short-lived programmes of less than 2 years, although a further 8 were of programmes with a lifespan of 2-3 years. In contrast, there were 13 evaluations of programmes that were both currently ongoing, and which had already had a lengthy lifespan.

Given this diversity it is unsurprising that expenditure varies considerably between the programmes but, perhaps of greatest concern is that in 10 cases it was not possible to determine either from public sources or from those undertaking the evaluation, the sums involved. In the case of small, short-life programmes the sums may have been negligible but in some cases these programmes are on-going and have had a lengthy period of operation.

Ideally expenditure should be linked to impact, so as to be able to comment upon policy effectiveness in terms of a metric such as cost per job created. This would enable more reliable comments to be made on areas of high and low policy effectiveness. Unfortunately, such metrics rarely appear in the vast bulk of the individual evaluations. It is therefore not possible to comment beyond the remarks made in relation to Table 4.3.

Impact of evaluation

The final column of the left-hand side of Table 4.1 seeks to capture the impact of the evaluation in terms of the awareness of the concerned policy makers of its findings, and any changes to policy that took place following the evaluation.

This information was never provided in the published documents consulted and had to be obtained from those undertaking the evaluation. It therefore has all the well-established limitations of self-reported data. Also of concern is that this information could not be obtained in 8 cases.[2]

Nevertheless, a summary of the impacts documented in Column 8 found that in 17 cases there was a presentation to policymakers and some changes were implemented. In 14 cases there was a presentation made to policymakers but no awareness of changes to the programme being implemented. In 2 cases the results were published or sent to the policymakers, but not presented to them.

Perhaps the most disappointing finding was that in 7 cases the results were never presented to policymakers and the evaluators were also unaware of any policy changes that followed from the evaluation.

Overall, this suggests that in about one-third of cases the evaluation appears to have had an impact in the sense that policymakers were both aware of its findings and changes to the programme were implemented.[3] A case may also be made that evaluations were successful if policymakers were aware of their findings, even if no changes were made. On those grounds almost 75% of the evaluations where an outcome has been specified could claim to be successful. However, the reasonable aim should be to achieve 100% amongst reliable studies.

4.4. Evaluation coverage and quality

Performance metrics

Column 9 of Table 4.1 shows the performance metrics reported for each of the 50 evaluations. In some evaluations, only a single metric is used to judge effectiveness whereas in others up to eight different metrics are used. What emerges is the, almost bewildering, diversity of metrics used by those conducting evaluations of SME and entrepreneurship policies.

Table 4.4 seeks to structure that diversity. It takes only the 12 metrics that are used in more than a single evaluation and shows how, in most cases, their usage varies between the eight policy areas. The two exceptions are Employment, which is used in 28 out of 50 evaluations, and Sales, which is used in 27 evaluations.

The other metrics are used much less frequently and, as Table 4.4 shows, tend to be concentrated in some policy areas, yet absent from others. For example, the crucial metric of Survival is used in only about one-third of the evaluations, most of which are in the policy areas of Innovation and Inclusive Entrepreneurship. The absence of a Survival metric in 14 out of the 15 Finance evaluations has to be a cause for real concern. A similar pattern emerges from the other rows of Table 4.4 with important metrics such as Value Added and Productivity appearing in comparatively few evaluations and, where they are used, being limited to only a few policy areas.

The policy significance of this patchy and inconsistent use of metrics is that it makes it difficult to make informed decisions – even when evaluations have been undertaken – when each evaluation uses different metrics. It will be recalled that the theoretical ideal is for all policies to have the same marginal impact – such as cost per job created – across all policy areas, implying there was no benefit in public funds being transferred from one policy area to another.

However, to make such a judgement requires the same metric – such as cost per job created – to be used across all policy areas. The evidence from Table 4.4 clearly shows that no single metric is consistently used. Even metrics such as Sales or Employment are only used in about half of the evaluations.

Also of concern is that some policy areas seem to have "favourite" metrics which are not used in other policy areas. This makes it impossible for policymakers to assess, on the basis of evaluations, the benefits of shifting funding from one policy area to another.

The evidence from Table 4.4 points to the value of having at least three "common" metrics to be used in all evaluations of SME and entrepreneurship policies and programmes. It suggests these should be Sales, Employment and Survival. These could then be supplemented by others appropriate for the policy area – such as Patents for Innovation evaluations or Wages for Enterprise Culture and Skills or Areas of Disadvantage evaluations.

Table 4.4. Evaluation metrics used in the evaluations

Metric	Number of evaluations using the metric	Comment
Employment	28	Widely used across all policy areas
Sales	27	Widely used across all policy areas
Various Accounting Metrics	13	Never used in the policy areas of Inclusive Entrepreneurship or Enterprise Culture and Skills
Productivity Metrics	13	Used primarily in evaluations of Finance and Areas of Disadvantage
Survival	11	Used primarily in the policy areas of Inclusive Entrepreneurship and Innovation. Hardly used in Finance evaluations or Areas of Disadvantage
Wages	6	Used in Finance, Innovation and Internationalisation and Inclusive Entrepreneurship evaluations
Profits	5	Use is primarily in Finance evaluations
Value Added	4	Use is limited to evaluations in Finance, Innovation and Areas of Disadvantage
Overseas Sales	4	Used in four studies of Innovation and Internationalisation
Reported Competencies	2	Used only in Enterprise Culture and Skills evaluations
Entry into Business	2	Used once in Enterprise Culture and Skills and once in Innovation evaluations
Patents Sought	2	Used only in Innovation evaluations

Survival

It was noted earlier that an important limitation of many SME and entrepreneurship policy evaluations was their failure to take full account of the Survival/Non-Survival of enterprises. This is of particular concern because of the low survival rates of SMEs, and of new firms in particular. Evaluations which report changes in the sales or employment amongst recipients only when they are trading therefore risk overestimating the impact of the policy if a large proportion of these firms cease to trade shortly afterwards.

Unfortunately, it appears from column 10 of Table 4.1 that, even amongst this selection of high-quality evaluations, only 15 out of 50 reported taking account of enterprise Survival/Non-Survival.

Step Level and Evaluation Quality Score

The final two columns of Table 4.1 present information on the Step Level for each evaluation, together with our more challenging Evaluation Quality Score (EQS).

Using the Six Steps ranking, 43 out of the 50 Evaluations (86%) are ranked at Step VI – the highest possible rank. As noted earlier, the OECD 2007 Framework was only able to identify 6 Step VI studies out of the 41 (15%) that were included. This points to the considerable improvement in the quality – and hence the reliability – of evaluations in this policy area.[4]

However, this overall improvement in quality has brought with it a recognition that even Step VI evaluations have potentially important limitations. For this reason, Section 4.3.2 sets out the more challenging EQS on which each evaluation is also scored. These outcomes were used earlier in Table 4.2; it showed that 30 out the 50 evaluations scored 4 and 12 scored 5. In most cases the difference between a score of 4 and a score of 5 was that, in the former case, there was either no, or imperfect coverage, of survival/non-survival.

The 50 evaluations therefore constitute a substantial and reliable group upon which to derive conclusions on the effectiveness of SME and entrepreneurship policy and its constituent policy areas. It is clear there have been considerable improvements in both data and analysis since 2007. In the review of 42 evaluations carried out in the 2007 OECD Framework, only 6 would have been of sufficient reliability to merit inclusion in the current review.

> The key lesson is that, for most countries and for most policy areas, there are no longer either technical or data-based reasons for either not conducting evaluations, or for conducting sub-optimal evaluations.

References

OECD (2007), *OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes*, OECD Publishing, Paris, https://doi.org/10.1787/9789264040090-en. [1]

Notes

[1] In a small number of cases these were also not clearly specified. Here our judgement was based on the focus of the published evaluation.

[2] This could be a biased sample of in many respects – favouring more recent evaluations or those where memories are more favourable. The reported views on the impact of the evaluation on policy could also be influenced by a desire to seek more work.

[3] Of course this does not imply that it was the evaluation findings that brought about the change

[4] For example, in 2007 there were no Randomised Control Trial (RCT) studies to report whereas this Framework includes RCTs from Germany, Chile, Mexico, Netherlands and the United Kingdom.

5 Synthesis and implications

This chapter briefly discusses the key implications for evaluation and policy making arising from the review of existing SME and entrepreneurship policy meta-evaluations in Chapter 3 and our review of 50 evaluations discussed in Chapter 4. The chapter begins by identifying commonalities between the issues raised in chapters 3 and 4. It then highlights the key lessons and findings that have emerged. Lessons are identified first for policy makers and then for those conducting or commissioning evaluations.

5.1. Commonalities between the existing meta-evaluations and our review

Part II of this Framework has provided a review of SME and entrepreneurship policy evaluations from two sources. The first is a "review of the reviews" and the second is our own review, which is limited to those evaluations of the highest technical quality.

Unsurprisingly there were several commonalities in their findings and messages. The most frequent was the use of the word "mixed" to describe the impact both of many individual policies and programmes and across the set of different policy measures applied. Some programmes clearly "worked" and, equally clearly, a smaller number did not. However, the most frequent assessment was that the effectiveness of a programme varied according to the metric on which it was judged. For example, a programme might be effective for larger but not for smaller SMEs; or it might be effective in enhancing the profitability of an SME but have no effect on employment. The choice and subsequent specification of the metric(s) used to judge a policy is therefore a key issue.

A second commonality is that it is now clear, for most countries and for most policy areas, that there are no longer either technical or data-based reasons for either not conducting evaluations, or for conducting sub-optimal evaluations. The reviews reported in Part II identify cases of high-quality evaluations that have been conducted in recent years across all the key areas of SME and entrepreneurship policy and across high-, medium- and low-income countries. Any reluctance to undertake reliable evaluations cannot therefore be explained on grounds of imperfect data or lack of access to expertise.

5.2. Lessons from Part II for policy makers

We now turn to key lessons that emerged primarily from the review of the selected 50 evaluations, all of which were of high technical quality and hence reliability. We begin with the lessons for policymakers and then turn to those relevant for evaluators.

For policymakers, the key consideration is the specification of objectives. The review makes it clear that most policies seem to have a diverse range of objectives which, in some but not all cases, are explicitly stated. It shows that policies frequently succeed on some objectives but not on others, so generating the "mixed" picture. There is therefore merit in tightly specifying a smaller number of objectives that are "common" across all policy areas. This will facilitate comparisons of the cost-effectiveness of different interventions and provide the case for shifting budgets to the most cost-effective policies. So, for example, job creation in areas of disadvantage could be enhanced by policies improving access to finance, by the provision of free business advice, and/or by programmes to enhance enterprise culture. Specifying a single or small number of objectives and then focusing evaluations on them would provide valuable insights into the policy area best able to deliver the objectives.

This Framework suggests having the three "common" metrics of Sales, Employment and Survival, which would be used in all evaluations of SME and entrepreneurship policies. These could then be supplemented by others appropriate within a specific policy area – such as Patents for Innovation-focused programme evaluations or Wages for Enterprise Culture and Skills or Areas of Disadvantage programmes – but these should be very few in number.

Making a judgement on cost-effectiveness also requires data on programme expenditure, yet in 10 out of the 50 reviewed evaluations, this information was unavailable. It is to be hoped that expenditure data is available to policymakers, even if external evaluators were unable to obtain it.

A further important finding for policymakers is that, based on evaluations using good quality methods and data, there appear to be no major policy areas where programmes are consistently ineffective. However, in line with (OECD, 2007[1]), doubts continue to remain over both "Soft" Business

Advice/Coaching/Mentoring/Counselling programmes and programmes grouped as Enterprise Culture and Skills. This concern is partly based on the findings of the 50 evaluations examined, but is also based partly on the review of the meta-evaluations. Furthermore, it was also not possible to find any evaluations of Cluster policy that satisfied the technical requirements of this Framework.

So, although there is, as yet, no clear case for abandoning policies in these areas, we believe that if new initiatives are introduced in these areas, a precondition should be that a reliable evaluation is undertaken and results published.

5.3. Lessons of Part II for evaluation practice

We now turn to the conduct of evaluations. This is relevant both to evaluators and to policy makers concerned with commissioning evaluations. It is appropriate to begin by emphasising the huge improvement in the availability of reliable evaluations since the (OECD, 2007[1]) review. Using the Six Steps measure, only 6 out of 41 (15%) evaluations reported in 2007 were ranked at Step VI for reliability. In contrast, 43 out of the 50 evaluations included here – 86% – were ranked at Step VI.

Despite this progress, there remain clear areas for improvement. First, despite governments undertaking the high-quality and potentially influential evaluations reported in chapter 4, only about one-third of the evaluations clearly led to policy change. Even if an evaluation did not lead to an identifiable change in policy, it can be considered to have value when policymakers were reported as being aware of its findings. This was the case in approximately 75% of cases, but the aim has to be 100%. We see this as an important, but comparatively easy to address area.

More problematic is that, despite the marked improvement in the technical quality of evaluations in recent years, several important technical issues are not adequately addressed. First, it is concerning to find that survival was explicitly addressed in only one-third of studies. No study of new/small firm performance can be considered wholly reliable unless it addresses survival/non-survival.

Second, it has been noted above that the “mixed” picture that emerges from both this and earlier reviews in part reflects the multiple metrics chosen to evaluate programmes. An issue for evaluators is to investigate whether some metrics are consistently more likely than others to show positive impact, negative impact, or no impact. For example, it may be that programme X is classified as “mixed” because it included a metric that has been shown to be unresponsive to policy in several other evaluations. In short, evaluators should investigate whether there is a case for more fine-grained evaluations that can show the effects of policy on different metrics.

Third, it has already been stated that programme expenditure information is often missing from evaluation reports. However, in addition, even where data on programme funding has been collected, it has often proved difficult to use it to estimate and compare the cost-effectiveness of programmes. In part this is because of currency issues and because of the very different duration of programmes. In principle it is relatively easy to set out cost-effectiveness in ways that permit comparison across countries and time periods, but it is undertaken very rarely. It therefore remains an important but, as yet unresolved, challenge for evaluators to make better use of programme-cost data and then to use it to compare the cost-effectiveness of programmes.

Finally, a challenge for future evaluations is to combine assessment of the microeconomic and macroeconomic impacts of policies and programmes. It has been noted that SME and entrepreneurship policies and programmes can have both positive and negative effects beyond the recipient firms. For example, technical progress has been shown to generate positive local externalities. On the other hand, the creation of a new firm frequently also leads to the exit of others. Neither effect is adequately captured in the type of micro studies reviewed here. This means policymakers are unable to reliably judge the full impact of programmes.

Reference

OECD (2007), *OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes*, OECD Publishing, Paris, https://doi.org/10.1787/9789264040090-en. [1]

Part III: Learning the lessons

6 Why do SME and entrepreneurship policy evaluations provide mixed evidence of impact?

This chapter poses the key question: Why, even when the evidence is reliable, do evaluations often show lack of effectiveness of SME and entrepreneurship policy measures in achieving key policy objectives? Five potential explanations are explored: i) the policies and programmes are flawed; ii) the delivery of SME and entrepreneurship policy is problematic, iii) the evaluations themselves fail to appropriately take context into account; iv) policy outcomes are diverse because SMEs and entrepreneurs are diverse; and v) policy can have unintended consequences.

Part II of this Framework summarised several earlier reviews of SME and entrepreneurship policy evaluations and concluded that the findings were "mixed", with some policies having a positive impact, others showing no positive impact and others finding impacts on some metrics but not others. What remained unclear was whether these, frequently very different, findings reflected real differences in policy impact, or whether they merely reflected the different reliability of the evaluations.

To address the problem of reliability, Part II then examined 50 evaluations that each satisfied OECD reliability criteria at the Step V or Step VI levels of the Six Steps to Heaven guidelines. The conclusion based on these cases was that, although some programmes clearly "worked", a, generally smaller number, did not. In other cases, reaching a clear conclusion was difficult because whereas there were impacts on some indicators there were not on other (potentially more crucial) indicators. It was therefore reasonable to conclude that policy outcomes were "mixed" overall.

The diversity of findings from SME and entrepreneurship policy evaluations, even when all have used reliable data and methods, may be influenced by factors such as: the metric(s) on which the policy was judged; the context in which it was delivered; the timescale of the programme; or the target group of firms or entrepreneurs addressed. For example, a programme might be effective for larger, but not for smaller, SMEs; it might be effective in enhancing the profitability of an SME but have no effect on its employment; it might have a short-run impact, but no longer-run impact; it might be successful in taking individuals out of unemployment but unsuccessful if the objective is to create new, innovative and productive enterprises (Caliendo, Künn and Weissenberger, 2020[1]).

This chapter examines further what may explain the diversity of outcomes identified by SME and entrepreneurship policy evaluations, and how this should be taken into account by policymakers when framing, and subsequently evaluating their policies. Ideally there should be a clear link – in terms of cause and effect – between policy application and impact, but the evidence from the exemplar Part II cases shows this is often not the case. Why, then, is the link between SME and entrepreneurship policy application and impact not always clear?

Five explanations for this mixed picture can be proposed. The first repeats the arguments set out in Part I, namely that much policy in this area is flawed in principle and therefore would not be expected to "work". The second explanation is that the diversity of outcomes reflects a diverse set of influences on how policy is delivered, and hence how effective it is. The third is limitations in the evaluation approach with respect to accounting for programme context. The fourth is that impact is diverse because the performance of SMEs and entrepreneurs themselves is so diverse. The final explanation is that, because such policies are relatively new, there will always be unintended outcomes. Each of these issues is now discussed.

6.1. Is policy flawed in principle?

Several leading academic commentators have argued that large parts of SME and entrepreneurship policy, as delivered in most OECD countries, are misguided for a range of reasons, and so the "mixed" outcome is the best to be expected.

For example, Part I referred to the work by (Acs et al., 2016[2]). Their starting position is that government intervention to support new and small firms is justified only where there is clear evidence of market failure as, for example, in public support for innovative enterprises with the motivation to grow. By implication, it is the absence of clear market failure for other forms of support that explains the "mixed" picture of impact overall.

6.2. Is the delivery of SME and entrepreneurship policy problematic?

Political scientists who have examined SME and entrepreneurship policy see policy performance as being strongly influenced by the processes through which it emerged. This approach emphasises the need, in deciding what works and what does not, to better understand how the policy evolved, since it is this which determines how it is delivered "on the ground" and, by implication, its ultimate success. For example, (Arshed, Carter and Mason, 2014[3]) describe a six-stage process through which UK enterprise policy evolved in the years 2009-10. Drawing upon interviews with those involved with policy, they point to public servants being fully aware of "how" policy is expected to evolve but acknowledging that in practice these "formal structures can never conquer the non-rational dimensions of organisational behaviour".

The authors acknowledge that much UK policy in this area has been ineffective but attribute this, not to the policy itself, but to the inability of law-makers to negotiate its passage through government and to then ensure it is delivered as intended. In this context, the term "delivery" is wide-ranging. It includes an acceptance of an idea, but this then being modified, even hijacked, at points in time as it progresses through the legislative process by individuals or interest groups with "agendas" that are not necessarily fully in line with those underpinning the policy.

6.3. Is it the evaluation that is the problem?

A third group of explanations for the diverse range of outcomes from evaluations of SME and entrepreneurship policy is that the mixed picture reflects the limitations of evaluation *per se,* even when following Step V and VI methods. So, although many evaluations of SME and entrepreneurship policies have not found significant impacts, this does not justify the policy overall as being categorised as ineffective. Instead what is required is for the assumptions and limitations of the evaluations to be highlighted, rather than the ineffectiveness of policies.

At its most extreme, it is argued that policy impact cannot be decomposed into a set of simple metrics, implying that policymakers are faced with a limited set of choices, all of which can be assessed with certainty; instead, much remains uncertain in policymaking and any evaluation approach has to highlight these uncertainties.

A more nuanced critique is the lack of recognition given to the extent to which evaluation outcomes are influenced by context – both the period of time over which the evaluation is conducted and the individual national, regional or local circumstances in which the policies are delivered. The further critique is that it is inappropriate to evaluate the role played by individual programmes or policies when these are often only one of many macro or spatial factors influencing SMEs and entrepreneurship at a national or regional level. Instead, what has to be captured is the inter-dependence of these factors upon each other and how policy influences them as a whole – often referred to as the entrepreneurial ecosystem. Each of these points are now addressed in turn.

The role of context: time dimension

The time dimension has to be taken into account in assessing the impact of SME and entrepreneurship policy, in part because the outcomes from these policies are likely to vary with the duration of the programme. All else equal, we would expect that programmes which operate only for a short period of time would be both less likely to be evaluated, and less likely to produce positive results, compared with longer-run programmes. This is because, if the programme is clearly experiencing operational difficulties – most notably low "take-up" by participants – this is likely to lead to its early closure. A second reason is that policies and programmes are frequently cut short following a change of

government. This perhaps explains why, of the 50 evaluations reviewed in Part II, only 4 were of programmes having a lifespan of less than 2 years. Nevertheless, one of the reasons for some evaluations showing lack of impact on key objectives may be that the evaluation took place before enough time had been allowed for impacts to be achieved.

On the other hand, there are also reasons why evaluations of a programme over a short period of time may over-estimate results compared with evaluations undertaken over a longer period. This is because short-term evaluations cannot, by definition, fully capture the exit of firms or individual entrepreneurs from programmes – although that risk is extremely high[1]. There is therefore a real risk that short-term evaluations inflate the estimated impact (e.g. businesses established, jobs created) by including firms/individuals that will exit very shortly, and would have been excluded if the time period were longer. As was shown in Part II, business survival was taken into account only in 13 out of 50 evaluations. Moreover, of real concern is that accounting for exit varied by programme type – being particularly low in the finance and the local-area programmes. This could bias the comparison of the effectiveness of different types of policy intervention.

A further reason for taking full account of time is that, even where the above concerns are fully taken into account, programme impact itself can vary over time. For example, (Drews and Hart, 2015[4]) shows that a UK business advice programme had a modest immediate impact on survival. Over a two- to three-year period the sales and employment in assisted businesses rose, but productivity declined. By year seven there was no observable impact on any dimension.

It is therefore a valid criticism of evaluations that their findings are likely to be sensitive to the time period over which they, and the programme itself, are conducted. It is also valid to acknowledge that our current knowledge base is not sufficient to be clear on those performance metrics, perhaps other than survival, that are the most sensitive to time.

Our policy-related view is that short-life programmes lasting for less than 2 years should not be a priority for evaluation because their impact is very difficult to assess using reliable techniques. For the longer-duration programmes, evaluation findings become more robust with time. A useful rule of thumb is that, for most SME support programmes[2] it is valid to assess the impact of "treatment" after two years, on the grounds that making assessments prior to that time is likely to under-estimate exits and hence risks inflating the impact of the programme. However, the impact of time on other metrics – employment, sales or productivity – is less clear and needs to be explored.

The role of context: macro and spatial

It is important to recognise that the same policy can have very different outcomes in benign, compared with hostile, macro-economic conditions (Sedláček and Sterk, 2017[5]). Therefore, the period of time in which the policy is applied (recession/boom) may affect policy outcomes, and this could help explain why the estimated impacts of SME and entrepreneurship interventions vary widely in evaluation.

A second group of contextual factors influencing policy outcomes are the regional and local circumstances in which policy is delivered. These are relevant for national SME and entrepreneurship policies that are delivered without an explicit local/regional differentiation. Here programme and policy take-up rates may vary markedly between regions, and this needs to be taken into account in assessing impact. Evidence of this is documented most clearly in SME finance programmes such as loan guarantees (Cowling, 1998[6])[3].

However, the role of contextual factors is most relevant in explicit, place-based policies, in which SME and entrepreneurship policies seek to improve regional and local enterprise activity, including by increasing the performance of weaker regions and localities. The case for these policies is that, although the recipients are in the same country – making them subject to the same national macro-economic and institutional conditions – local conditions for SME and entrepreneurship development frequently

vary widely between areas. For example, a broad, long-standing, rule of thumb is that new firm formation rates in the highest region of a country are approximately three times that of the lowest region in the same country (Reynolds, Storey and Westhead, 1994[7])[4]. Place-based policies aim to improve the local or regional environment for SME and entrepreneurship development. In the area of start-ups and scale-ups, the "entrepreneurial ecosystem" concept is often used to identify, and then address, local bottlenecks across a set of inter-related influences such as culture, regulation, networks, leadership, finance and talent. This entrepreneurial ecosystem approach can "deliver holistic and stakeholder-driven interventions to improve local conditions." (Spigel, 2020[8]). However, it must also be recognised that the institutions and resources – both financial and non-financial – that SMEs and new businesses are aware of and able to draw upon are both extremely diverse and unevenly distributed spatially. These spatial differences may lead to mixed results from policy evaluations as they are applied in different parts of a country.

6.4. Are policy outcomes diverse because SMEs and entrepreneurs are diverse?

New and small firms are a highly diverse sub-group of the population of enterprises in a country. Although present in every major sector of the economy, their individual performance is considerably more diverse than for individual larger firms.

For example, an established rule of thumb is that each doubling of size reduces enterprise closure rates by 5% for enterprises up to 500 employees (Hart, 1998[9]). Once enterprises exceed this size, exit is unaffected. Public policies that focus on SMEs must therefore expect high closure rates – especially when the supported firms are both young and small. The problem for policy makers is that entrepreneurship policy may be seen to lack effectiveness if it supports many start-ups that subsequently have only a very short life.

A second source of diversity is that the performance – even of surviving SMEs – is highly variable over time. This implies that programme impacts will vary according to the firms and entrepreneurs targeted. Some, for example, generate much of their revenue in a single month, so requiring considerable financial skills to survive for the rest of the year (Lundmark et al., 2020[10]). Volatility of performance is associated not only with revenue and exit but also with expectations of the future. It has been shown that, again particularly amongst new and small firms, current performance is only a weak guide to future performance. Therefore, if current or prior fast growth were used as the sole basis for identifying future fast growth this would be a serious error[5].

A final issue is the diversity of the motivations of the owner(s) of new and small firms. Some seek to grow, whereas others do not. Some report being motivated by a desire for financial independence, others by a desire to avoid involvement with government. In contrast, the assumption that large enterprises seek to maximise shareholder value is more widely accepted. The implication for public policy of this diversity of motivations is that it also leads to a diversity of outcomes. Public policies designed to promote growth, for example, are likely to interest only the minority of new and small firms seeking to grow.

This diversity amongst new and small firms causes problems for governments seeking to help such enterprises. Because of the need to avoid public funds being used inappropriately, clear rules for eligibility for public support have to be drawn up in order to minimise the risk of fraud and avoid favouritism or discrimination. Unfortunately, the generality of these rules inevitably fails to capture the diversity of circumstances in which new and small enterprises find themselves, meaning many appropriate enterprises are excluded and some inappropriate ones included. A second problem, particularly characteristic of publicly-funded training programmes, is that the policy measures fail to

capture the highly individualistic circumstances in which individual enterprises find themselves. What is delivered is generic, rather than specific and hence less valued by the business owner.

Those formulating and delivering publicly-funded programmes to support SMEs, and new firms in particular, have to be alert to this diversity and to recognise that what might "work" with one group of firms, at one point in time, might not work consistently. Policymakers need to be keenly aware of such risks. As an example, selective policies targeted towards gazelles – the small proportion of those that grow exceptionally quickly – are risky but potentially productive. The risk comes from such firms only being clearly observable with hindsight; they are much less easily observable at start-up and also subsequently exhibit highly fluctuating rates of growth (Parker, Storey and van Witteloostuijn, 2010[11]). The benefit of such policies is, of course, their function as a "role model" and the credibility they provide for policymakers through this association.

If policymakers decide to concentrate support on such firms – referred to as selective policies – then a decision has to be made on when that support is to be provided; too early and it risks having little effect because most firms die early in life; too late and the firm no longer needs the support, which then becomes impossible to justify on market-failure grounds.[6]

In short, diversity amongst new and small firms is likely to be a powerful explanation for the "mixed" picture that emerged from the impact evaluations reported in Part II. A greater body of reliable evaluation evidence of the impact of selective policies and the impact of policies on different types of entrepreneur and SME will help better understand these issues and where SME and entrepreneurship policy interventions can be most effective.

6.5. Can the policy have unintended consequences?

A final issue is that of "unintended consequences". For example, many countries have developed policies to encourage the unemployed to start a business and these have been the subject of evaluation. These show that, although these policies may stimulate the unemployed individual to start a business, other businesses may suffer as a result of the (subsidised) competition from the new firm. For this reason, policy impact cannot be assessed solely by examining what happens to the subsidised businesses or their owners. Instead, impact has to take account of any "displacement[7]".

A second illustration is that policy may even have unintended consequences for the target group itself. For example, public subsidies to Korean manufacturing SMEs have been shown to encourage firms to keep below the SME size threshold in order to continue to be in receipt of the subsidy. This, so-called Peter Pan effect, is documented by (Choi and Lee, 2020[12]).

Policy makers and evaluators need to be aware of potential unintended consequences – positive or negative – and seek to pick them up through evaluation.

6.6. In summary

This chapter has explored a range of explanations for the mixed evaluation results on the impact of SME and entrepreneurship policy. It concludes that the most persuasive of these is the considerably greater diversity of the population of SMEs and entrepreneurs compared with large enterprises.

This implies a need to target and tailor SME and entrepreneurship policies so that they meet the highly-specific needs of different groups of SMEs and entrepreneurs. This is always likely to be problematic. Building a solid body of reliable evaluation evidence on the impacts of selective policies and programmes, in terms of the different populations they target and the different policy instruments they use, and on the impact of non-selective policies on different types of SMEs and entrepreneurs is critical

in the task of increasing the effectiveness of SME and entrepreneurship policies. It will provide evidence to help refine the focus of individual schemes towards where they can have the most impacts on the populations targeted and to refine the overall policy mix towards the policies that can have the greatest impacts by targeting the most significant problems facing the most impactful enterprises and entrepreneurs.

References

Acs, Z. et al. (2016), "Public policy to promote entrepreneurship: a call to arms", *Small Business Economics*, Vol. 47/1, https://doi.org/10.1007/s11187-016-9712-2. [2]

Arshed, N., S. Carter and C. Mason (2014), "The ineffectiveness of entrepreneurship policy: is policy formulation to blame?", *Small Business Economics*, Vol. 43/3, https://doi.org/10.1007/s11187-014-9554-8. [3]

Barrot, J. et al. (2019), "Employment Effects of Alleviating Financing Frictions: Worker-Level Evidence from a Loan Guarantee Program", *SSRN Electronic Journal*, https://doi.org/10.2139/ssrn.3409349. [13]

Caliendo, M., S. Künn and M. Weissenberger (2020), "Catching up or lagging behind? The long-term business and innovation potential of subsidized start-ups out of unemployment", *Research Policy*, Vol. 49/10, https://doi.org/10.1016/j.respol.2020.104053. [1]

Choi, M. and C. Lee (2020), "The Peter Pan syndrome for small and medium-sized enterprises: Evidence from Korean manufacturing firms", *Managerial and Decision Economics*, Vol. 41/3, https://doi.org/10.1002/mde.3111. [12]

Cowling, M. (1998), "Regional Determinants of Small Firm Loans under the U.K. Loan Guarantee Scheme", *Small Business Economics*, Vol. 11/2, https://doi.org/10.1023/A:1007956403565. [6]

Daunfeldt, S. and D. Halvarsson (2015), "Are high-growth firms one-hit wonders? Evidence from Sweden", *Small Business Economics*, Vol. 44/2, https://doi.org/10.1007/s11187-014-9599-8. [14]

Drews, C. and M. Hart (2015), "Feasibility Study – Exploring the Long-Term Impact of Business Support Services". [4]

Frankish, J. et al. (2013), "Do entrepreneurs really learn? Or do they just tell us that they do?", *Industrial and Corporate Change*, Vol. 22/1, https://doi.org/10.1093/icc/dts016. [17]

Fritsch, M. and S. Kublina (2019), "Persistence and change of regional new business formation in the national league table", *Journal of Evolutionary Economics*, Vol. 29/3, https://doi.org/10.1007/s00191-019-00610-5. [15]

Hart, P. (1998), "Job Creation and Destruction in the Corporate Sector: The relative importance of births, deaths and survivors", *National Institute of Economic and Social Research Discussion Papers*. [9]

Kobayashi, N. (2020), "A factor analysis of business start-up rates in Japan: contemporary and historical context", *Discussion Paper Series 202, School of Economics, Kwansei Gakuin University*. [16]

Lundmark, E. et al. (2020), "The Liability of Volatility and How it Changes Over Time Among New Ventures", *Entrepreneurship: Theory and Practice*, Vol. 44/5, https://doi.org/10.1177/1042258719867564. [10]

Parker, S., D. Storey and A. van Witteloostuijn (2010), "What happens to gazelles? The importance of dynamic management strategy", *Small Business Economics*, Vol. 35/2, https://doi.org/10.1007/s11187-009-9250-2. [11]

Reynolds, P., D. Storey and P. Westhead (1994), "Cross-national Comparisons of the Variation in New Firm Formation Rates", *Regional Studies*, Vol. 28/4, https://doi.org/10.1080/00343409412331348386. [7]

Sedláček, P. and V. Sterk (2017), "The growth potential of startups over the business cycle", *American Economic Review*, Vol. 107/10, https://doi.org/10.1257/aer.20141280. [5]

Spigel, B. (2020), *Entrepreneurial Ecosystems, Theory, Practice and Futures*. [8]

Notes

[1] The broad rule of thumb is that 40% of new firms cease to trade/ exit within three years (Frankish et al., 2013[17]).

[2] Clear exceptions might include enterprise education programmes in schools where there would be little expectation of impact in less than a decade.

[3] In France the Bpifrance loan guarantee programme, although national, is delivered differently in regions. See (Barrot et al., 2019[13]).

[4] This may have narrowed over time. In Japan in the early 1970s the normalised start-up rates varied across 47 prefectures from highest to lowest by 4.34. By 2012-14 the ratio was 1.85 (Kobayashi, 2020[16]). For Germany, normalised start-up rates in 2006-7 varied by a ratio of 2.41 (Fritsch and Kublina, 2019[15]).

[5] Evidence from Sweden identified 100 fast growth firms in 1999-2002. It found 2.6 – pro rata – were fast growth in the next three-year period and 0.003 in the next three year period (Daunfeldt and Halvarsson, 2015[14]).

[6] The late Michael Anyadike-Danes, in a private note to one of the authors, examined Exceptionally Productive Job Creators (EPJCs), defined as those with less than 5 jobs when born (Year 0) but which survived for 15 years and created more than 20 jobs. At that time these EJPCs provided 40% of all jobs, having comprised only 0.5% of all firms in Year 0. The chances of government selecting an EPJC in Year 0 would therefore be extremely low. If government decided to wait until year 5 to identify the EPJCs, this would be an improvement but would only raise the target group to 1.8%. Only if the government selected at Year 5 and chose only those firms that had already created 20 jobs, would it have a large population group to target (32% of cases).

[7] A full evaluation of such a programme would also take account of cases where the individual would have started the business, even in the absence of the subsidy – referred to as "deadweight."

7 What are the implications of the evaluation evidence for refocusing SME and entrepreneurship policy?

This chapter draws upon the evaluation evidence assembled in Part II of this Framework to provide guidance for policy makers on refocusing SME and entrepreneurship policy to where it can be most effective. It responds to the challenges described in chapter 6 by highlighting three policy choices. The first is the policy balance between “Hard” or “Soft” interventions. The second is the extent to which policy is selective – focusing on certain “types” of firms – or more wide ranging. The third is the extent to which the policy is a “Macro” or “Micro” intervention. Recommendations are made across these three themes.

As discussed previously in this report, the evaluation of SME and entrepreneurship policies remains incomplete and the findings, even from well-conducted studies, are mixed. More widespread and reliable evaluation evidence is needed to show where SME and entrepreneurship policy actions are the most effective and efficient. Nevertheless, in this less-than-perfect world we select, as illustrations, three important policy debates. These are the hard/soft debate, the selectivity debate, and the macro/micro debate. We offer our interpretation of how the findings from evaluations provide policymakers with insights that enable them to make better informed decisions in these areas.

7.1. Balancing "Soft" versus "Hard" support

Part II of this Framework drew a distinction between evaluation cases that related to "Hard" or "Soft" policies and programmes. "Hard" are defined as those where an actual or in-kind financial payment was made to an enterprise or individual – perhaps in the form of a grant, loan or tax relief. This contrasted with "Soft" policies, which comprised the provision of advice, coaching, mentoring and counselling or skills development and training.

In Part II, 33 programmes were defined as Hard, 11 were Soft and 6 were Both (mixing both Hard and Soft). Although the numbers were small, Soft programmes were more likely to be classified as having no/negative outcomes than the Hard programmes. Of the 6 evaluations with "no/negative" outcomes, 50% were Soft programmes, although they constituted only 22% of all programmes. The comparable figure for Hard programmes having no/negative outcomes was 2 out of 33 (6%). Finally, 1 out of the 6 mixed (both hard and soft) programmes had no/negative outcomes. The Hard programmes were more likely to have mixed impacts than the Soft programmes, although the share of positive outcomes amongst Hard and Soft programmes was equal in this small set of evaluations. The evidence is inconclusive, but points to the need for further comparative investigation.

In addition, there are some grounds for thinking that Soft programmes are less likely to be evaluated than Hard programmes, and that when they are examined, they are subject to less intense scrutiny. For example, Part I reported the findings of an international review of 66 Soft start-up support programmes for young people (Sara, 2016[1]). It found only one programme that clearly specified Objectives and Targets and used a reliable counter-factual evaluation. This lack of reliable evaluation may contribute to the fact that relatively few evaluations of Soft support programmes could be included in Part II, since only reliable evaluations are included.

It is not possible, on a limited set of diverse evaluations, to make any strong statement on the superiority of Hard over Soft programmes in promoting enterprise. Moreover, there is reliable evidence that, in some cases, they do "work" (Rotger, Gørtz and Storey, 2012[2]). Nevertheless, larger numbers of reliable evaluations are needed of Soft programmes to justify public expenditures when the possibility of no impact is present. This issue has continued to be a concern since it was observed in the original OECD evaluation framework (OECD, 2007[3]), pointing to an "unproven" verdict hanging over Soft programmes.

> Recommendation: Governments should look carefully, using at least Step V methods, at the impact of their existing, and any new proposed, "Soft" programmes.

7.2. Selecting programme participants and focusing on "Gazelles"

Part I reported that two findings persistently emerged from reviews of the performance of a cohort of new firms. The first is that short-run survival rates are low; the second is that, in the medium term, job creation is heavily concentrated in a small proportion of firms. The latter are popularly referred to as "High Potential Start-Ups", "Gazelles", "Winners" or "Exceptionally Productive Job Creators (EPJCs)". The standard "rule of thumb" is that 4% of new firms which start, provide 50% of the jobs in the cohort at the end of a decade. Unsurprisingly this statistic is of considerable interest to policymakers on the grounds that SME and entrepreneurship policy would be more cost-effective (if job creation is the sole objective) if it were focussed on the 4%, rather than on all start-ups.

There has been a healthy debate on the extent to which SME and entrepreneurship policy should focus on "winners". This includes exchanges on whether it is possible to identify the fast growers and on whether, once picked, they continue to grow as rapidly. The case in favour of focusing on winners is primarily based on avoiding public funds being used to finance businesses that clearly have low survival rates and little potential to grow (Acs et al., 2016[4]). The case against is based on the temporal volatility of new and small firms – so that fast growers in one period of time return to the industry average in the next period (Parker, Storey and van Witteloostuijn, 2010[5]), (Daunfeldt and Halvarsson, 2015[6]). Therefore, even if they wished to, it is currently very difficult for policymakers to identify fast-grower firms before they become successful.

As demonstrated by the policy evaluations reviewed in Part II, many SME and entrepreneurship policies are selective, focusing upon sub-groups of the population. The first group of selective policies are those where eligibility is determined by identifiable characteristics of the enterprise, such as its sector, age, location, etc. This has the advantage that allocating policy support based on such criteria is a relatively simple administrative task.

A second group are those discussed above – enterprises thought likely to exhibit exceptional growth in the future. Identifying and then allocating funding to enterprises on the grounds that they will survive and expand considerably in the future is currently the most problematic, but potentially the most rewarding area for policymakers. It is problematic because there is a real risk that public funding of such enterprises may have little or no impact if the "wrong" firms are selected. However, it may be expected that, as more reliable evaluations are more frequently conducted, this knowledge will lead to better selections.

A third, and very important form of selection, is based on the personal characteristics of either the owner(s) or potential owner(s). These include policies to assist owners who are young, women, or from an ethnic minority, or individuals who are unemployed for example. Assistance to this group is intended to support "inclusive entrepreneurship" (OECD, 2013[7]) (OECD/European Commission, 2021[8]). Our review of 50 evaluations in Part II contained eight evaluations of inclusive entrepreneurship programmes, demonstrating that this policy area is amenable to reliable evaluations.

> Recommendation: Evaluations should provide the evidence for making decisions on the scale and nature of selective support.

Furthermore, the presence or absence of a very small number of outstanding fast-grower firms among participants in a programme can have a strong influence on whether or not the programme is evaluated as having a positive impact, especially if it is a small-scale programme. However, this presence or absence can be affected by chance factors, given the infrequent probability of growers in the start-up population. Hence, the same result might not be achieved if the programme were repeated – as so much depends in a small-scale programme on the performance of the few. Not having a fast grower

could make a programme appear as unsuccessful, whereas the inclusion of even a single fast-growing firm could make the programme appear successful.

It appears that none of the 50 policy evaluations reviewed in Part II took explicit account of the role of supported business that grew exceptionally fast in the overall impact result.

> Recommendation: Evaluations should identify exceptional performers and the role such firms have in reaching a judgment on the overall effectiveness of a programme.

7.3. Macro policy choices: the role of institutional factors

Governments seeking to raise the quantity and quality of small business and entrepreneurship activity in their country have, open to them, a range of policy options. Thus far we have reviewed "Micro"-based policies directed towards specific groups of individuals or enterprises that, because of market failures or social inequality, are thought to benefit from public support – either Hard, Soft or Both. The basic rationale for such support, as documented in Part I, is that this leads to increased economic activity or amongst the recipients in the form of sales and employment which, in turn, stimulates economic activity amongst others, so providing social benefits.

A second approach is the "Macro" approach. This seeks to raise the quantity and quality of entrepreneurship and SME activity in a country by focussing upon the economic, cultural and social environment – often referred to as the institutional framework – in which enterprises start and operate (Aidis, Estrin and Mickiewicz, 2012[9]). This approach sees the national institutional environment as a powerful influence on the individual's decision to start a business and on the ability of the business to survive and grow. For example, the OECD/Eurostat Entrepreneurial Indicators Programme identifies the following key determinants of entrepreneurship in a country – the regulatory framework; research and development (R&D) and technology conditions; entrepreneurial capabilities; entrepreneurial culture; access to finance; and market conditions.[1] Crucially, unlike Micro policies, it does not focus upon tightly-defined groups of enterprises or individuals, but rather on the business environment for all SMEs and entrepreneurs. The inference is that it is the nature of institutions which, positively or negatively, influence both the scale and nature of entrepreneurship (Autio and Rannikko, 2016[10]) which, in turn, influences economic welfare (Thornton, Ribeiro-Soriano and Urbano, 2011[11])[38].

(Djankov et al., 2002[12]) were the first to identify and quantify the importance of one of the key institutional factors in the area of regulations – the costs and time taken to start a new (formal) business. They showed these were generally considerably higher in low-, than in high-, income countries. Since then, governments have sought to make it easier to "do business" by, for example, reducing the number of days required to register a business and lowering the costs of registration (i.e. a greater "ease" of doing business). Other institutional improvements have been introduced to assist SMEs and entrepreneurship by increasing the speed and efficiency of enforcement of legal and financial contracts. Improvements in governance are also expected to provide confidence to a potential new business owner.

Theorists, however, have argued that the scale and nature of entrepreneurship is influenced not only by formal, but also by informal institutions. By this they see belief systems, social norms and culture as powerful, albeit long-run, influences upon the willingness to start and operate an enterprise. A case has even been made that these exert a stronger influence than that of formal institutions (Thornton, Ribeiro-Soriano and Urbano, 2011[11]).

This institutional or Macro perspective offers potentially important, but not easy to accommodate, lessons for policymakers. This perspective – overlapping with the entrepreneurial ecosystem perspective – points to numerous factors influencing the scale and nature of entrepreneurship and SME development. Some are open to change in the short run, such as the cost and time taken to start a business. In contrast others – such as raising skills – can only be changed in the medium term. Finally, there are a group of potentially powerful influences that are extremely difficult to change, even in the longer run. There is currently no clear "route map" available to policymakers on how to change entrepreneurial culture as captured within the term "informal institutions".

The core challenge for most policymakers is to bring about an identifiable impact during the electoral cycle. Inevitably this sees a concentration on the short- rather than medium- or long-run. Unfortunately, the evidence is that entrepreneurship rates change only slowly, except in the face of shocks such as macro-economic downturns (OECD, 2023, forthcoming[13]). Finally, many of the "easy wins", such as regulatory improvements making it easier to start a business, have already been taken in recent years.

A further concern is that the science underpinning policy in this area remains under debate. For example, although there is a correlation between entrepreneurial culture and entrepreneurship activity it is less clear which causes which. For that reason, it is difficult to prescribe how policy makers should proceed when seeking to bring about a change in culture that, in turn, will raise entrepreneurship.

Because of the potential importance of all these issues, combined with the weak evidence base, there is a strong case for collaboration across governments. This might involve governments pooling their data and their knowledge on the influence of Macro issues and policies on entrepreneurship outcomes.

An example would be to review the full range of public services and examine their impact – both positive and negative – upon SMEs and entrepreneurship. It is important to include the full range of public services since some are not normally seen as SME relevant, yet can have a major impact on SMEs. A clear example is petty crime law-enforcement which has a considerable impact on SMEs (Drinkwater, Lashley and Robinson, 2018[14])]. High local crime rates, for example, can have a major negative influence on the ability of SMEs to trade productively.[2]

Indeed a case can be made that virtually all publicly-provided public services influence the scale and nature of entrepreneurship in a country or region. The education system in a country, for example, is frequently argued to influence subsequent employment choices of students – perhaps favouring low-risk employment over high-risk business ownership (Drinkwater, Lashley and Robinson, 2018[14]). For this reason many countries have implemented programmes to raise awareness of entrepreneurship amongst those yet to enter the labour force (Fayolle, 2013[15]).

Recommendation: Governments should review the role played by "Macro" policies.

References

Acs, Z. et al. (2016), "Public policy to promote entrepreneurship: a call to arms", *Small Business Economics*, Vol. 47/1, https://doi.org/10.1007/s11187-016-9712-2. [4]

Aidis, R., S. Estrin and T. Mickiewicz (2012), "Size matters: Entrepreneurial entry and government", *Small Business Economics*, Vol. 39/1, https://doi.org/10.1007/s11187-010-9299-y. [9]

Autio, E. and H. Rannikko (2016), "Retaining winners: Can policy boost high-growth entrepreneurship?", *Research Policy*, Vol. 45/1, https://doi.org/10.1016/j.respol.2015.06.002. [10]

Daunfeldt, S. and D. Halvarsson (2015), "Are high-growth firms one-hit wonders? Evidence from Sweden", *Small Business Economics*, Vol. 44/2, https://doi.org/10.1007/s11187-014-9599-8. [6]

Djankov, S. et al. (2002), "The regulation of entry", *Quarterly Journal of Economics*, Vol. 117/1, https://doi.org/10.1162/003355302753399436. [12]

Drinkwater, S., J. Lashley and C. Robinson (2018), "Barriers to enterprise development in the Caribbean", *Entrepreneurship and Regional Development*, Vol. 30/9-10, https://doi.org/10.1080/08985626.2018.1515821. [14]

Fayolle, A. (2013), "Personal views on the future of entrepreneurship education", *Entrepreneurship and Regional Development*, Vol. 25/7-8, https://doi.org/10.1080/08985626.2013.821318. [15]

Ganau, R. and A. Rodríguez-Pose (2018), "Industrial clusters, organized crime, and productivity growth in Italian SMEs", *Journal of Regional Science*, Vol. 58/2, https://doi.org/10.1111/jors.12354. [16]

OECD (2019), *OECD SME and Entrepreneurship Outlook 2019*, OECD Publishing, Paris, https://doi.org/10.1787/34907e9c-en. [17]

OECD (2013), "Entrepreneurial Activities in Europe: Evaluation of Inclusive Entrepreneurship Programmes", *OECD Employment Policy Papers* 4, https://doi.org/10.1787/5jxrcmkm81th-en. [7]

OECD (2007), *OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes*, OECD Publishing, Paris, https://doi.org/10.1787/9789264040090-en. [3]

OECD (2023, forthcoming), "Leapfrogging and Plunging in Regional Entrepreneurship Performance: US and European Comparison", *OECD SME and Entrepreneurship Papers*. [13]

OECD/European Commission (2021), *The Missing Entrepreneurs 2021: Policies for Inclusive Entrepreneurship and Self-Employment*, OECD Publishing, Paris, https://doi.org/10.1787/71b7a9bb-en. [8]

Parker, S., D. Storey and A. van Witteloostuijn (2010), "What happens to gazelles? The importance of dynamic management strategy", *Small Business Economics*, Vol. 35/2, https://doi.org/10.1007/s11187-009-9250-2. [5]

Rotger, G., M. Gørtz and D. Storey (2012), "Assessing the effectiveness of guided preparation for new venture creation and performance: Theory and practice", *Journal of Business Venturing*, Vol. 27/4, https://doi.org/10.1016/j.jbusvent.2012.01.003. [2]

Sara, R. (2016), *Start-Up Support for Young People in the EU: From Implementation to Evaluation*, Eurofound. [1]

Thornton, P., D. Ribeiro-Soriano and D. Urbano (2011), "Socio-cultural factors and entrepreneurial activity: An overview", *International Small Business Journal*, Vol. 29/2, https://doi.org/10.1177/0266242610391930. [11]

Notes

[1] The OECD SME and Entrepreneurship Outlook (OECD, 2019[17]) similarly focuses on a set of national institutional conditions affecting SME performance – namely institutional and regulatory framework; market conditions; infrastructure; access to innovation assets; access to skills; and access to finance.

[2] This has been most extensively documented in Italy [(Ganau and Rodríguez-Pose, 2018[16])]

8 What needs to be improved in SME and entrepreneurship policy evaluation?

This chapter focuses on drawing the lessons from the review of evaluations in Part II for the conduct of evaluations and for commissioning of evaluations by policymakers. It covers the importance of: i) increasing the number of evaluations that are conducted; ii) clearly specifying the Objectives and Targets of policy at the outset to facilitate evaluations; iii) making greater programme expenditure information available to facilitate cost-effectiveness assessments; iv) exploiting new evaluation techniques and data; v) increasing evaluation co-ordination and coherence; and vi) strengthening the international exchange of information on evaluation results. The chapter includes recommendations in these areas.

This chapter acknowledges that the technical practice of SME and entrepreneurship policy evaluation has improved considerably during the 15 years or so since the first OECD SME and entrepreneurship policy evaluation framework (OECD, 2007[1]), and that there are now many more examples of high-quality evaluations, although reliable evaluation evidence is still lacking in the field.

As shown in Part II, these evaluations point to mixed evidence on the impact of policy, with less than half of our 50 reviewed evaluations showing an overwhelmingly positive impact across a range of indicators, and the remainder showing either impacts on only some of their chosen indicators or no impacts or negative impacts. As discussed in chapter 7, the divergences in outcomes may reflect a number of aspects of policy targeting, design, context and so on. Taking account of these influences will ultimately strengthen SME and entrepreneurship policy overall. However, learning from evaluation evidence on policy success factors will only become more reliable with improvements in the scale, frequency, coverage, focus and technical quality of policy evaluations in this field.

With this background, this chapter therefore sets out a forward agenda for SME and entrepreneurship policy evaluation. It stresses the importance of increasing the scale of evaluation, exploiting available techniques and data, clearly specifying Objectives and Targets, increasing information available to evaluators on programme expenditure, and developing cross-government co-ordination in evaluation.

8.1. Increasing the scale of evaluation

Reliably-conducted evaluations provide crucial insights into the impact of SME and entrepreneurship policies. Ideally governments would be able to compare the effectiveness of different policies with the aim of redistributing funding away from the less effective, and towards the more effective, policy areas. Unfortunately, reliable evaluations in most countries remain the exception rather than the rule. It is important to increase the coverage of SME and entrepreneurship policy evaluation in order to assess where policy is the most effective and to balance policy across the portfolio, as well as to provide policy learning and accountability for each individual programme.

> Recommendation: Every three years, all major SME and entrepreneurship programmes should be the subject of a reliable evaluation, defined as a minimum of Step V, only the very "short-lifers" being excluded.

8.2. Exploiting new techniques and data

There have been two important changes over the last 15 years which enable evaluations to be undertaken more easily and more reliably than in the past. The first is the advance in analytical techniques and the second is the arrival of "big data". High quality evaluations can now be undertaken much more easily and more quickly both within government and/or commissioned from outsiders. Because they can be delivered more quickly this makes them more relevant for current policy decisions.

As an example, we noted in Part I the increased use of Randomised Control Trials (Roper, 2020[2]). This is deemed to be the Gold Standard for ensuring that any observed improvements in the performance of firms or individuals within a programme are legitimately attributed to the programme alone.

As another example, although initially limited to the Nordic countries, there are now several examples of other countries opening up government datasets, collected for a variety of different purposes, and

enabling them to be used for evaluation purposes. For example, (Barrot et al., 2019[3]) use administrative microdata extracted from the tax files of the French Ministry of Finance for corporate tax collection purposes covering the universe of French firms. The data are not publicly available, but are available for academic research through a procedure similar to accessing Census data in the USA and the UK. (Barrot et al., 2019[3]) then link this information on firm performance to data on firms using and not using the Loan Guarantee Programme, enabling the creation of treatment and control groups.

> Recommendation: Governments should investigate the use of the data they collect for tax and other purposes with a view to making it more widely available to those conducting policy evaluations.

In making this recommendation it is vital to emphasise that appropriate confidentiality safeguards have to be in place.

8.3. Specifying Objectives and Targets

Part II also re-emphasised the importance of clarity in the specification of Objectives and Targets for evaluation, which was initially introduced in Part I. It showed that the Objectives (the desired outcome, e.g. in terms of increased start-ups, sales, or employment) and Targets (the scale of the change targeted, e.g. in numbers of additional start-ups, sales or employment by a given timescale) were often not adequately specified, so that an assessment of policy impact against policy intentions would be difficult or impossible.

Recalling that the 50 evaluations we documented in Part II can be considered as exemplars in many respects, it was disappointing that only 1 out of the 50 clearly specified Objectives and Targets.[1] Much more typical was that policy Objectives were specified, but expressed in a form that made a careful assessment of impact difficult to conduct. In other cases, the Objectives were never specified by the policymakers themselves, leaving them to be inferred by those undertaking the evaluation.[2] A final group were those where the Objectives that were specified were so numerous, but lacking in priority, that some element of the programme was almost certain to emerge as successful. This made it close to impossible to identify the circumstances in which the policy could ever be viewed as either clearly successful or clearly unsuccessful. The overriding picture is that policies frequently succeed on some objectives but not on others, as captured our frequently used description of the evidence as “mixed”.

It is therefore important that government specifies a small number of priority Objectives for their SME and entrepreneurship policy evaluations. If these core Objectives are common across policy areas, then comparison of programme performance on key government priorities is possible.

Policymakers with responsibility for SME and entrepreneurship policy are continually faced with choices. These might be between the provision of “Hard” assistance – such as loans/grants – or “Soft” assistance such as advice/training. They also face choices over the sectors where this assistance is to be provided – e.g. high-tech or personal services. A third choice might be over policies open to all enterprises or individuals (entrepreneurs or potential entrepreneurs), compared with those that select specified groups.

Evaluations can play a key role in assisting such choices, but only when the metrics upon which policy effectiveness is judged are clearly specified. Without these “common” metrics it is very difficult for the outcomes from different policies to be compared. We recommend establishing three core metrics, corresponding to key common Objectives and Targets that governments have for SME and

entrepreneurship policy interventions – namely change in Sales, Employment and Survival in supported enterprises.

> Recommendation: Three core metrics – Sales, Employment and Survival – should be specified and assessed in all evaluations. These can be complemented with additional measures for other objectives, where targeted, such as environmental and social benefits.

These three core metrics can be supplemented by other metrics appropriate for a specific policy area – such as patents for Innovation evaluations, or wages for Enterprise Culture and Skills or Areas of Disadvantage evaluations. However, as their name implies, these metrics should be regarded as supplementary and not as alternatives to the three core metrics.

A common set of enterprise metrics enables policymakers to compare how far different policies achieve these Objectives and Targets. So, for example, job creation in areas of disadvantage might be enhanced by a range of policies such as improving access to finance, by the provision of free business advice, or by programmes to enhance enterprise culture. By specifying the core metrics, and then undertaking evaluations, policy makers are able to assess the job-creation impact of each of the three approaches, and which is most effective.

Clearly, the priorities and preferences of governments need to be taken into account when comparing the effectiveness of different policy measures, since an acceptable cost per job created, for example, might be higher in a context of disadvantaged places or disadvantaged entrepreneurs.

8.4. Increasing information on programme expenditure

Making a judgement on the cost-effectiveness of different approaches requires data on programme expenditure as well as programme impacts. However, expenditure on SME and entrepreneurship policy – both on individual programmes and in aggregate – is frequently difficult to identify. Unfortunately, in 10 out of the 50 cases reviewed in Part II, this information was unavailable. It is possible that in some cases the information was available within government and not to outsiders but, even so, this is a serious information deficiency.

> Recommendation: Expenditure data should be made available to policymakers for each policy measure to facilitate cost-effectiveness assessments.

8.5. Increasing evaluation co-ordination and coherence

The patchy information on the cost of individual policies and programmes noted above is replicated for data on the aggregate cost of SME and entrepreneurship policy. Many parts of government undertake policies and programmes that aim to promote SMEs and entrepreneurship. However, there is commonly little overview of the total policy effort devoted to this policy area (compared for example to other countries, or the priority placed on SMEs and entrepreneurship by the government) or of the relative effectiveness of the different measures pursued that would help steer the overall policy mix.

A study by (Lundström et al., 2014[4]) examined Sweden in detail, together with more limited coverage of Poland, Austria and the Flanders region of Belgium. It confirmed the findings of an earlier UK review that this expenditure was considerable – for example exceeding that on the police or universities in some countries – yet it was not the responsibility of a single ministry/department of government. There was no part of government with the authority to assess the cost-effectiveness of policies by being able to compare, for example, the policy impact per unit of expenditure on business advice with loan guarantee programmes for supporting SME survival and growth. In part, but not exclusively, this was because virtually all ministries/departments of government had their own programmes to promote enterprise – with these programmes frequently working independently of other parts of government.

In addition to systematically collecting and sharing information on policy expenditures on SMEs and entrepreneurship across government, the objective of achieving greater coherence and effectiveness of the policy portfolio would be served by establishing a central monitoring and evaluation unit for SME and entrepreneurship policy. Such a central monitoring and evaluation unit would work with all relevant ministries/departments and government bodies to identify the objectives, targets, expenditures, activities, and impacts of SME and entrepreneurship policy measures wherever they are undertaken. It would develop a management information system to track policy and a system of focal points in different ministries and government bodies to share information.

Recommendation: Governments should establish a central monitoring and evaluation unit and a co-ordination process for the monitoring and evaluation of SME and entrepreneurship policy across government ministries and bodies.

8.6. Developing international exchange of information on evaluation results

Evaluation evidence should be a key guide to policy development in SME and entrepreneurship policy. Relevant evaluations of new policy initiatives under consideration by a particular government or government agency may already have been undertaken in many countries, and a rich base of evaluation evidence across different types of policy intervention and different contexts of application can best be built up internationally.

The OECD's Committee on SMEs and Entrepreneurship (CSMEE) can play a vital role in sharing information internationally from reliable SME and entrepreneurship policy evaluations. First, it can expand the international database of impact evaluation results and make it accessible to policy makers. Second, it can support countries in developing their own evaluation frameworks and in setting up processes to gather reliable impact evaluation evidence in their own contexts.

Recommendation: Lessons from reliable evaluations should be shared between countries, with the OECD's Committee on SMEs and Entrepreneurship (CSMEE) being an ideal vehicle for facilitating this exchange.

References

Barrot, J. et al. (2019), "Employment Effects of Alleviating Financing Frictions: Worker-Level Evidence from a Loan Guarantee Program", *SSRN Electronic Journal*, https://doi.org/10.2139/ssrn.3409349. [3]

Lundström, A. et al. (2014), "Measuring the Costs and Coverage of SME and Entrepreneurship Policy: A Pioneering Study", *Entrepreneurship: Theory and Practice*, Vol. 38/4, https://doi.org/10.1111/etap.12037. [4]

OECD (2007), *OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes*, OECD Publishing, Paris, https://doi.org/10.1787/9789264040090-en. [1]

Roper, S. (2020), "Using RCTs as a research method for SME policy research: The UK experience", in *Handbook of Quantitative Research Methods in Entrepreneurship*, https://doi.org/10.4337/9781786430960.00012. [2]

Notes

[1] i.e. obtained our highest score on our Objectives Specification Score by setting objectives, indicators, milestones and target values (see Table 4.1).

[2] We recognise that in some cases there may have been targets but these never entered the public domain.

9 What issues did COVID-19 SME and entrepreneurship support highlight for evaluation?

This chapter turns to the specific issue of assessing the impacts of government emergency support measures for SMEs and entrepreneurship during the COVID-19 crisis and learning the lessons for future crisis support. It begins by discussing the impact of the COVID-19 crisis on SMEs and entrepreneurship and highlighting the SME and entrepreneurship support measures that were introduced, covering labour support measures, deferrals of payments to governments, financial instruments and structural policies. The chapter then identifies three evaluation lessons for government crisis measures highlighted by the COVID-19 policy response – the need to specify objectives, identify expenditures, and evaluate impacts. It also makes a call for internationally co-ordinated evaluation of the crisis response.

This chapter examines the role of SME and entrepreneurship policy evaluation in guiding government policy responses to economic crises. There have been at least two global crises in recent decades that have required an important government SME and entrepreneurship policy response, notably the Global Financial Crisis of 2008-10, and the COVID-19 crisis, which started in 2020 and is still ongoing. More recently, measures have been introduced to support SMEs and entrepreneurs through the supply chain, trade and energy and commodity price disruptions of Russia's large-scale aggression against Ukraine. Governments may also face the need to respond to more local shocks, including natural disasters. Governments need to be ready to introduce appropriate policy measures rapidly and effectively when such crises emerge.

The chapter makes the case that SME and entrepreneurship policy evaluation should play a central role in guiding government policy responses to major economic shocks. Evaluation has two crucial roles. The first is to help select policies that can be introduced quickly and successfully by drawing on knowledge of what has worked in the past. The second is to review, as they unfold, the relevance, effectiveness and efficiency of the policy responses to the shock, using evaluations of the new interventions introduced. This is needed both to adjust ongoing policies in the short term and to add to the evaluation evidence base for the future.

The chapter focuses on the example of the SME and entrepreneurship policy responses to the COVID-19-induced global economic shock. We argue that an effective evaluation of the medium- and long-term impacts of the COVID-19 support measures should be introduced in coming months. We also highlight weaknesses in terms of building in an evaluation component to the COVID-19 measures as they have been applied to date, which will need to be corrected for future crisis responses. The key issues involve setting clear objectives, identifying expenditures clearly and developing a programme to analyse appropriate data on SME and entrepreneurship activity.

There is strong merit in co-ordinating evaluation exercises and sharing information on evaluation results on government responses to crises at an international level. This could include an international exercise linking the broad scale and nature of the COVID-19 SME and entrepreneurship policy response in different countries to data on SME and entrepreneurship performance in these countries, including SME employment, sales, productivity and survival, and new firm entry.

Overall, the chapter argues that government crisis response measures, and hence the resilience of SME and entrepreneurship activity, and the economy as a whole, could be developed more quickly and cost-effectively by drawing on evaluation evidence from responses to previous shocks in their design and implementation. Evaluation should therefore be built into all government SME and entrepreneurship crisis response measures.

9.1. The impact of the COVID-19 crisis on SMEs and entrepreneurship

From early 2020, the COVID-19 crisis, and particularly the associated public health interventions such as social distancing ("lockdowns"), put the economy on hold and plunged the world into a deep recession. At the nadir of the crisis in Q2 2020, GDP across OECD countries was 11.6% lower than during the same period the previous year, although the gap reduced to 3.8% in the third quarter (OECD, 2021[1]).

While firms of all sizes were impacted – either directly or indirectly – SMEs were hit particularly hard given their overrepresentation in sectors that were most exposed to the containment measures (OECD, 2021[1]). Examples include the wholesale and retail trades, accommodation and food services, real estate, professional services, and other personal services (e.g. hairdressing).

The crisis triggered a major shock to the financial liquidity of SMEs and entrepreneurs. The survival of an SME depends heavily upon its short-term cash flow, because most lack the cash buffers on which

larger firms can draw (Lundmark et al., 2020[2]). The, even temporary, disruption to cash flow caused by lockdowns disproportionately affects SMEs, compared with larger firms. Added to this were supply-chain disruptions, uncertainty for an extended period and a shift in demand from physical contact to e-commerce. These all presented significant challenges to SMEs and entrepreneurs.

COVID-19 not only threatened the survival of existing SMEs but also could be expected to influence business start-up decisions. Some people might decide to postpone or cancel their venture until circumstances change. This may well be a wise decision since recent studies have shown that, even in the long-run, new firms that begin in recessions under-perform those starting in more buoyant conditions ((Sedláček and Sterk, 2017[3])). Others however might take the view that a lack of alternative income and employment opportunities means that starting their own business is the "least-bad" option open to them during difficult economic periods. Once again, the evidence on the impact of recessions on start-up rates is mixed but, after a thorough review, (Parker, 2018[4]) concludes that, when unemployment rises, so do rates of business creation – the recession-push effect. However, the "quality" of these start-ups is lower – in line with (Sedláček and Sterk, 2017[3]).

Available data indicate that SMEs were strongly affected by the crisis in terms of growth and liquidity, with 33-50% of surviving SMEs experiencing a fall in sales of more than 40% (OECD, 2021[1]). However, the major wave of bankruptcies that was initially feared did not come to pass (OECD, 2021[1]). At the same time, business creation rates were relatively robust in the face of the COVID-19 crisis. The number of firm entries rebounded after an initial drop upon the onset of the pandemic in 2020, although the pace and strength of this recovery varied across countries (OECD, 2021[5]). These outcomes are likely to result both from the adaptability of SMEs and entrepreneurs in transitioning to new operating practices, modes of working and markets, as well as the policy support measures introduced.

9.2. The COVID-19 SME and entrepreneurship policy response in OECD countries

Governments were very active in seeking to support SMEs and start-ups from the beginning of the COVID-19 crisis, as of the first quarter of 2020. As set out in (OECD, 2020[6]), the responses frequently followed the following sequence:

- Health measures and information to SMEs on how to adhere to them.
- Measures to address liquidity by deferring payments.
- Measures to supply extra and more easily available credit to strengthen SME resilience.
- Measures to avoid or mitigate the consequences of un-organised layoffs by extending possibilities for temporary redundancies and wage subsidies.
- Structural policies to help SMEs fast track recovery and enhance long term resilience and growth.

Nevertheless, there were wide variations across countries in the scale, mix and timing of the measures introduced, reflected in part by the severity of the COVID-19 pandemic.

Governments typically pursued a mix of policy measures dedicated towards, or available for, SMEs and/or start-ups (OECD, 2021[7]). These include:

- Labour support measures – wage support to compensate employees for reduced working hours and temporary redundancies, financial support to compensate for sick leave, and support to maintain the incomes of the self-employed.
- Deferrals of payments to government and government-owned organisations – deferrals of income and corporate tax payments, value added tax, social security and pension payments,

debt payments and rent, utility and local tax payments and accelerated payments of public procurement contracts.

- Financial instruments – extended and simplified loan guarantees, direct lending through public institutions, grants and subsidies, and support for non-banking finance, e.g. equity funds. These measures, together with a surge in the demand for loans given the difficult economic conditions, meant that many countries saw an increase in SME lending in 2020 (OECD, 2022[8]).
- Structural policies to strengthen SMEs and entrepreneurship in the recovery – advice and support to find new and alternative markets, introduce teleworking and digital technologies, innovate in new products and services, train and redeploy workforces, support start-ups, and modify insolvency and bankruptcy regimes to give firms breathing space.

Table 9.1 provides an overview of the measures that had been introduced by July 2020. They are placed in four groupings: Labour-related; Deferrals; Financial instruments and Structural interventions. Although there was some diversity between countries, wage subsidies were widely provided, as were tax deferrals. Finally, we see that direct lending to SMEs was widespread with only nine countries having no such programmes.

This re-emphasises the importance that SMEs and entrepreneurship play in economies and the role that they are expected to play in the recovery from COVID-19. It is important to note that the emphasis is placed on what we refer to elsewhere as “Hard” support; in contrast there is limited “Soft” support in the form of advice and training.

Table 9.1. Overview of COVID-19 SME and entrepreneurship policy responses

	Labour			Deferral					Financial instruments			Structural policies			
	(Partial) redundancies	Wage subsidies	Self-employed	Income/ corporate tax	Value Added Tax (VAT)	Social security and pension	Rent/utilities/ local tax	Debt moratorium	Loan guarantees	Direct lending to SMEs	Grants and subsidies	New markets	Teleworking/ digitalisation	Innovation	Training and redeployment
Argentina		✓	✓	✓	✓	✓			✓	✓		✓	✓		
Australia		✓	✓	✓				✓	✓	✓	✓				✓
Austria	✓	✓		✓		✓	✓	✓	✓	✓	✓		✓		
Belgium	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓			
Brazil	✓	✓		✓		✓		✓		✓					
Canada	✓	✓	✓	✓	✓		✓	✓		✓		✓			
Chile		✓	✓	✓	✓		✓		✓		✓	✓	✓		
China		✓		✓		✓	✓	✓		✓	✓		✓	✓	✓
Colombia		✓		✓	✓		✓	✓	✓	✓					
Costa Rica	✓			✓	✓				✓	✓					✓
Croatia		✓		✓		✓		✓		✓					
Czech Republic		✓		✓			✓	✓	✓	✓	✓	✓		✓	
Denmark		✓	✓	✓	✓			✓	✓		✓			✓	✓
Egypt				✓			✓	✓							
Estonia		✓	✓	✓		✓			✓	✓			✓		
Finland	✓		✓	✓	✓				✓		✓			✓	
France	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Germany	✓	✓	✓	✓					✓	✓	✓		✓	✓	
Greece		✓	✓	✓	✓	✓			✓	✓			✓		
Hong Kong, China				✓				✓	✓	✓					

	Labour			Deferral					Financial instruments			Structural policies			
	(Partial) redundancies	Wage subsidies	Self-employed	Income/ corporate tax	Value Added Tax (VAT)	Social security and pension	Rent/utilities/ local tax	Debt moratorium	Loan guarantees	Direct lending to SMEs	Grants and subsidies	New markets	Teleworking/ digitalisation	Innovation	Training and redeployment
Hungary	✓	✓	✓	✓		✓	✓	✓	✓	✓					
Iceland		✓		✓	✓				✓	✓					
India		✓		✓						✓					
Indonesia		✓		✓	✓					✓	✓		✓		
Ireland	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓
Israel	✓	✓	✓		✓	✓	✓	✓	✓						
Italy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Japan	✓	✓		✓			✓		✓	✓	✓	✓	✓	✓	✓
Korea		✓	✓					✓	✓	✓	✓	✓	✓	✓	✓
Latvia	✓	✓		✓				✓	✓	✓			✓	✓	
Lithuania		✓		✓			✓		✓	✓					
Luxem-bourg	✓	✓	✓	✓	✓				✓	✓					
Malaysia		✓		✓				✓	✓	✓	✓		✓		✓
Mexico		✓						✓		✓					
Nether-Lands	✓	✓	✓	✓	✓			✓	✓	✓	✓				
New Zealand		✓		✓			✓			✓		✓			✓
Norway	✓	✓	✓	✓	✓	✓			✓		✓			✓	✓
Peru		✓		✓	✓				✓	✓					
Poland		✓	✓	✓		✓			✓	✓				✓	
Portugal	✓	✓		✓	✓	✓			✓	✓		✓			✓
Romania		✓		✓			✓	✓	✓	✓					
Russia		✓	✓	✓		✓		✓		✓					
Saudi Arabia		✓						✓	✓	✓					
Singapore		✓	✓	✓			✓		✓	✓				✓	
Slovak Republic	✓	✓	✓	✓					✓		✓				
Slovenia		✓	✓	✓			✓	✓	✓	✓		✓	✓		
South Africa		✓		✓				✓		✓		✓			
Spain	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓		
Sweden	✓	✓	✓	✓	✓	✓	✓		✓	✓					
Switzerlan d	✓	✓							✓	✓		✓			
Thailand		✓	✓	✓	✓	✓	✓			✓				✓	✓
Turkey	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓				
United Kingdom	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓	
United States		✓	✓	✓						✓	✓			✓	
Vietnam		✓		✓	✓	✓	✓								

Source: (OECD, 2020[6]) Policy Responses towards SMEs in the Context of the COVID-19 Virus Outbreak.
Disclaimer: This table has been prepared based on official sources and media reporting. Given the rapid developments of events and measures, the information in the table may not be comprehensive or fully up to date. It will be updated periodically.

Initially, COVID-19 policies and programmes placed a strong focus on supporting SMEs to weather and survive the crisis, with relatively little emphasis on supporting start-ups. Indeed, only 10% of SME-focused policies in COVID-19 rescue packages were targeted at start-ups or entrepreneurs (OECD, 2022[9]). However, in later measures (recovery packages) somewhat greater attention was placed on structural reform, including support for business start-up (OECD, 2021[7]). Furthermore, certain groups often fell through the cracks of the emergency support, such as the self-employed with irregular or low incomes, recent start-ups and women entrepreneurs (OECD/European Commission, 2021[10]).

The total scale of support to SMEs and entrepreneurs appears to have varied strongly by country and there were also differences in the likelihood of different firms receiving support. In particular, younger and smaller SMEs were less likely to receive government support (OECD, 2023, forthcoming[11]). Governments are expected to gradually phase out these COVID-19 support packages.

9.3. Drawing the evaluation lessons from the COVID-19 policy response

It is critical to evaluate the impacts of the COVID-19 policy responses on SMEs and entrepreneurship to establish what worked and what did not work, effectively and efficiently, in achieving government objectives. However, applying the earlier guidance of this Framework to the case of the COVID-19 interventions leads us to identify three areas where the policies could have been better evaluated. These can be taken as three lessons for ongoing evaluation of the COVID-19 SME and entrepreneurship response measures and for the implementation of any future SME and entrepreneurship crisis responses.

Lesson 1: Objectives and Targets were often not clearly specified for the COVID-19 policy responses

A core message from our review of SME and entrepreneurship policy evaluations is that the Objectives and Targets of policy are often not clearly specified, making it difficult to evaluate policy effectiveness. This problem also appears to affect the SME and entrepreneurship policy measures rapidly introduced to deal with COVID-19, although it does not need to be the case for the medium- and longer-term measures aimed at strengthening the SME sector and promoting successful entrepreneurship in ongoing recovery packages.

Box 9.1 below suggests a range of possible Objectives but, because these are frequently in conflict with each other, it is important to clarify which take precedence and under what circumstances.

Box 9.1. Potential Objectives of COVID-19 SME and entrepreneurship policy responses

1. To reduce unemployment in the short run.
2. To save all existing businesses.
3. To save those businesses which, prior to COVID-19, were viable.
4. To replace those businesses that have exited.
5. To renew with “better” businesses.
6. To see the response to the COVID-19 crisis as an opportunity to eliminate the low-productivity tail that characterises SMEs.

The aim of reducing unemployment in the short run (Objective 1) is a powerful influence on COVID-19 policy, but seeking to do this by saving all existing businesses (Objective 2) is likely to be expensive

and also perhaps even undesirable on the grounds that many of these businesses would have exited without COVID-19. The currently favoured alternative – (Objective 3) – appears to be to save "viable" existing businesses, with such businesses being selected based upon the sector in which they trade.

The evaluation evidence in this report points to sector being only one of many influences upon the performance of an SME, implying that a sector-based approach is likely to be a crude tool for allocating funds. A clear alternative strategy is to focus less on the saving of SMEs and instead to focus on replacing those that have exited with new, and hopefully more dynamic, enterprises (Objective 4). The problem here is that, as noted above (Sedláček and Sterk, 2017[3]), new firms that begin in a recession have a relatively poor longer-run performance.

For this reason, policymakers might seek to be more selective about the firms they choose to support, by focusing on "better businesses" (Objective 5). Assuming that "better businesses" means those that are more likely to survive and prosper in a post-COVID-19 economy, the evidence from the evaluations reported here suggests that identifying such firms – particularly when the firm is new – is very difficult. These difficulties multiply when the key characteristics of the post-COVID-19 economy which they are entering are unclear[1]. However, as with Objective 3, governments should be making selection decisions based upon evaluation evidence.

A final, and radical, policy option is to acknowledge that recessions exercise a major "cleansing" role by eliminating businesses that become unprofitable once the recession is over (Objective 6). An example from COVID-19 might be the rise of on-line shopping which, if permanent, could lead to the closure of shops but an increase in transport-related suppliers.

The six Objectives set out above clearly imply very different policy responses. Each has both advantages and disadvantages and so imply the need to make political choices. For this reason alone, it is vital to be clear about – an ideally provide a rationale for – the Objectives of policy.

These Objectives are however incomplete unless also accompanied by a clear Target and a clear timescale for their completion. Examples of possible Targets and timescales are provided in Box 9.2. It draws a distinction between short- and long-run objectives.

Box 9.2. Potential Targets and timescales for different COVID-19 policy responses

- Full replacement of the business stock within 12-24 months.
- Full replacement of the business stock but with different businesses within 12-24 months.
- Replacement of the business stock, with more productive businesses, within 5 years.

In the short-run – say 12 months – only Objective 1 from Box 9.2 could realistically be achieved, albeit at considerable cost, using public funds to support the continued survival of all businesses.

If policy has a longer timescale, then it may be possible to replace much of the business stock within two years. However, this risks public funds being used to support both the start-up of new businesses likely to have only a very short life-span as well as the provision of funding to the "living dead" – i.e. businesses that survive only by being in receipt of public funds.

This might be addressed if policy were to have a longer time horizon. This would enable policymakers to be more selective about those start-ups and existing enterprises that policy supports. However, the policy would continue to encounter the problems of selection noted earlier.

The final, five-year, timescale could overcome many of the above problems, but is not likely to be favoured by politicians faced by an electoral cycle of less than five years.

It is important to clarify which Objectives take precedence and which Targets and timeframes are being aimed at.

So, what is policy success? Box 9.3 sets out some criteria that might be used by evaluators to reach a judgement on whether or not COVID-19 policy has "worked", and which can be used by governments in choosing the policy mix which they see as likely to achieve these success metrics.

Box 9.3. Potential alternative measures of COVID-19 SME and entrepreneurship policy success

- Unemployment rates never exceed the peak of the Global Financial Crisis of 2008-2009, and the number and output of SMEs is not lower.
- By 2025 the productivity of SMEs has returned to, or exceeds, pre-COVID-19 levels.

In summary, unquestionably, the core lesson from evaluation studies is that policy requires, as a minimum, for its Objectives and Targets to be clearly specified.

Lesson 2: Expenditure on COVID-19 SME and entrepreneurship policy responses is frequently difficult to identify

Information on COVID-19 policy response expenditures, both in aggregate and for certain specific programmes, can be difficult to obtain, but this is clearly a pre-requisite for assessing the success of the policy.

Table 9.2 gives an indication of the intensity of policy measures used by different countries in responding to COVID-19. It distinguishes between immediate fiscal measures, which include for instance grants and subsidies to SMEs (but also additional health expenditure), deferral of tax, social security and debt payments (for businesses and consumers) and other liquidity and guarantee instruments.

Table 9.2. Selected discretionary fiscal measures adopted in countries in response to COVID-19 by 24 November 2020, % of 2019 GDP

	Immediate fiscal impulse	Deferral	Other liquidity/guarantee	Last update
Belgium	1.4%	4.8%	21.9%	22/10/2020
Denmark	5.5%	7.2%	4.1%	01/07/2020
France	5.1%	8.7%	14.2%	05/11/2020
Germany	8.3%	7.3%	24.3%	04/08/2020
Greece	3.1%	1.2%	2.1%	05/06/2020
Hungary	0.4%	8.3%	0.0%	25/03/2020
Italy	3.4%	13.2%	32.1%	22/06/2020
Netherlands	3.7%	7.9%	3.4%	27/05/2020
Portugal	2.5%	11.1%	5.5%	04/05/2020
Spain	4.3%	0.4%	12.2%	18/11/2020
United Kingdom	8.3%	2.0%	15.4%	18/11/2020
United States	9.1%	2.6%	2.6%	27/04/2020

Source: (Bruegel, 2020[12])[2]

Currently this aggregate information is available only for a small number of countries. This may be because the data are available, but not in the public domain, or because they are not collected in a consistent format.

One of the key messages of this Framework is that no adequate assessment of policy impact is possible without the costs of that policy being documented. Given our focus on SMEs and entrepreneurship, it is important to know what proportion of the total COVID-19 response budget is spent on SME and entrepreneurship-targeted measures. This would be the first step in assessing whether, for example, public crisis-response funding is more cost-effective by supporting this group, rather than large enterprises.

Lesson 3: International evaluation evidence is important

The impact of government response measures to the COVID-19 pandemic, if only because the sums of money are so substantial, merits detailed investigation. Given the variety of policy packages and measures that were implemented across different countries, there is much to be gained from international comparative information on their impacts. This section provides the framework for such an investigation. To implement it requires the commitment of public policymakers and a range of challenges to be addressed by those undertaking the work.

First, individual programme evaluations need to be undertaken in each country using the rigorous evaluation techniques discussed in Parts I and II of this Framework document. The evidence from these evaluations should be drawn together across different countries and different types of interventions to provide comparative information on impacts and successes and failures, for example in a single data source or through a single meta-evaluation report. This will help policymakers derive lessons for responses to any future major shocks to SMEs and entrepreneurship.

Second, a broader evaluation exercise needs to relate the scale and nature of the COVID-19 SME and entrepreneurship policy response to the impacts achieved, recognising different contexts and objectives. Such a broad evaluation exercise would be expected to address the following key question:

- Is there evidence that some types of SME and entrepreneurship policies were more effective than others in restoring economies to post-COVID-19 health?
- For example, did the countries which provided loan guarantees – to existing SMEs – emerge more quickly/slowly than those using funding for the creation of new firms?

The challenges facing the analysts are to assess the impact of different COVID-19 policy measures for SMEs and entrepreneurship as operated in different countries, disentangling from differences across countries in the scale of the COVID-19 crisis, in other dimensions of government policy, and in the nature of the SME economy (by sector, company size, age, pre-existing financial health etc.). This would draw upon the techniques and approaches discussed in Parts I and II of this document.

Cross-section and time-series data – collected at country and ideally regional level – is required. This would document the policies and expenditures on SMEs and entrepreneurship and then link them to the economic outcomes on SMEs and entrepreneurship, accounting for the influence of the size of the COVID-19 shock. A final challenge is to specify – where this is not explicitly documented – the metrics for judging policy success.

An important role could be played by the OECD Committee on SMEs and Entrepreneurship in undertaking an international review of the medium and long-term impacts of COVID-19 SME and entrepreneurship policy responses. This could involve assembling and interpreting information from individual evaluations of COVID-19 SME and entrepreneurship policy responses and a broader international analysis of the impact of different types of COVID-19 policy interventions on different SME and entrepreneurship performance metrics.

Recommendation: Internationally co-ordinated policy evaluation should be undertaken on the impact of COVID-19 SME and entrepreneurship policy responses.

References

Bruegel (2020), *The fiscal response to the economic fallout from the coronavirus*, https://www.bruegel.org/dataset/fiscal-response-economic-fallout-coronavirus. [12]

Lundmark, E. et al. (2020), "The Liability of Volatility and How it Changes Over Time Among New Ventures", *Entrepreneurship: Theory and Practice*, Vol. 44/5, https://doi.org/10.1177/1042258719867564. [2]

OECD (2022), *Financing SMEs and Entrepreneurs 2022: An OECD Scoreboard*. [8]

OECD (2022), *Financing SMEs and Entrepreneurs: An OECD Scoreboard*. [9]

OECD (2021), *Business dynamism during the COVID-19pandemic: Which policies for an inclusive recovery?*. [5]

OECD (2021), *OECD SME and Entrepreneurship Outlook 2021*, OECD Publishing, Paris, https://doi.org/10.1787/97a5bbfe-en. [1]

OECD (2021), *One year of SME and entrepreneurship policy responses to COVID-19: Lessons learned to "build back better"*. [7]

OECD (2020), *Coronavirus (Covid-19): SME Policy Responses*. [13]

OECD (2020), *E-commerce in the times of COVID-19*, https://www.oecd.org/coronavirus/policy-responses/e-commerce-in-the-time-of-covid-19-3a2b78e8/#boxsection-d1e27. [14]

OECD (2020), *Policy responses towards SMEs in the context of the COVID-19 virus outbreak*. [6]

OECD (2023, forthcoming), *OECD SME and Entrepreneurship Outlook 2023*. [11]

OECD/European Commission (2021), *The Missing Entrepreneurs 2021: Policies for Inclusive Entrepreneurship and Self-Employment*, OECD Publishing, Paris, https://doi.org/10.1787/71b7a9bb-en. [10]

Parker, S. (2018), *The Economics of Entrepreneurship*, Cambridge University Press. [4]

Sedláček, P. and V. Sterk (2017), "The growth potential of startups over the business cycle", *American Economic Review*, Vol. 107/10, https://doi.org/10.1257/aer.20141280. [3]

Notes

[1] For example, it is currently unclear the extent to which the increase in on-line purchases that occurred during the COVID-19 restrictions will decline, increase, or increase substantially in the longer term. The outcome has implications for retailing outlets, large and small, for hospitality and for transport.

[2] See for the methodology: https://www.bruegel.org/publications/datasets/covid-national-dataset/

10 Re-stating the key policy and evaluation messages

This chapter concludes Part III of the report by pulling together the key recommendations made in earlier chapters. These recommendations provide guidance on undertaking reliable evaluations of SME and entrepreneurship policy measures and using the evaluation evidence to improve the design and delivery of SME and entrepreneurship policies. A brief explanation and rationale is provided for each recommendation. The interested reader can return to earlier chapters for further details.

10.1. Preparatory measures for effective evaluation

Recommendation 1. Governments should specify in advance the Objectives and Targets for each policy measure introduced.

A pre-condition for effective evaluation is to be able to assess impact against the intended Objectives and Targets of the policy. Governments should specify Objectives and Targets in terms of the nature and scale of impacts they seek to achieve. This should include identification of the specific groups of entrepreneurs or SMEs to be affected and a clear justification of the policy in terms of how it is expected to lead to the changes anticipated, or the problem it is expected to address. Both are important, since differences in policy effectiveness may be expected according to whether or not a policy targets important market failures and whether or not it targets potentially impactful entrepreneurship.

Recommendation 2. Three core metrics – Sales, Employment and Survival – should be specified and assessed in all evaluations. These can be complemented with additional measures for other Objectives, where targeted, such as environmental and social benefits.

It is necessary to have some common indicators in order to compare evaluation results across different types of policy interventions and policy designs. This type of evidence is needed to adjust the policy mix towards the most effective interventions for given Objectives. Growth in Sales and Employment are key Objectives of most SME and entrepreneurship programmes and information tends to be relatively well available. In addition, the Survival metric is very important in judging policy effectiveness because of the high exit rates for new and small firms. Clearly, the desired results of many SME and entrepreneurship policies interventions expand beyond these three metrics. Additional metrics should be included where other Objectives are important, for example social impacts or environmental impacts.

Recommendation 3. Expenditure data should be made available to evaluators for each policy measure to facilitate cost-effectiveness assessments.

Programme expenditure data need to be readily available to permit assessment of the cost-effectiveness of policy. This information is critical for making valid comparisons of success across different policies and programmes. The implicit threshold for success in cost-effectiveness terms could nonetheless vary according to the target populations and contexts of an initiative. For example, the acceptable cost of achieving business start-ups or additional employment through SMEs and entrepreneurship could be higher in regions that lag in economic development terms or in populations that are disadvantaged in the labour market. These are political decisions, but evaluation evidence is required to help politicians judge whether the cost-benefit ratios are acceptable.

Recommendation 4. Governments should establish a central monitoring and evaluation unit and a co-ordination process for the monitoring and evaluation of SME and entrepreneurship policy across government ministries and bodies.

A single organisation needs to be established within government to monitor and evaluate policy across all relevant government ministries and bodies against national policy Objectives, Targets and key performance indicators. It could be placed, for example, in the ministry with lead responsibility for developing the SME and entrepreneurship strategy and for co-ordinating SME and entrepreneurship policy. It should include staff in a central monitoring and evaluation unit, who reach out to focal points in different ministries and bodies to ensure the flow of monitoring and evaluation information.

10.2. Evaluation effort and regularity

Recommendation 5. Every three years, all major SME and entrepreneurship programmes should be the subject of a reliable evaluation, defined as a minimum of Step V, only the very "short-lifers" being excluded.

This Framework shows that, for most countries and for most policy areas, there are no longer either technical- or data-based reasons for not conducting evaluations or for conducting sub-optimal evaluations. We therefore recommend that, at minimum, all large-scale programmes with a duration of at least two years should be evaluated at Step V level, as presented in Part I of this Framework. Evaluation effort should take account of proportionality considerations. A share of 1% of the programme budget should be devoted to evaluation.

10.3. Considerations for the policy mix

Recommendation 6. Governments should look carefully, using at least Step V methods, at the impact of their existing, and any new proposed, "Soft" programmes.

Although there are examples of reliable evaluations pointing to "Soft" support – advisory or training programmes – being cost-effective, these are rare. The relative effectiveness of "Hard" and "Soft" policies needs to be better understood, as well as the potential interactions between the two. More high-quality evaluation evidence is required on Soft policies and the conditions where they are effective or not effective.

Recommendation 7. Governments should review the role played by "Macro" policies.

Many SME and entrepreneurship programmes are "Micro" policy interventions, aimed at increasing capabilities and resources in specific SMEs and entrepreneurs targeted by policy. However, macro conditions may have equal or even greater impacts on SME and entrepreneurship performance, including long-established cultural traditions, legal frameworks, finance markets, knowledge generation factors etc. Macro policies aimed at these areas, but not specifically targeted on SME and entrepreneurship development, can have therefore important impacts on SMEs and entrepreneurship, including policies for infrastructure development, education, taxation, police and security etc. Indeed, the objectives that governments have for SMEs and entrepreneurship may be more easily attained through Macro actions than through dedicated Micro policies. It is important to increase understanding of the impact and cost-effectiveness of Macro policies on achieving SME and entrepreneurship objectives, and to benchmark dedicated SME and entrepreneurship policies against them.

Recommendation 8. Evaluations should provide the evidence for making decisions on the scale and nature of selective support.

Within most countries an important role is played by selective support – aimed at certain categories of SMEs or entrepreneurship, such as high-growth SMEs, gazelles, or start-ups with good survival prospects. Ideally, public support would be focused on those new and small firms most able to contribute to the economic and social welfare of the country. In practice, however, selecting for support those new and small firms most likely to survive and grow rapidly is currently problematic. This may become more reliable as data and analyses improve. A strong role needs to be played by evaluation for supporting selection approaches.

10.4. Technical considerations for evaluation

Recommendation 9. Evaluations should identify exceptional performers and the role such firms have in reaching a judgment on the overall effectiveness of a programme.

More information is needed on the extent to which different programmes succeed in generating exceptional performers, how their design enables this, and the extent to which it is the result of random, non-controllable factors. This information would help inform more selective and effective policies in the future.

Recommendation 10. Evaluations should systematically include the performance of non-surviving SMEs and start-ups in their assessments of treatment and control group performance.

Because new and small firms have high exit rates, and exit rates may be affected by policy measures, the evaluation of policy impact must take into account the impact of non-survival on estimated impacts, such as employment and sales. This requires tracking all firms and entrepreneurs in the treatment and control groups at least from the beginning of the policy intervention.

Recommendation 11. Governments should investigate the use of the data they collect for tax and other purposes with a view to making it more widely available to those conducting policy evaluations.

Data collected "automatically" by government has wide coverage and relatively high reliability. This makes it ideal for most policy evaluations. Its collection imposes no extra charges or burdens on the business and, for these reasons, it is now used in several countries. Crucially, appropriate standards of confidentiality have to be in place.

10.5. Utilisation of evaluation findings

Recommendation 12. Lessons from reliable evaluations should be shared between countries, with the OECD CSMEE being an ideal vehicle for facilitating this exchange.

There are valuable lessons to be gained from reviewing the impacts of SME and entrepreneurship policy interventions across countries. This Framework has reviewed 50 evaluations from OECD countries and sought to draw lessons. However, a much larger body of reliable evaluation evidence would help to throw light on some of the outstanding questions highlighted in this review and support international learning from evaluation practice. This will require co-ordination that the OECD Committee on SMEs and Entrepreneurship (CSMEE) is in a unique position to provide.

Recommendation 13. Internationally-co-ordinated policy evaluation should be undertaken on the impact of COVID-19 SME and entrepreneurship policy responses.

Governments need to ensure that individual COVID-19 SME and entrepreneurship policy measures are reliably evaluated and share the evaluation results to support policy learning for future shocks. In addition, a broader international analysis of the impact of the COVID-19 response on subsequent SME and entrepreneurship performance should be undertaken. The OECD CSMEE is well placed to undertake this work.

Annex A. Explanation of the template for the 50 evaluation profiles

This Annex sets out the rationale underpinning the selection of factors considered to be important in reaching a balanced conclusion on the effectiveness of an SME and entrepreneurship policy or programme. These are captured in the rows of each of the 50 evaluations in Annex B and described below. Where the factor uses a "scoring system", this is also set out. Finally, where the information used was not available in the published documents and had to be derived from those conducting the evaluation this is also noted.

- **DATES:** This specifies the years in which the programme operated. Some programmes operate for many years, whereas others have only a short life. It might be expected that the longer-life programmes will be both more likely to be evaluated and to be found to be successful[1], but this has yet to be clearly demonstrated.

  The specific years in which a programme operated may also influence outcomes. For example, new firms started in a recession show poorer performance than those beginning in prosperous times, with this persistence continuing for up to a decade[2]. Public programmes to promote start-ups might therefore be expected to have different impacts under different macro-economic conditions.

- **OBJECTIVES**: The specification of objectives prior to the start of the programme is a key recommendation from Part I. It emphasised that Objectives and Targets should be specified in a format that enables them to be evaluated. Only then can a reliable judgement be reached on whether the policy was successful. These Objectives should be specified when the policy is formally announced.

  When ranking objective-setting, we used a scale from 1 to 3. We ranked 1 when the programme had only general objectives, 2 when the programme had selected indicators close to its objectives and 3 when the programme also had specific milestones and target values. Since this information was infrequently documented in the published review, it had to be obtained from those that had conducted the evaluation.

- **TOPIC**: A key choice facing policy-makers is between different forms of intervention. They have to decide the policy funding priorities and the appropriate policies to deliver such priorities. In theory, if SME and entrepreneurship policy was delivered efficiently, the marginal impact – say in terms of cost per job created – of each policy instrument would be identical. So, for example, loan guarantee programmes and business advice programmes would be equally effective per unit of expenditure.

  Eight SME and entrepreneurship policy groupings are used within this Framework. A key role for evaluation is to offer insights into the relative cost-effectiveness of both the policy groupings and the individual policies within the groupings. Where this impact varies widely there is a case for transferring funding from the high to the low cost-effectiveness policies.

- **TARGET GROUPS**: Most policies focus upon either specific groups of individuals – such as the unemployed or the disadvantaged – or on specific types of firms such as new enterprises or those

seeking to export. It is therefore important to determine the relative effectiveness of people-based, compared with firm-based, programmes, as well as policies selecting certain types of enterprises such as new start-ups, innovative SMEs or scale-up firms. For this reason, where target groups are specified this is noted.

- **SOURCE OF EVIDENCE:** This shows the sourced document from which information on each of the 50 evaluations was derived. These are primarily government reports or articles in academic journals.

- **REGIONAL/LOCAL FOCUS:** Access to programmes frequently varies by location. While some programmes are delivered nationally, others have a restricted regional, or even, local focus. This distinction, as shown in Part I, is important since the comparative effectiveness of national/regional/local delivery mechanisms can vary. Evaluation can thus provide insights that could help policymakers to choose how best to deliver policy, depending on the focus of the programme.

- **IMPACT VARIABLES:** This specifies the business performance variables that the programme is expected to enhance. Most frequently, these include sales and employment but they frequently differ depending on the focus of the programme. As emphasised in Part I, these impact variables should be specified in advance of the operation of the programme.

- **SURVIVAL:** The high rate of closure of new firms in particular[3], but also of smaller SMEs, means that a failure to take full account of firm exits biases evaluation findings in favour of survivors which, by definition, are more successful than those that have exited. This emphasises the importance of tracking panels of both recipients and "controls" over time, so as to identify the survivors and non-survivors in both groups. This is a vitally important element of a successful evaluation and it is a key element of our overall summary Evaluation Quality Score (EQS), which we discuss below.

- **DATA SOURCES:** This sets out the original sources of data used to conduct the evaluation. As emphasised in Part I, the data should be representative of participants and of a control group of otherwise similar non-participants.

- **STEP LEVEL AND EVALUATION QUALITY SCORE (EQS):** The current review selects only those evaluations using advanced analytical methods. For each it provides a Six Steps classification, as described in Part I. Almost 90% of included evaluations scored the highest possible score of VI. In contrast, only 6 of the 41 evaluations reported in OECD 2008 reached Step VI.

  To reflect this improvement in evaluation reliability since 2008 a new, and considerably more challenging, measure has been developed: Evaluation Quality Score (EQS). This is our own 1-5 classification where the lowest score is 1 and the best score is 5.

  Rank 1 is when the evaluation was based only on a limited sample, where evaluation methods were very basic and/or not implemented properly, where impact variables did not match programme objectives and where survival analysis was missing.

  Rank 2 is when the evaluation was based only on a limited sample, where evaluation methods, although basic, were appropriately implemented but where impact variables did not match programme objectives, and where survival analysis was missing.

  Rank 3 is when the evaluation was based on an adequate and representative sample, evaluation methods were appropriately implemented, but impact variables did not match programme objectives and survival analysis was missing.

Rank 4 is when the evaluation was based on an adequate and representative sample, evaluation methods were appropriately implemented, impact variables matched programme objectives, but survival analysis was missing.

Rank 5 is when the evaluation was based on an adequate and representative sample, evaluation methods were appropriately implemented, impact variables matched programme objectives, and survival analysis was included. A glossary of evaluation methods is provided as Annex D.

- **RELIABILITY COMMENTS:** In some cases, we have reservations over specific aspects of the evaluations, for example in cases where control groups are used but these groups may not have been ideally selected – the control is those that have not received the public support (Khandker, Koolwal and Samad, 2010[1]). A valid control group should consist of a comparable group of firms/individuals with "otherwise similar" characteristics and status to the treated group. Some studies use rejected applicants for a programme as the control but, if those making the accept/reject decision are able to forecast success, then the rejected group cannot be considered to be "otherwise similar" to those accepted.

- **KEY FINDINGS:** This provides a brief synthesis of the findings of the evaluation. It distinguishes between those evaluations pointing to a (statistically significant) positive effect on a specified metric, one where there is no (statistically significant) effect and one where the effect on the metric is (statistically significantly) negative – the reverse of what was intended. In many cases there are several metrics on which programmes are evaluated and so it is important to distinguish the metrics where the findings are positive from those where impact is either zero or negative.

- **PROGRAMME EXPENDITURE**: The inclusion of expenditure potentially enables a comparison to be made between the impact of large and small programmes. Reflecting our above discussion on the different topics of evaluations, this would ideally lead to being able to compare, across programmes, cost per job created, facilitating a policy discussion on priorities.

- **MACRO IMPACT**: In addition to those benefitting directly from a programme, there are frequently other groups who either benefit or lose out[4]. Some recognition of the external effects of a policy is desirable, but these groups can be difficult to identify. We therefore limit our analysis in this area to making reference to any evidence of external impact – either positive or negative.

- **POLICY IMPACT OF THE EVALUATION:** Most importantly, the final column of the evaluation profiles in Annex B reports the extent to which the authors of the evaluation reported that policymakers, as a minimum, were aware of the results of the evaluation or, ideally, had taken it into account in policy decisions. This information was not provided in any of the published sources. For this reason, all evaluation authors were contacted and asked about the policy impact of their evaluation. 40 replied to this request[5]. It should be recognised that this is self-reported data, with its well-recognised limitations, but the importance of the issue justifies the approach.

Annex B. Methods and findings of the 50 individual evaluations

This Annex documents the evaluation studies included in the report. They are listed by the dominant policy focus of the programme evaluated, as per our 8 policy themes. The evaluations fall under the areas of Finance; Business Advice, Coaching, Mentoring and Counselling; Internationalisation; Innovation; Enterprise Skills and Culture; Inclusive Entrepreneurship; Regional and Local Focus; and Support in Areas of Disadvantage. There are no examples of Cluster evaluations.

Finance

Table B.1. The impact of government financial assistance on the performance and financing of Australian SMEs

TABLE REFERENCE	B1	
PROGRAMME NAME	Direct financial assistance from the Australian government, including grants, subsidies and rebates.	
DATES	Years when the programme was operating: 2005-2010 Evaluation period: 2005-2010 Year of the report: 2017 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 1 The programmes of direct financial assistance (subsidies, grants and rebates) aimed to improve access to finance for SMEs, to mitigate the effects of the financial crisis and to enhance the competitiveness of the supported firms.
	No	Improved access to finance, increased competitiveness
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in Australia	
SOURCE OF EVIDENCE	Academic article: (Xiang and Worthington, 2017[2]). The impact of government financial assistance on the performance and financing of Australian SMEs. *Accounting Research Journal*, *30*(4), 447-464. Available at:https://doi.org/10.1108/ARJ-04-2014-0034	
COUNTRY	Australia	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Sales, profit, probability of obtaining other funding	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Survey data and accounting data: Data from the Business Longitudinal Database compiled by the Australian Bureau of Statistics combined with official accounting data. 508 supported firms (18.6% of surveyed firms) and non-supported firms from the survey.	
STEP LEVEL	5	
METHODS	Panel data approach Random effects regressions The authors estimate firm-level effects in t+1	
EVALUATION QUALITY SCORE	2	

RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias only partially. Although the authors use pre-intervention financial data and firm-level characteristics, the two-step estimation is not used as a methodological approach. Moreover, different kinds of interventions are combined in pooled results and we do not know any details about the outcomes of the individual programmes.
KEY FINDINGS	The authors find positive effects of the governmental support on sales, profit and on obtaining other funding.
PROGRAMME EXPENDITURE	N/A
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	N/A

Table B.2. The effectiveness of investment subsidies: evidence from a regression discontinuity design

TABLE REFERENCE	B2	
PROGRAMME NAME	Flemish government Entrepreneurship Agency programme	
DATES	Years when the programme was operating: 2004-2009 Evaluation period: 2001-2012 Year of the report: 2016 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 1 The programme aimed to stimulate economic growth through investment subsidies allocated to firms.
Final objectives available	Yes	Increased investments, increased competitiveness
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in Flanders region	
SOURCE OF EVIDENCE	Academic article: (Decramer and Vanormelingen, 2016[3]). The effectiveness of investment subsidies: evidence from a regression discontinuity design. Small Business Economics, 47(4), 1007-1032. Available at: https://doi.org/10.1007/s11187-016-9749-2	
COUNTRY	Belgium	
REGIONAL/LOCAL	One region study	
PERFORMANCE METRICS	Employment, fixed assets, sales, value-added, labour productivity and total factor productivity (TFP)	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Commercial data and administrative data: Firm-level data from Bel-First database (Bel-First) in combination with data from Flemish government´s Entrepreneurship Agency 932 firms supported during 2004-2009 in Flanders region (2,966 supported in total), 4,463 non-supported firms from Flanders region (rejected applicants)	
STEP LEVEL	6	
METHODS	Panel data approach Regression discontinuity design The authors estimate firm-level effects from t+1 to t+3	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. However, the number of SMEs included in the analysis is much lower compared to the population of supported enterprises.	
KEY FINDINGS	The authors find positive effects of subsidies on fixed assets, employment, sales, value-added, labour productivity and TFP growth for very small firms, and they do not find any effects for larger firms.	
PROGRAMME EXPENDITURE	250 million Euro allocated through the Entrepreneurship Agency (Agentschap Ondernemen) programme during 2004-2008 in Flanders region, Belgium. The authors estimate that the cost of one job created through subsidy was high (500 ths. EUR).	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors summarised the results in a policy paper published on the website of their research unit and disseminated them in some of the national newspapers. However, they have not presented the results to policymakers.	

Table B.3. The economic impact of the Canada Small Business Financing Program

TABLE REFERENCE	B3	
PROGRAMME NAME	Canada Small Business Financing Program (CSBFP)	
DATES	Years when the programme was operating: 2004 Evaluation period: 2002-2006 Year of the report: 2012 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to facilitate access to finance for SMEs through the allocation of credit guarantees in cooperation with commercial banks in response to distortions on the financial markets.
	Yes	Improved access to finance, increased competitiveness
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	New and established SMEs in Canada	
SOURCE OF EVIDENCE	Academic article: (Chandler, 2012[4]). The economic impact of the Canada small business financing program. *Small Business Economics*, *39*(1), 253-264. Available at: https://doi.org/10.1007/s11187-010-9302-7	
COUNTRY	Canada	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment, revenues, profit and wages	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Survey data and administrative data: Data from the Survey on Financing of Small and Medium Entreprises (SFSME) combined with the official accounting data. Four groups of firms: 199 firms supported by credit guarantees in 2004 (11 000 loans guaranteed in 2004 in total), 121 rejected applicants, 621 approved applicants but non-supported firms, and 2 105 non-supported firms (randomly selected SMEs from SFSME).	
STEP LEVEL	5	
METHODS	Panel data approach OLS regressions in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects in t+2	
EVALUATION QUALITY SCORE	3	
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias only partially. Although the authors use pre-intervention financial data and firm-level characteristics, the two-step estimation is not used as a methodological approach. Nevertheless, an asset of the study is combination of different kinds of control groups.	
KEY FINDINGS	The authors find positive effects of the programme on salary, employment and revenues, but no significant effects on profit.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through both programmes was approximately 30 mil. USD. in 2004.	
MACRO IMPACT	The authors estimate that the approximately 11 000 loans guaranteed in 2004 have created 0.63 jobs each, meaning that the CSBFP created approximately 5 000 jobs. The authors calculate that each job created costs of about 6 000 USD.	
POLICY IMPACT OF THE EVALUATION	The author did not present results to the policymakers.	

Table B.4. Assessing the microeconomic effects of public subsidies on the performance of firms in the Czech food processing industry: A counterfactual impact evaluation

TABLE REFERENCE	B4	
PROGRAMME NAME	Subsidies allocated within the Czech Operational Programme for Enterprises and Innovation (OPEI)	
DATES	Years when the programme was operating: 2007-2013 Evaluation period: 2005-2015 Year of the report: 2019 (Published)	
STATED OBJECTIVES	Yes	Objective specification score: 1 The programme aimed to improve the competitiveness of the Czech firms through the allocation of

Programme goal stated		investment subsidies.
Final objectives available	Yes	Increased competitiveness, increased investments
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in the Czech Republic, the evaluation focused on firms in the Food industry	
SOURCE OF EVIDENCE	Academic article: (Dvouletý and Blažková, 2019[5]). Assessing the microeconomic effects of public subsidies on the performance of firms in the Czech food processing industry: A counterfactual impact evaluation. *Agribusiness*, *35*(3), 394-422. Available at: https://doi.org/10.1002/agr.21582	
COUNTRY	Czech Republic	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Price-cost margin, return on assets (ROA), assets turnover, value-added per labour costs, long-run risk, tangible fixed assets, labour costs, sales	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Administrative and commercial data: Firm-level data from databases Magnus Web and SSV, in combination with data from the Czech Ministry of Industry and Trade. 143 firms supported by subsidies (203 firms were supported in the Food industry in total) and 604 non-supported firms from the Czech Food industry (non-applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects in t+2	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and industry bias.	
KEY FINDINGS	The authors find positive effects on price-cost margin, value-added per labour cost, growth of sales and growth of tangible assets.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through subsidies to the firms in the Czech food industry was 86.4 mil. EUR.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The results were presented at the Czech Ministry of Industry and Trade for the relevant stakeholders and they promised to consider and incorporate recommendations on better data collection and better organisation of the programme, stressing the growth potential in the evaluation of project proposals.	

Table B.5. Do firms supported by credit guarantee schemes report better financial results 2 years after the end of intervention?

TABLE REFERENCE	B5	
PROGRAMME NAME	START and ZÁRUKA programmes	
DATES	Years when the programme was operating: 2017-2013 Evaluation period: 2005-2015 Year of the report: 2019 (Published)	
STATED OBJECTIVES		Objective specification score: 2
Programme goal stated	Yes	Programme aimed to allocate financial capital to new and established SMEs in the Czech Republic.
Final objectives available	Yes	Increase in employment, higher competitiveness
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in the Czech Republic	
SOURCE OF EVIDENCE	Academic article: (Dvouletý, Čadil and Mirošník, 2019[6]). Do Firms Supported by Credit Guarantee Schemes Report Better Financial Results 2 Years After the End of Intervention?. *The BE Journal of Economic Analysis & Policy*, 19(1), 2018005. Available at: https://doi.org/10.1515/bejeap-2018-0057	
COUNTRY	Czech Republic	
REGIONAL/LOCAL	One country study, focus on new and established SMEs	

PERFORMANCE METRICS	Total assets, tangible fixed assets, personnel costs, sales, price-cost-margin (PCM), return on assets (ROA)
NON-SURVIVORS INCLUDED?	Yes, 17% of supported firms went out of business.
DATA SOURCES	Administrative and commercial data: Firm-level data from databases Magnus Web and SSV, in combination with data from the Czech Ministry of Industry and Trade. 530 firms supported by credit guarantees (85 firms were supported within Start and 2,011 firms within Záruka scheme in total) and 4,945 non-supported firms (selected randomly from business register)
STEP LEVEL	6
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects in t+2
EVALUATION QUALITY SCORE	5
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. The authors analyse altogether schemes Start and Záruka. Separate results across schemes are not reported.
KEY FINDINGS	The authors find only a positive change in tangible fixed assets for the programme participants and the effects for the remaining variables were not found to be statistically significant.
PROGRAMME EXPENDITURE	The total amount of public resources allocated through both programmes was 164 mil. EUR.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The results were presented at the Czech Ministry of Industry and Trade for the relevant stakeholders and they promised to consider and incorporate recommendations on better data collection and better organisation of the programme, stressing the growth potential in the evaluation of project proposals.

Table B.6. The role of financial support in SME and economic development in Estonia

TABLE REFERENCE	B6	
PROGRAMME NAME	Various grants managed by the Enterprise Estonia (EAS) government agency, i.e. start-up and development grants, research and development (R&D) grant, development of knowledge and skills grants, technology investment grants, export grants	
DATES	Years when the programme was operating: 2004-2009 Evaluation period: 2004-2010 Year of the report: 2013 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 1 The programme aimed to promote regional economic development in Estonia through the allocation of public subsidies to firms.
	Yes	Increase in number of start-ups, increase in innovation activities, increase in competitiveness, higher export, higher competitiveness
EVALUATION THEME	Finance; Innovation; Internationalisation	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in Estonia	
SOURCE OF EVIDENCE	Academic article: (Hartšenko and Sauga, 2013[71]). The role of financial support in SME and economic development in Estonia. *Business & Economic Horizons*, 9(2), 10-22. Available at: http://dx.doi.org/10.15208/beh.2013.6	
COUNTRY	Estonia	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Sales, labour productivity	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Administrative data: Data provided by Enterprise Estonia and Estonian Commercial Register. 508 firms supported during 2004-2009 by various grants (100% of population), 3,921 non-supported Estonian firms (non-applicants, 10% of all firms within sectors randomly selected)	
STEP LEVEL	5	

METHODS	Panel data approach Fixed and random effects regressions in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects from t+1
EVALUATION QUALITY SCORE	3
RELIABILITY COMMENTS	The analysis does not tackle the issue of area and industry bias. Control variables for firm-level observable characteristics are missing. The authors analyse altogether different kinds of grant schemes and programmes. Separate results across programmes are not reported.
KEY FINDINGS	The authors find positive effects on sales and labour productivity.
PROGRAMME EXPENDITURE	13.87 mil. Euro allocated through Enterprise Estonia (EAS) government Agency during 2004-2009 in Estonia.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	N/A

Table B.7. Impact evaluation of EU subsidies for economic development on the Hungarian SME sector

TABLE REFERENCE	B7	
PROGRAMME NAME	Economic Development Operational Programme and Regional Development Operational Programmes from the EU Structural Funds and the Cohesion Fund	
DATES	Years when the programme was operating: 2007-2013 Evaluation period: 2003-2015 Year of the report: 2017 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programmes aimed to mitigate regional disparities through investment subsidies allocated to firms. Eligible activities included employment enhancement; support of research, development and innovation; environmental investments; development of production plants, technology and capacity; development of tourism; development of corporate information and communication technology; corporate consultancy; and they were supported through the direct subsidies and financial instruments.
	Yes	Increase in employment, higher competitiveness, higher innovation activity
EVALUATION THEME	Finance; Innovation	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in Hungary	
SOURCE OF EVIDENCE	Working paper: (Banai et al., 2017[8]). Impact evaluation of EU subsidies for economic development on the Hungarian SME sector. *MNB Working Papers 8* (No. 2017/8). Available at: https://www.econstor.eu/bitstream/10419/189891/1/mnb-wp-2017-8.pdf.	
COUNTRY	Hungary	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment, value-added, sales, profit, tangible assets, labour productivity	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Administrative data: Firm-level data were obtained from the National Tax, and Customs Administration (NTCA) and programme data come from the Unified Monitoring Information System (EMIR). Additional firm-level data were obtained from the Hungarian Central Statistical Office´s Business Register. 9 636 firms supported by subsidies (19 866 firms supported in total) and 2 587 firms supported by financial instruments (13 538 firms supported in total), 192 570 non-supported firms (non-applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach, fixed-effects (FE) regressions The authors estimate firm-level effects from t+1 to t+4	

EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	Analysis tackles the issue of area and industry bias. A large sample and a complex evaluation study.
KEY FINDINGS	The authors find positive effects on employment, value-added, sales, profit, tangible assets, but insignificant effects on labour productivity. The separate results across firm-size (micro, small and medium) are provided as well as results across the programmes. The authors do not find differences between the outcomes of subsidies and financial instruments.
PROGRAMME EXPENDITURE	11 067 billion Hungarian Forints (HUF) was allocated through the programmes during years 2007-2013 (1$ = 221 HUF in November 2013).
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The results were presented to the governmental agencies responsible for the allocation of EU subsidies (Prime Minister's Office and the Ministry for National Economy) in 2017, and the authors were then asked for a consultation concerning the programming period 2021-2027.

Table B.8. Public credit guarantee schemes and SMEs' profitability: Evidence from Italy

TABLE REFERENCE	B8	
PROGRAMME NAME	Credit Guarantee Scheme Fondo Centrale di Garanzia (Central Guarantee Fund)	
DATES	Years when the programme was operating: 2000- (nowadays) Evaluation period: 2005-2011 Year of the report: 2019 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to facilitate access to finance through the allocation of the credit guarantees in cooperation with commercial banks in response to distortions on the financial markets.
	Yes	Improved access to finance, increased competitiveness
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in Italy, focus on new and established SMEs	
SOURCE OF EVIDENCE	Academic article: (Caselli et al., 2019[9]). Public Credit Guarantee Schemes and SMEs' Profitability: Evidence from Italy. *Journal of Small Business Management* (forthcoming). Available at: https://doi.org/10.1111/jsbm.12509.	
COUNTRY	Italy	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Return on investment (ROI)	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Administrative and commercial data: Firm-level data from AIDA Bureau van Dijk, in combination with data from the Central Guarantee Fund. 15 562 firms supported by credit guarantees (55% of all supported firms) and 23 000 non-supported firms (collected from commercial database, i. e. non-applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects from t+1 to t+2	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. The authors provide estimates across firm size and industry.	
KEY FINDINGS	The authors find positive outcomes of the programme on ROI, however only for micro and small firms. They further report negative impact in the case of medium-sized firms.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated to the scheme was 2 bil. EUR during 2008-2012.	
MACRO IMPACT	N/A	

POLICY IMPACT OF THE EVALUATION	The authors have presented results to the representatives of the Central Guarantee Fund and the Italian national promotion bank. However, the authors are not familiar about the specific changes, based on this evaluation report.

Table B.9. Are lending relationships beneficial or harmful for public credit guarantees? Evidence from Japan's Emergency Credit Guarantee Programme

TABLE REFERENCE	B9	
PROGRAMME NAME	Japan's Emergency Credit Guarantee (ECG) Programme	
DATES	Years when the programme was operating: 2008-2011 Evaluation period: 2008-2009 Year of the report: 2013 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 The programme aimed to mitigate the negative effects of the financial crisis and to improve access to finance for SMEs.
Final objectives available	Yes	Improved access to finance, higher competitiveness, mitigation of negative effects of the financial crisis
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in Japan	
SOURCE OF EVIDENCE	Academic article: (Ono, Uesugi and Yasuda, 2013[10]). Are lending relationships beneficial or harmful for public credit guarantees? Evidence from Japan's Emergency Credit Guarantee Program. *Journal of Financial stability*, 9(2), 151-167. Available at: https://doi.org/10.1016/j.jfs.2013.01.005	
COUNTRY	Japan	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment, loans obtained from a bank, interest payments, cash ratio, credit score, tangible fixed assets, sales, return on assets (ROA)	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Administrative and survey data: Data obtained via a RIETI survey that was conducted by Research Institute of Economy, Trade and Industry, a research institution affiliated with the Ministry of Economy, Trade, commercial firm-level data from Nikkei Financial QUEST, data from Financial Services Agency, and other online sources. 365 firms supported by credit guarantees in 2008 and 2 134 non-supported firms (non-applicants, selected randomly from Tokyo Shoko Research database).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects t+1	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. The authors provide interesting insights into firm-bank relationships by incorporating many bank-related variables.	
KEY FINDINGS	The authors find that the programme significantly improved credit availability for supported firms. However, the authors could not find positive effects on profitability, investment and employment. On the contrary , they found a negative effect of the scheme on credit score of the supported firms.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through the programme was 27.1 trillion yen (approximately 300 billion U.S. dollars).	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors presented the paper to the government representatives (SME Agency of the Ministry of Economy, Trade and Industry) and the central bank (Bank of Japan) officials on several occasions. Officials at the SME Agency collected academic research results on the effectiveness of the credit guarantee scheme and used them for drafting a policy package to reform Japan's credit guarantee programme. The reform started in 2018. The paper was also presented at the International Monetary Fund (IMF).	

Table B.10. Evaluation of credit guarantee policy using propensity score matching

TABLE REFERENCE	B10	
PROGRAMME NAME	Credit Guarantee Schemes provided by Korea Credit Guarantee Fund (KCGF) and the Korea Technology Credit Guarantee Fund (KOTEC)	
DATES	Years when the programme was operating: 2001-2003 Evaluation period: 2000-2003 Year of the report: 2009 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to mitigate the negative effects of the financial crisis and to improve access to finance for SMEs.
	Yes	Improved access to finance, increased competitiveness, mitigation of negative effects of the financial crisis
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in Korea in manufacturing with at least five employees	
SOURCE OF EVIDENCE	Academic article: (Oh et al., 2009[11]). Evaluation of credit guarantee policy using propensity score matching. *Small Business Economics*, *33*(3), 335-351. Available at: https://doi.org/10.1007/s11187-008-9102-5	
COUNTRY	Korea	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Total factor productivity (TFP), employment, sales, wage level, investment intensity, change in R&D status, firm survival	
NON-SURVIVORS INCLUDED?	Yes, firm survival is an outcome variable.	
DATA SOURCES	Administrative and survey: Annual Survey on Mining and Manufacturing in Korea in combination with data from the Korea Credit Guarantee Fund (KCGF) and Korea Technology Credit Guarantee Fund (KOTEC). 8 714 firms (100% of the population) supported by credit guarantees (3 996 firms were supported within KOTEC scheme, 3 818 firms within KCGF scheme and 900 firms within both schemes) supported between 2001-2002 and 35 299 non-supported firms.	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects from t+1 to t+2	
EVALUATION QUALITY SCORE	5	
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. The authors analyse separately firms supported by KOTEC, KCGF and both schemes. The details about the control group concerning application for public support are missing.	
KEY FINDINGS	The authors find positive effects on sales, employment, wage levels and survival rates. The remaining variables differed across both schemes. Firms supported by KOTEC scheme showed positive effects on changes in R&D status, and firms supported by both schemes showed positive effects on TFP. The remaining results were not conclusive.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through both programmes in 2003 was nearly 12 trillion of Korean Won (1$ = 1037 KRW in November 2005).	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	No. The authors have not presented the results to the government.	

Table B.11. The impact of investment support on labour productivity in Lithuanian family farms: A propensity score matching approach

TABLE REFERENCE	B11
PROGRAMME NAME	Modernisation of agricultural holdings, rural development programme
DATES	Years when the programme was operating: 2007-2012 Evaluation period: 2007-2012 Year of the report: 2019 (Published)

STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 1 Rural Development programme aimed to improve regional competitiveness of farms through the allocation of investment subsidies for modernisation of agricultural holdings.
	Yes	Higher competitiveness, higher investments
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Lithuanian family farms	
SOURCE OF EVIDENCE	Academic article: (Namiotko et al., 2019[12]).The impact of Investment support on labour productivity in Lithuanian family farms: A propensity score matching approach. *Economics and Sociology*, 12(1), 342-352. Available at: https://doi.org/10.14254/2071-789X.2019/12-1/21	
COUNTRY	Lithuania	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Labour productivity	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Administrative data: The authors use Farm Accountancy Data Network (FADN) dataset obtained from Lithuanian Institute of Agrarian Economics. 284 farms were included in the empirical analysis. 62 farms were supported during 2007-2010 (5 445 farms were supported in total) and 222 non-supported (non-applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects in t+2	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis does not tackle the issue of area bias, but it does address industry bias as it is a one-industry study. Firm size is not included in matching regression. We do not know the total number of supported recepients.	
KEY FINDINGS	The authors conclude that Lithuanian farmers' participation in investments promoting policy did not result in labour productivity gains.	
PROGRAMME EXPENDITURE	Total financial allocation for the Rural Development programme was 2 524.7 mil. EUR. For the modernisation of agricultural holding was allocated 498.5 mill. EUR.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The results were not presented to the representatives of the government.	

Table B.12. Mexico: Impact evaluation of SME programmes using panel firm data

TABLE REFERENCE	B12	
PROGRAMME NAME	Entrepreneurship support programmes administered by various government agencies and ministries (Ministry of Economy, Nafinsa, Bancomext, Conacyt, Ministry of Labour). The evaluated programes include those run by: CIMO-PAC, FIDECAP, FAMPYME, Fondo PYME, COMPITE, CRECE, ROMODE, PROSEC, MEX-EX, PATCI, Crediexporta, PAT, PMT, PCI, PAIDEC, Fiscal Support and Technological Innovation	
DATES	Years when the programme was operating: 2001-2006 Evaluation period: 1994-2005 Year of the report: 2010 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 The programmes differed in their stated objectives, but they seek to promote the productivity, quality, and competitiveness of small enterprises, encourage technology upgrading, training, and conservation, and improve earnings and safe working conditions for the workforce in firms.
Final objectives available	Yes	Increased competitiveness, increased hard and soft skills, innovation boost
EVALUATION THEME	Finance; Business advice, coaching, mentoring and counselling; Innovation	
INTERVENTION TYPE	Both	

TARGET GROUPS	All kinds of firms, depending on a specific programme
SOURCE OF EVIDENCE	Policy Research Working Paper: (Lopez-Acevedo and Tinajero, 2010[13]). *Mexico: impact evaluation of SME programs using panel firm data*. The World Bank, Available at: http://documents.worldbank.org/curated/en/421151468282531628/Mexico-impact-evaluation-of-sme-programs-using-panel-firm-data
COUNTRY	Mexico
REGIONAL/LOCAL	One country study
PERFORMANCE METRICS	Employment, value added, gross production, sales, worked hours, wages, fixed assets, foreign sales, technology transfers payments, maquila services
NON-SURVIVORS INCLUDED?	No.
DATA SOURCES	Administrative and survey data: Data were obtained from surveys National Employment Salary, Training and Technology (Encuesta Nacional de Empleo, Salarios, Capacitación y Tecnología—ENESTYC) and Annual Industry Survey (Encuesta Industrial Annual—EIA) that are maintained by Mexico's National Statistics Office (Instituto Nacional de Estadística y Geografía—INEGI) and from the programme data come from Ministry of Economy and National Science and Technology Council (Consejo Nacional de Ciencia y Tecnología—CONACyT). 838 firms supported (3 664 065 firms supported during 2001-2006 in total) and 1 540 non-supported (non-applicants).
STEP LEVEL	6
METHODS	Panel data approach Propensity score matching (PSM) with a difference-in-differences (DID) approach, fixed effects regressions The authors estimate mainly firm-level effects in t+2 (DID), but they also attempt to study long-term effects from t+1 to t+9 (and longer)
EVALUATION QUALITY SCORE	3
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. Nevertheless, the data on participation were collected retrospectively in 2001 and 2005 via a survey and thus they may be unreliable. The proportion of the sample analysed in the study is very small when compared with the population of treated firms. Different types of support (trainings, grants, financial instruments, technical assistance) are all mixed together in the findings.
KEY FINDINGS	The authors find that participation in any programme had a positive effect on value added, exports, sales, employment and fixed assets. However, the outcomes differed across the programmes. Once the authors separated the results across programmes, the results become very mixed, some of the schemes reported negative and non-significant results. The results across programmes are reported in the study.
PROGRAMME EXPENDITURE	Programmes administered by Ministry of Economy: 782 mil. USD Programmes administered by Nafinsa: 43,412 mil. USD Programmes administered by Bancomext: 34,449 mil. USD Programmes administered by Conacyt: 977 mil. USD Programmes administered by Ministry of Labor: 75 mil. USD The authors provide summary tables indicated number of recepients benefited from selected programmes and the total financial allocation.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The authors published two reports based on the study and they presented them to government officials. The focus of presentations was on how to better design the forthcoming policies.

Table B.13. Impotence of crisis-motivated subsidization of firms: The case of Slovenia

TABLE REFERENCE	B13	
PROGRAMME NAME	Slovenia's anti-crisis state aid programmes	
DATES	Years when the programme was operating: 2009-2015 Evaluation period: 1998-2015 Year of the report: 2018 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programmes aimed to mitigate the negative effects of the financial crisis. SMEs received a financial subsidy for R&D activities, employment, training and rescuing and restructuring.
	Yes	Improved access to finance, mitigation of negative effects of the financial crisis, increased firm-survival
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in Slovenia	
SOURCE OF EVIDENCE	Academic article: (Burger and Rojec, 2018[14]).Impotence of crisis-motivated subsidization of firms: The case of	

	Slovenia. *Eastern European Economics*, 56(2), 122-148. Available at: https://doi.org/10.1080/00128775.2017.1416294.
COUNTRY	Slovenia
REGIONAL/LOCAL	One country study
PERFORMANCE METRICS	Employment, sales
NON-SURVIVORS INCLUDED?	No.
DATA SOURCES	Administrative data: Firm-level data obtained from the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) and from the Bank of Slovenia. Programme data were obtained from the Ministry of Finance State Aid. 24 385 firms supported by subsidies and 709 914 non-supported firms (non-applicants).
STEP LEVEL	6
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects from t+1 to t+5
EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. The analysis provides results for a long-term effects of public anti-crisis subsidies. Separate estimates across a type of subsidy are reported. Large-sample study.
KEY FINDINGS	The authors find that the programme increased employment, but it did not lead to an increase in sales.
PROGRAMME EXPENDITURE	The total amount of public resources allocated through the programmes was 688 mil. EUR.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The authors published results in a local language journal and a policy report, but the results were not presented to the government. According to authors judgement, the evaluation had no impact.

Table B.14. Loan guarantee schemes in the UK: the natural experiment of the enterprise finance guarantee and the 5 year rule

TABLE REFERENCE	B14	
PROGRAMME NAME	Enterprise Finance Guarantee Scheme (EFG)	
DATES	Years when the programme was operating: 2009-2013 (ongoing) Evaluation period: 2009-2013 Year of the report: 2018 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to facilitate access to finance through the allocation of loan guarantees in cooperation with commercial banks in response to distortions on the financial markets.
	Yes	Improved access to finance
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	SMEs in the UK	
SOURCE OF EVIDENCE	Academic article: (Cowling et al., 2018[15]). Loan guarantee schemes in the UK: the natural experiment of the enterprise finance guarantee and the 5 year rule. *Applied Economics*, 50(20), 2210-2218. Available at: https://doi.org/10.1080/00036846.2017.1392004	
COUNTRY	United Kingdom	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment, sales	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Survey data: Data provided by the UK Department for Business Innovation and Skills Enterprise Finance Guarantee (EFG).	

	500 firms supported by credit guarantees (6 504 supported in total in 2009), authors divided them into two groups: SMEs that would be supported only under Five Year Rule conditions (treated) and vs the remaining supported firms (control).
STEP LEVEL	6
METHODS	A natural experiment investigating whether a policy shift led to better economic firm-level outcomes or not Panel data approach OLS regressions The authors estimate firm-level effects from t+3
EVALUATION QUALITY SCORE	3
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias but not area bias. Only t+3 effects are calculated, and the results are based on survey data.
KEY FINDINGS	The authors find positive effects on employment but they do not find positive effects on sales. The evaluation study indicates that a shift in a policy from a 5-Year Rule towards more relaxed conditions for applicants (higher credit guarantees and less constraints in terms of sales) for credit guarantee loans is less beneficial in terms of firm-level economic effects.
PROGRAMME EXPENDITURE	The supported enterprises could obtain a maximum loan guarantee of one mill. GBP. 23 762 loans with a total value of 2 106.7 mil. GBP were guaranteed between 2009-2013.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	N/A

Table B.15. Finance and growth at the firm level: evidence from SBA loans

TABLE REFERENCE	B15	
PROGRAMME NAME	Small Business Administration (SBA) loans (lending programmes 7a and 504)	
DATES	Years when the programme was operating: 1992-2007 Evaluation period: 1987-2012 Year of the report: 2017 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 The programme aimed to increase employment through the allocation of subsidised loans.
Final objectives available	Yes	Improved access to finance, increase in employment
EVALUATION THEME	Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Firms in the United States, focus on all kinds of firms	
SOURCE OF EVIDENCE	Academic article: (Brown and Earle, 2017[16]). Finance and growth at the firm level: evidence from SBA loans. *The Journal of Finance*, *72*(3), 1039-1080. Available at: https://doi.org/10.1111/jofi.12492	
COUNTRY	United States	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Administrative data: Data for both groups were obtained from the Census Bureau. 128 900 firms were supported within scheme 7(a) and 28 600 firms were supported within the scheme 504. The control group was constructed from the population of non-recepients (500 000 firms).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach, instrumental variables (IV) approach, ordinary least squares (OLS) regressions The authors estimate firm-level effects from t+1 to t+5	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. Different kinds of methods are used in to obtain more reliable results. Large sample study.	

KEY FINDINGS	The authors find positive outcomes of the programme on employment. The authors report larger effects for younger and larger firms. The authors also report estimates on the effects across the intensity of public support.
PROGRAMME EXPENDITURE	N/A
MACRO IMPACT	The authors find positive outcomes of the programme on employment. The authors report larger effects for younger and larger firms. The authors also report estimates on the effects across the intensity of public support.
POLICY IMPACT OF THE EVALUATION	The authors have presented results to the government and discussed the evaluation in the U.S. Senate. As a result of the discussion, a Senate bill was introduced to increase loans in manufacturing.

Business Advice, Coaching, Mentoring, and Counselling

Table B.16. Publicly funded business advisory services and entrepreneurial outcomes

TABLE REFERENCE	B16	
PROGRAMME NAME	Investment Network Programme administered by the Innovation Synergy Center	
DATES	Years when the programme was operating: 2007-2009 Evaluation period: 2006-2009 Year of the report: 2012 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The main goal of the Investment Network Programme was to pursue entrepreneurial outcomes (i.e. performance and financial resources) in growth- and investment-oriented SMEs through provision of advisory services and counselling.
	Yes	Increased competitiveness, improved access to additional funding
EVALUATION THEME	Business advice, coaching, mentoring and counselling	
INTERVENTION TYPE	Soft	
TARGET GROUPS	Growth-oriented SMEs located in Ontario region	
SOURCE OF EVIDENCE	Academic article: (Cumming and Fischer, 2012[17]). Publicly funded business advisory services and entrepreneurial outcomes. *Research Policy*, *41*(2), 467-481. Available at: https://doi.org/10.1016/j.respol.2011.09.004	
COUNTRY	Canada	
REGIONAL/LOCAL	One region study, Ontario region	
PERFORMANCE METRICS	Sales, obtaining an angel equity investment, patents, formation of a strategic alliance	
NON-SURVIVORS INCLUDED?	Yes, 17 supported firms that went out of business are included in the analysis.	
DATA SOURCES	Administrative data: Data were provided by the Investment Network. 101 treated firms and 127 non-supported (firms that were in touch with the Innovation Synergy Center, but not applied for the programme).	
STEP LEVEL	6	
METHODS	Panel data approach Two-stage Heckman selection model, Tobit regressions, Instrumental variables (IV) approach The authors estimate firm-level effects in t+1	
EVALUATION QUALITY SCORE	5	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. The analysis contains a wide range of control variables, including characteristics of the top management team.	
KEY FINDINGS	The authors find a positive impact of the programme on sales, patents, obtaining an angel equity investment and on formation of a strategic alliance.	
PROGRAMME EXPENDITURE	The programme costs were totalled at 662 360 USD. The authors calculated that financing raised per dollar of cost at only 0.10 USD. Given that, the authors consider the programme to be cost-efficient.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors have presented the results to the Ontario Government and proposed several changes to the scheme, however, these changes were in the end voted out.	

Table B.17. Supplier development programmes and firm performance: Evidence from Chile

TABLE REFERENCE	B17	
PROGRAMME NAME	Chile Supplier Development Programme (Programa de Desarrollo de Proveedores - PDP) administered by the economic development agency CORFO.	
DATES	Years when the programme was operating: 1998-ongoing Evaluation period: 1998-2008 Year of the report: 2013 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to promote, improve and stabilise mutually beneficial, long-term commercial relationships between large buyer firms — potential exporters — and their SME suppliers to increase competitiveness through tax-deductible expenses from corporate income tax. Eligible projects included purchases of specialised services, management training, technical assistance, advice and technology transfer services.
	Yes	Increased competitiveness, more intense cooperation between SMEs and large companies
EVALUATION THEME	Business advice, coaching, mentoring and counselling; Enterprise skills and culture	
INTERVENTION TYPE	Soft	
TARGET GROUPS	SMEs in Chile, evaluation focused on all firms in the agribusiness sector	
SOURCE OF EVIDENCE	Academic article: (Arráiz, Henríquez and Stucchi, 2013[18]). Supplier development programs and firm performance: evidence from Chile. *Small Business Economics*, *41*(1), 277-293. Available at: https://doi.org/10.1007/s11187-012-9428-x	
COUNTRY	Chile	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Firm sustainability (positive sales), sales, export orientation (exporting), employment and wages	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Administrative data: Firm-level data from the Chilean tax administration agency (Servicios de Impuestos Internos - SII) and programme data from CORFO agency. The effects were estimated separately for sponsoring firms (large firms) and SMEs. There were 1 811 supported SMEs and 6 347 non-applicant SMEs, and 92 sponsoring firms and 9 916 non-applicant large firms.	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects from t+1 to t+3	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. It is an interesting evaluation indicating programme outcomes across two different groups of beneficiaries.	
KEY FINDINGS	The authors find that both groups of firms (SMEs and large sponsor firms) benefited from the programme´s coordination efforts. The results show that SMEs improved their sales, employment, wages and sustainability, while large firms increased their sales and export orientation.	
PROGRAMME EXPENDITURE	The programme expenditures during the years 2005-2008 were about 42.3 mil. USD.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors have presented evaluation results to the government, but they are not aware of any specific resulting policy change.	

Table B.18. Assessing the effectiveness of guided preparation for new venture creation and performance: Theory and practice

TABLE REFERENCE	B18
PROGRAMME NAME	North Jutland Entrepreneurial Network (NiN) Programme
DATES	Years when the programme was operating: 2002-2006 Evaluation period: 2002-2008 Year of the report: 2012 (Published)

STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The main goal of the NiN programme is to guide and assist individuals engaged in the creation of a new venture as their primary occupation through the allocation of soft business support such as counselling and advisory. The programme offered three levels of counselling, including counselling provided by the local business centre (I), counselling with private-sector advisors (II), and extended counselling during the start-up with private-sector start-up consultants (III).
	Yes	Increase in start-ups, higher survival rates of new businesses
EVALUATION THEME	Business advice, coaching, mentoring and counselling	
INTERVENTION TYPE	Soft	
TARGET GROUPS	All SMEs located in North Jutland County except entrepreneurs doing business in agriculture, fisheries, fur and forestry	
SOURCE OF EVIDENCE	Academic article: (Rotger, Gørtz and Storey, 2012[19]). Assessing the effectiveness of guided preparation for new venture creation and performance: Theory and practice. *Journal of Business Venturing*, 27(4), 506-521. Available at: https://doi.org/10.1016/j.jbusvent.2012.01.003	
COUNTRY	Denmark	
REGIONAL/LOCAL	One region study, North Jutland County, Denmark	
PERFORMANCE METRICS	Survival, employment, numbers of firms with 20% growth in employment or sales	
NON-SURVIVORS INCLUDED?	Yes, firm-survival is the main outcome variable.	
DATA SOURCES	Administrative and survey data: The authors used programme data that were combined with administrative data from the Statistical Office of Denmark. Financial data available until 2006, survival data available until 2008. The authors worked with three treated groups of firms supported during 2002-2005. They divided them according to the intensity of support received. The control group was firms receiving a lower level of support. The numbers of treated firms are reported as follows: 932 enterprises supported by Level I (1 124 enterprises supported in total); 1 165 enterprises supported by Level II (1 541 enterprises supported in total), and 1 072 enterprises supported by Level III (1,525 enterprises supported in total).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) with a difference-in-differences approach The authors estimate firm-level effects from t+1 to t+3	
EVALUATION QUALITY SCORE	5	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. However, no group of non-applicant firms is used as an additional control group. Supported firms in cohorts 2002-2003, and 2004-2005 are analysed separately.	
KEY FINDINGS	The authors find a positive impact of the programme on firm survival. The authors also report mostly positive effects on employment, turnover and growth. However, some of the coefficients were statistically insignificant.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through the programmes was approximately 1 mil. USD. in 2009.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors have presented the results to policymakers. However, they are not aware of any specific policy changes driven by their evaluation.	

Table B.19. The effect of business coaching on New Technology Based Firms: Survival–findings and lessons learned from a randomized controlled trial

TABLE REFERENCE	B19	
PROGRAMME NAME	Business coaching programme for new technology-based firms	
DATES	Years when the programme was operating: 2016-2017 Evaluation period: 2016-2017 Year of the report: 2019 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to increase survival rates of new technology-based firms through the facilitation of tactical business coaching.
	Yes	Increased firm survival, increase in entrepreneurial skills
EVALUATION THEME	Business advice, coaching, mentoring and counselling	
INTERVENTION TYPE	Soft	
TARGET GROUPS	New technology-based firms	
SOURCE OF EVIDENCE	Academic article published in conference proceedings: (Ungerer et al., 2019[20]). The Effect of Business Coaching on NTBF Survival–Findings and Lessons Learned from a Randomized Controlled Trial. In Pallot, A., Zarli, A., Razek, A., R., A., Lecossier, A. (Eds.). 2019 *IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC),* 1-10. Available at: https://doi.org/10.1109/ICE.2019.8792604	
COUNTRY	Germany	
REGIONAL/LOCAL	One region study, experiment conducted in Baden-Wuerttemberg state	
PERFORMANCE METRICS	Firm survival, business scale-up	
NON-SURVIVORS INCLUDED?	Yes, this is the main outcome variable	
DATA SOURCES	Survey data: Data were collected from a survey among participants. 36 treated firms (101 supported in total) and 57 non-supported firms.	
STEP LEVEL	6	
METHODS	Randomized controlled trial (RCT) The research team initially allocated firms randomly into treatment and control groups. However, after the experiment started, they did not manage to fulfil their initial selection and thus, the original samples were combined. The authors estimate effects in t+1 year	
EVALUATION QUALITY SCORE	3	
RELIABILITY COMMENTS	The analysis intended to tackle the issue of area and selection bias through conducting a randomized controlled trial. However, the study relies only on survey data and the authors fail in meeting implied analytical assumptions as they did not manage to control the firm distribution, i.e. to carry out the treatment to the firms according to the initial randomization into groups.	
KEY FINDINGS	The authors do not find conclusive effects on firm survival. The authors provide a valuable lesson on the procedures of a randomized controlled trial.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through both programmes was 500 mil. EUR.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors have presented the results to the Nesta, an organization that funded the RCT and that generally supports the execution of experiments in the field of business. The organisation may use the results to improve instructions for future studies, however, the authors are not familiar with the specific outcomes.	

Table B.20. The impact of consulting services on small and medium enterprises: Evidence from a randomized trial in Mexico

TABLE REFERENCE	B20
PROGRAMME NAME	Business counselling services for SMEs in Puebla region
DATES	Years when the programme was operating: 2008-2009 Evaluation period: 2005-2014 Year of the report: 2018 (Published)

STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to expand the managerial skills of the owners/managers of SMEs by giving them access to subsidised consulting and mentoring services.
	Yes	Better firm performance, increase in entrepreneurial and managerial skills
EVALUATION THEME	Business advice, coaching, mentoring and counselling	
INTERVENTION TYPE	Soft	
TARGET GROUPS	SMEs	
SOURCE OF EVIDENCE	Academic article: (Bruhn, Karlan and Schoar, 2018[21]). The impact of consulting services on small and medium enterprises: Evidence from a randomized trial in Mexico. *Journal of Political Economy*, *126*(2), 635-687. Available at: https://doi.org/10.1086/696154	
COUNTRY	Mexico	
REGIONAL/LOCAL	One region study, experiment conducted in Puebla region	
PERFORMANCE METRICS	Employment, total factor productivity, return on assets (ROA), wages, managerial and entrepreneurial skills	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Survey and administrative data: Data were obtained via follow-up survey and from administrative data on employment and wages from the Mexican Social Security Institute (IMSS). 150 treated firms and 282 non-supported firms.	
STEP LEVEL	6	
METHODS	Randomized controlled trial (RCT) Programme applicants were randomly allocated into treatment and control groups. The authors estimate effects from t+1 to t+5	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	The analysis tackles the issue of area and selection bias through conducting a randomized controlled trial (RCT). The RCT was conducted in a very transparent way.	
KEY FINDINGS	The authors find positive effects on total factor productivity, return on assets, wages, employment and entrepreneurial skills.	
PROGRAMME EXPENDITURE	The average cost of the consulting services was 11 856 USD per firm.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors presented the results to the government, but the unit that implemented the programme was later shut down for reasons unrelated to the programme, so they did not have a chance to continue or modify the programme.	

Table B.21. Broader or deeper? Exploring the most effective intervention profile for public small business support

TABLE REFERENCE	B21	
PROGRAMME NAME	Business Link Programme	
DATES	Years when the programme was operating: 2003 Evaluation period: 2003-2005 Year of the report: 2011 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The Business Link Programme aimed to improve performance of small businesses in the UK through the allocation of soft business support, such as counselling and advisory services. The programme recipients received different types and intensities of soft support from the local Business Link Organisations and their partner organisations.
	Yes	Better firm performance, increase in skills of management and employees
EVALUATION THEME	Business advice, coaching, mentoring and counselling	
INTERVENTION TYPE	Soft	
TARGET GROUPS	SMEs in the UK	
SOURCE OF EVIDENCE	Academic article: (Mole et al., 2011[22]). Broader or deeper? Exploring the most effective intervention profile for public small business support. *Environment and Planning A*, *43*(1), 87-105. Available at:https://doi.org/10.1068/a43268	

COUNTRY	United Kingdom
REGIONAL/LOCAL	One country study
PERFORMANCE METRICS	Employment, sales, sales revenue per employee
NON-SURVIVORS INCLUDED?	No
DATA SOURCES	Survey and administrative data: Data were obtained via follow-up survey, from the Dun and Bradstreet UK database and from the government's Small Business Service (SBS). A randomly selected sample of 2 296 supported firms and 1 152 non-supported firms in 2003. 1 130 firms received intensive support and 1 166 firms received less intensive support.
STEP LEVEL	6
METHODS	Two-stage Heckman selection model The authors estimate effects in t+1.5 (18 months)
EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	The analysis tackles the issue of selection bias. However, it does not reflect the regional dimension of support recipients. The results are weighted across survey sampling. The authors report results across the intensity (less vs more intense) and type of public support (managed brokerage, light-touch brokerage, pipeline forcing, managed brokerage pipeline forcing).
KEY FINDINGS	The authors find a positive impact of the intensive support on employment and sales growth, and a negative impact of less intensive support on sales per employee.
PROGRAMME EXPENDITURE	The authors report that the average costs per company supported were 527.63 GBP.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The authors have presented results to the government and the evaluation was used to adjust the Business Link Programme in the shape of the new Growth Accelerator Programme.

Internationalisation

Table B.22. The effect of grant receipt on start-up size: Evidence from plant level data

TABLE REFERENCE	B22	
PROGRAMME NAME	Grants for industrial development allocated by the Industrial Development Agency (IDA) and by Forbairt, Ireland	
DATES	Years when the programme was operating: 1970-ongoing Evaluation period: 1972-2000 Year of the report: 2010 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to increase employment through investment subsidies (i.e. grants for industrial development) allocated to start-ups (new firms) in manufacturing.
	Yes	Increase in employment
EVALUATION THEME	Internationalisation; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	New start-ups (plants) in manufacturing	
SOURCE OF EVIDENCE	Academic article: (Girma et al., 2010[23]). The effect of grant receipt on start-up size: Evidence from plant level data. *Journal of International Entrepreneurship*, *8*(4), 371-391. Available at: https://doi.org/10.1007/s10843-010-0061-y	
COUNTRY	Ireland	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment	
NON-SURVIVORS INCLUDED?	Yes, 10% of all start-ups had already closed down by the second year.	
DATA SOURCES	Administrative and survey data: Data were provided by Forfás, the Irish policy and advisory board and by the Industrial Development Agency (IDA).	

	3 409 firms supported during 1972-2000 (of 3 901 firms supported in total during 1972-2000), 1 144 non-supported firms (non-applicants).
STEP LEVEL	6
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach, ordinary least squares (OLS) and quantile regressions The authors estimate firm-level effects in t+1
EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	Analysis tackles the issue of area and industry bias. Effects across firm size are reported.
KEY FINDINGS	The authors find positive effects of the programme on employment. They find greater effects for foreign firms when compared to domestic firms. They also found heterogeneous effects across the firm size.
PROGRAMME EXPENDITURE	The authors report that the average costs per company supported were 553 286 EUR.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	N/A

Innovation

Table B.23. Entrepreneurship policy and firm performance Chile's CORFO seed capital programme

TABLE REFERENCE	B23	
PROGRAMME NAME	Chile's CORFO Seed Capital Programme	
DATES	Years when the programme was operating: 2001-ongoing Evaluation period: 2008-2013 Year of the report: 2018 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 The programme targets innovative, dynamic projects that would not otherwise be able to start up or grow. Beneficiaries receive a subsidy from CORFO agency to create and develop new innovative firms with high growth potential. The programme aims to boost start-ups' sales and their ability to obtain external funding.
Final objectives available	Yes	Higher economic growth, increase in the number of high-growth start-ups
EVALUATION THEME	Innovation; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	New high-growth oriented start-ups from Chile	
SOURCE OF EVIDENCE	Academic article: (Navarro, 2018[24]). Entrepreneurship policy and firm performance Chile's CORFO Seed Capital Program. *Estudios de Economía*, *45*(2), 301-316. Available at: https://estudiosdeeconomia.uchile.cl/index.php/EDE/article/view/51345/53731	
COUNTRY	Chile	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	New business formation, firm survival, increase in sales	
NON-SURVIVORS INCLUDED?	Yes, firm survival is one of the outcome variables.	
DATA SOURCES	Administrative data: Data were obtained from the CORFO agency. 376 projects supported during 2008-2012, 167 non-supported projects (rejected applicants). However, the authors acknowledge that initially there were 629 projects applying for the funding.	
STEP LEVEL	5	
METHODS	Panel data approach Ordinary least squares (OLS) regressions The authors estimate firm-level effects in t+1	
EVALUATION QUALITY SCORE	2	

RELIABILITY COMMENTS	The analysis does not fully tackle the issue of area and industry bias as the number of control variables is limited. A control group of non-applicants is not included in the analysis.
KEY FINDINGS	The authors find positive effects of the programme on the new business formation, firm survival and sales growth.
PROGRAMME EXPENDITURE	The average amount of public resources allocated to the recipients of the programme was 67 000 USD.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The author has presented results to the Chilean development agency and based on his recommendations, the policymakers focused more on the selection of the projects, when allocating public support.

Table B.24. Retaining winners: Can policy boost high-growth entrepreneurship?

TABLE REFERENCE	B24	
PROGRAMME NAME	Finnish Governmental National Technology Agency's (TEKES) programme NIY (Finnish acronym for young innovative growth companies)	
DATES	Years when the programme was operating: 2008-2012 Evaluation period: 2006-2013 Year of the report: 2016 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 The programme aimed to support young innovative and high-growth-oriented firms.
Final objectives available	Yes	Increase in number of fast-growing young ventures, increase in high-growth-oriented firms
EVALUATION THEME	Innovation; Business advice, coaching, mentoring and counselling	
INTERVENTION TYPE	Hard & Soft	
TARGET GROUPS	Young Finnish innovative ventures	
SOURCE OF EVIDENCE	Academic article: (Autio and Rannikko, 2016[25]). Retaining winners: Can policy boost high-growth entrepreneurship?. *Research policy*, 45(1), 42-55. Available at:https://doi.org/10.1016/j.respol.2015.06.002	
COUNTRY	Finland	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Sales	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Administrative and survey data: Data were obtained from National Technology Agencys (TEKES), from official statistics of financial records and other surveys. 56 firms supportedduring 2008-2010 in Sweden (of 160 firms supported in total), 101 non-supported Finnish firms (non-applicants) and (rejected applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) with a difference-in-differences approach The authors estimate firm-level effects from t+1 to t+3	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias.	
KEY FINDINGS	The authors find that supported companies reported higher growth in sales by 120 percentage points compared to non-supported firms. Using multiplication analysis, the authors find that one Euro of public funding had generated 1.11 Euro of surplus sales growth (beyond trend growth) by 2013.	
PROGRAMME EXPENDITURE	641.5 ths. EUR per supported venture (102.64 mil. EUR in total) allocated through the Finnish Government's National Technology Agency during 2008-2012 in Finland.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The results were presented to the government and disseminated to relevant stakeholders in Finland.	

Table B.25. Can grants to consortia spur innovation and science-industry collaboration? Regression-discontinuity evidence from Poland

TABLE REFERENCE	B25	
PROGRAMME NAME	Polish In-Tech programme on science-industry collaboration, research and innovation, and product commercialisation	
DATES	Years when the programme was operating: 2012-2013 Evaluation period: 2012-2016 Year of the report: 2017 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The objective of the programme was to enhance the innovation activity of Polish enterprises through the allocation of innovation subsidies. The innovation subsidies were distributed by Poland's National Centre for Research and Development (NCBiR) to partnership projects submitted by a team of a firm and a partner research institution (e. g. university).
	Yes	Increase in innovation activity
EVALUATION THEME	Innovation	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Technology-oriented firms in Poland aiming to improve their innovation capacities	
SOURCE OF EVIDENCE	Working paper: (Bruhn and McKenzie, 2019[26]). Can grants to consortia spur innovation and science-industry collaboration? Regression-discontinuity evidence from Poland. *The World Bank Policy Research Working Series*, Paper No. 7934. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/25943/WPS7934.pdf?sequence=1	
COUNTRY	Poland	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Patent application, publication of a scientific article, citations, development of new industrial design, prototype, product, process, commercialisation of a new product/process, share of sales from new products/processes, new collaboration, commercialisation index, research and innovation index, collaboration index	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Survey and administrative data: Programme data obtained from the National Center for Research and Development (NCBiR) and from the follow-up survey. 158 firms supported by the programme (164 firms were supported in total) and 301 non-supported firms (rejected applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Regression discontinuity design (RDD) The authors estimate firm-level effects from t+2.5 to t+3.5 (years)	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	The analysis tackles the issue of area and industry bias. Most of the outcome variables are measured through a results of survey. Wide range of outcome variables.	
KEY FINDINGS	The authors find that the programme improved science-industry collaboration, increased the probability of applying for a patent and probability of publishing an academic article, and they also report positive effects on the commercialisation of new products/processes (including sales).	
PROGRAMME EXPENDITURE	The average amount of public resources allocated to the recipients of the programme was 660 000 USD.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors presented the results to the government, and report that the representatives of the public administration said that their evaluation contributed to encouragement of evidence-based innovation policy design in Poland. The evaluation was further used to support an extension of programmes focusing on innovation grants, R&D grants, and science and technology grants provided by NCBiR.	

Table B.26. Do selected firms show higher performance? The case of Portugal's innovation subsidy

TABLE REFERENCE	B26	
PROGRAMME NAME	Portuguese Innovation Incentive System (SI Innovation), an instrument of the National Strategic Reference Framework (NSRF), included in the Operational Programme for Competitiveness Factors (COMPETE)	
DATES	Years when the programme was operating: 2007-2013 Evaluation period: 2006-2016 Year of the report: 2019 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to promote innovation in the business sector, support firms' progression in the value chain, their orientation to international markets, and stimulate qualified entrepreneurship and investments in new areas with growth potential.
	Yes	Increased innovation, increased competitiveness
EVALUATION THEME	Innovation	
INTERVENTION TYPE	Hard	
TARGET GROUPS	New and established firms with innovation potential operating in Portugal	
SOURCE OF EVIDENCE	Academic article: (Santos, 2019[27]). Do selected firms show higher performance? The case of Portugals innovation subsidy. *Structural Change and Economic Dynamics*, 50, 39-50. Available at: https://doi.org/10.1016/j.strueco.2019.04.003	
COUNTRY	Portugal	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment, sales, EBITDA, gross value added (GVA), labour productivity, total factor productivity (TFP), value creation, tangible fixed assets, patent stock	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Administrative and commercial data: Firm-level data from the Amadeus database (Bureau van Dijk), in combination with data from the Portuguese National Institute of Statistics (INE) and the Information System of the Portuguese NSRF Incentive Systems. 134 firms supported by soft loans (of about 2 600 firms supported in total) and 186 non-supported firms (rejected applicants).	
STEP LEVEL	5	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects from t+1 to t+4	
EVALUATION QUALITY SCORE	3	
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. Long-term effects are analysed. Representation of treated firms is, however, rather small. An additional control group of non-applicants is missing.	
KEY FINDINGS	The evaluation finds positive effects on investments, sales, technological progress and job creation, however, negative effects on labour productivity and value creation.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through SI Innovation was 2 000 mil. EUR.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The author has sent the results to the government officials in charge of European Union funding.	

Table B.27. The impact of government-supported participative loans on the growth of entrepreneurial ventures

TABLE REFERENCE	B27
PROGRAMME NAME	EBT and PYME participative loans (loan contracts) programmes allocated by the governmental agency Empresa Nacional de Innovacin (ENISA).
DATES	Years when the programme was operating: 2005-2011 Evaluation period: 2005-2014 Year of the report: 2019 (Published)

STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 Young ventures were supported by two programmes, the PYME programme that aimed to support high-growth entrepreneurial ventures and the EBT programme that supported high-technology firms.
	Yes	Improved access to finance, increased competitiveness
EVALUATION THEME	Innovation; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Young entrepreneurial SMEs in Spain	
SOURCE OF EVIDENCE	Academic article: (Bertoni, Martí and Reverte, 2019[28]). The impact of government-supported participative loans on the growth of entrepreneurial ventures. *Research Policy*, 48(1), 371-384. Available at: https://doi.org/10.1016/j.respol.2018.09.006	
COUNTRY	Spain	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment, sales, survival rate	
NON-SURVIVORS INCLUDED?	Yes, it is one of the outcome variables.	
DATA SOURCES	Administrative and accounting data:Accounting data (source not reported) and administrative data obtained from a governmental agency ENISA. 512 firms established after 2003 that received a participative loan from ENISA between 2005 and 2011 (of 293 firms supported by EBT and 466 firms supported by PYME in total) and a control group of 9 050 firms founded in Spain between 2003 and 2011 (randomly selected).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach and 2-stage least squares (2SLS), GMM, fixed effects and OLS regressions The authors estimate firm-level effects from t+1 to t+2	
EVALUATION QUALITY SCORE	5	
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. Many different evaluation methods (PSM + DID, 2SLS regressions, dynamic panel regressions) are used. Separate effects for young, small and high-tech firms, intensity of public support and during the financial crisis are reported. The authors analyse together the EBT and PYME schemes and programmes. Separate results across programmes are not reported.	
KEY FINDINGS	The authors find positive effects on employment and sales. The effects are larger for high-tech, young and small entrepreneurial ventures and for those that received a participative loan during the global financial crisis. The evaluation failed to find a statistically significant effect on survival rates.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through both programmes during 2005-2011 was 263.5 mil. EUR.	
MACRO IMPACT	The authors estimate that one mil. EUR invested in participative loans generates 12 114.7 jobs and 1 091.97 mil. EUR in sales.	
POLICY IMPACT OF THE EVALUATION	The evalution was presented to the ENISA institution and to other high-rank officials of the government. It served to endorse the evaluated schemes as well as a new scheme for young entrepreneurs that started as a pilot programme in 2010.	

Table B.28. Inside the black box of outcome additionality: Effects of early-stage government subsidies on resource accumulation and new venture performance

TABLE REFERENCE	B28	
PROGRAMME NAME	VINN NU (Win Now) programme operated by the Swedish Governmental Agency for Innovation Systems (VINNOVA)	
DATES	Years when the programme was operating: 2002-2008 Evaluation period: 2001-2011 Year of the report: 2015 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 3 The programme aimed to support new innovative and high-growth-oriented firms.
	Yes	Increase in number of new and innovative start-ups, increase in number of high-growth-oriented firms
EVALUATION THEME	Innovation; Finance	

INTERVENTION TYPE	Hard
TARGET GROUPS	New Swedish innovative ventures
SOURCE OF EVIDENCE	Academic article: (Söderblom et al., 2015[29]). Inside the black box of outcome additionality: Effects of early-stage government subsidies on resource accumulation and new venture performance. *Research Policy*, *44*(8), 1501-1512. Available at:https://doi.org/10.1016/j.respol.2015.05.009
COUNTRY	Sweden
REGIONAL/LOCAL	One country study
PERFORMANCE METRICS	Employment, equity, sales
NON-SURVIVORS INCLUDED?	Yes, 13% of the sample went out of business.
DATA SOURCES	Administrative data: Data were obtained from Swedish Governmental Agency for Innovation Systems (VINNOVA). 130 firms supportedduring 2002-2008 in Sweden (100% of population), 154 non-supported firms from Sweden (rejected applicants).
STEP LEVEL	6
METHODS	Panel data approach Propensity score matching (PSM) with a difference-in-differences approach The authors estimate firm-level effects from t+1 to t+7
EVALUATION QUALITY SCORE	5
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias.
KEY FINDINGS	The authors find positive effects on employment, sales and external equity funding.
PROGRAMME EXPENDITURE	28 ths. EUR per supported venture (3.64 mil. EUR in total) allocated through Swedish Governmental Agency for Innovation Systems during 2002-2008 in Sweden.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The results from the study were presented on several occasions to government representatives and other policymakers, including Swedish Governmental Agency for Innovation Systems (VINNOVA). VINNOVA launched a new and more extensive programme, Innovative Startups, replacing the programme the study investigated, and the study had some impact on that decision.

Table B.29. Impact of Swiss technology policy on firm innovation performance: an evaluation based on a matching approach

TABLE REFERENCE	B29	
PROGRAMME NAME	Swiss innovation policy administered by the Commission of Technology and Innovation (CTI)	
DATES	Years when the programme was operating: 2000-2002 Evaluation period: 2000-2004 Year of the report: 2010 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The objective of the programme was to enhance the innovation activity of Swiss enterprises through the allocation of innovation subsidies. The innovation subsidies are distributed to partnership projects that have been submitted by a team of firm and a partner research institution (e. g. university).
	Yes	Increase in innovation activity
EVALUATION THEME	Innovation; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Technology-oriented firms in Switzerland aiming to improve their innovation capacities	
SOURCE OF EVIDENCE	Academic article: (Arvanitis, Donzé and Sydow, 2010[30]). Impact of Swiss technology policy on firm innovation performance: an evaluation based on a matching approach. *Science and Public Policy*, *37*(1), 63-78. Available at: https://doi.org/10.3152/030234210X491623	
COUNTRY	Switzerland	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Share of sales from new products, share of sales from new markets worldwide, percentage increase in sales, percentage reduction of average variable production costs due to the innovation process, economic importance of the innovations introduced, technical importance of the innovations introduced	

NON-SURVIVORS INCLUDED?	No.
DATA SOURCES	Survey and administrative data: Firm-level data obtained from the Commission of Technology and Innovation (CIT). 199 firms supported by the programme (307 firms were supported in total) and 996 non-supported firms (non-applicants) that participated in the Swiss Innovation Survey 2002 and reported the introduction of innovations in the period 2000-2002.
STEP LEVEL	6
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects from t+1 to t+2
EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	The analysis tackles the issue of area and industry bias. Most of the outcome variables are measured through a results survey and two of them as ordinary variables.
KEY FINDINGS	The authors find that the programme improved the innovation performance of supported firms with respect to six different measures of innovation performance.
PROGRAMME EXPENDITURE	The total amount of public resources allocated the programme during the years 2000-2002 was 120 mil. Swiss francs (CHF).
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The results were presented to the Commission of Technology and Innovation (CTI) and the study encouraged usage of econometric methods for programme evaluation for projects financed by the CTI.

Table B.30. Evaluating effectiveness of public support to business R&D in Türkiye through concepts of input and output additionality

TABLE REFERENCE	B30	
PROGRAMME NAME	The TUBITAK-TEYDEB Public R&D Programme administered by the Scientific and Technological Research Council of Türkiye (TUBITAK)	
DATES	Years when the programme was operating: 1995-ongoing Evaluation period: 2003-2006 Year of the report: 2011 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The objective of the programme was to enhance the international competitiveness of industrial companies in Turkey by means of higher R&D and innovation expenditures.
	Yes	Increase in innovation activity, increased competitiveness
EVALUATION THEME	Innovation; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Technology-oriented firms in Türkiye aiming to improve their innovation capacities	
SOURCE OF EVIDENCE	Academic working paper: (Tandogan and Pamukcu, 2011[31]). Evaluating effectiveness of public support to business R&D in Turkey through concepts of input and output additionality. *Economic Research Forum Working Paper 593,* The Economic Research Forum (ERF), Egypt. Available at: http://erf.org.eg/wp-content/uploads/2014/08/593.pdf	
COUNTRY	Türkiye	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	R&D intensity, R&D expenditures per employee, share of R&D personnel, export intensity, import intensity	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Survey and administrative data: Firm-level data from the Structural Business Statistics Survey (SBS), Foreign Trade Statistics, General Census of Industry and Establishments and Producers Price Index collected by the Turkish Statistical Institute (Turkstat) and administrative data maintained by the governmental agency TUBITAK. 97 firms supported by the programme in 2004 (326 firms were supported in 2004 in total) and 6 511 non-supported firms (non-applicants).	
STEP LEVEL	6	

METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects from t+1 to t+2
EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	The analysis does not tackle the issue of area bias. It addresses only industry bias. The authors do not include regional variables in the matching regression.
KEY FINDINGS	The authors find only a positive change in share of R&D personnel, R&D expenditures per employee and R&D intensity for the programme participants. The effects for the remaining variables were not found to be statistically significant.
PROGRAMME EXPENDITURE	The total amount of public resources allocated the programme in 2004 was 491 mil. USD.
MACRO IMPACT	The authors follow-up on time series of the R&D outcome indicators for the whole country and they assume a positive trend related to the public programme, however, no direct associations are tested.
POLICY IMPACT OF THE EVALUATION	The authors presented the study to the policymakers and stakeholders, however, they are not aware of any specific changes implemented based on their evaluation.

Table B.31. Boon or boondoggle? Business incubation as entrepreneurship policy

TABLE REFERENCE	B31	
PROGRAMME NAME	Business incubators in the United States.	
DATES	Years when the programme was operating: 1990-2007 Evaluation period: 1990-2008 Year of the report: 2010 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 The programme aimed to support new innovative and high-growth-oriented firms (depending on the type of incubator).
Final objectives available	Yes	Employment growth, increase in the firms survival rates, increase in number of high-growth-oriented firms
EVALUATION THEME	Innovation; Finance	
INTERVENTION TYPE	Hard & Soft	
TARGET GROUPS	New businesses less than 5 years old	
SOURCE OF EVIDENCE	Published doctoral dissertation (Academic): (Amezcua, 2010[32]).Boon or Boondoggle? Business Incubation as Entrepreneurship Policy,*ProQuest Dissertations Publishing*,Syracuse University. Available at:https://search.proquest.com/docview/874370586?accountid=17203.	
COUNTRY	United States	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Survival, sales, employment	
NON-SURVIVORS INCLUDED?	Yes, survival is one of the outcome variables.	
DATA SOURCES	Administrative and survey data: Data were obtained from a panel of demographic information on business incubators from the National Business Incubation Association, and from the National Establishment Time-Series Database (NETS). 18 426 firms incubated firms (from 65 incubators), 28 346 non-incubated firms.	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) with a difference-in-differences approach,generalized method of moments (GMM) regressions,Hausman-Taylor generalized IV regressions The author estimates firm-level effects from t+1	
EVALUATION QUALITY SCORE	5	

RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias.
KEY FINDINGS	The results show that incubated firms have a slightly lower survival rate, but slightly higher employment and sales growth than non-incubated firms. The evaluation finds that firms from university-sponsored incubators report better results compared to other incubators. The results also show that tenants of profit-oriented incubators outperform firms from non-profit incubators.
PROGRAMME EXPENDITURE	N/A
MACRO IMPACT	The author predicted annual growths of survival, sales and employment for the population of incubated and non-incubated firms. The prediction shows, based on employment and sales performance, that incubation generally has a positive effect but there are net losses in employment and sales for the incubated group. Firms in incubation are better off than had they not been incubated, but they are still more likely to fail and not grow.
POLICY IMPACT OF THE EVALUATION	N/A

Enterprise Skills and Culture

Table B.32. Counterfactual impact evaluation on EU cohesion policy interventions in training in companies

TABLE REFERENCE	B32	
PROGRAMME NAME	The Human Resources and Employment Operational Programme (HREOP), Czech Republic	
DATES	Years when the programme was operating: 2007-2013 Evaluation period: 2008-2012 Year of the report: 2016 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to support the competitiveness of companies through the development of professional knowledge, competence and improvement in the qualification of employees. Supported companies benefitted from various training activities. These were especially focused on modern management methods and human resource management.
	Yes	Higher firm performance, increase in employee and management skills
EVALUATION THEME	Enterprise skills and culture	
INTERVENTION TYPE	Soft	
TARGET GROUPS	Firms in the Czech Republic	
SOURCE OF EVIDENCE	Academic article: (Potluka et al., 2016[33]). Counterfactual Impact Evaluation on EU Cohesion Policy Interventions in Training in Companies. *Ekonomicky Casopis*, *64*(6), 575-595. Available at: https://www.ceeol.com/search/article-detail?id=443303	
COUNTRY	Czech Republic	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Administrative data: Data were collected from the programme monitoring system Monit7+ and from the Czech Statistical Office (CZSO). 373 treated firms supported during 2009-2012 (of 1 447 firms supported in total), 202 non-supported firms (of 1 183 rejected applicants in total).	
STEP LEVEL	6	
METHODS	Panel data approach Instrumental variables (IV) approach The authors estimate firm-level effects in t+1	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias.	

KEY FINDINGS	The authors do not find statistically significant positive effects on employment.
PROGRAMME EXPENDITURE	The total amount of public resources allocated through trainings to the firms was 618 mil. EUR.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The results were presented at the Ministry of Labour and Social Affairs for the relevant stakeholders. The authors recommended to the Ministry representatives to focus training support on smaller firms and only on hard skills. These recommendations were adopted by the Ministry in the subsequent programming period. Specifically training activities focusing on soft skills have been removed from the eligible list of training activities.

Table B.33. The impact of entrepreneurship education on entrepreneurship skills and motivation

TABLE REFERENCE	B33	
PROGRAMME NAME	Junior Achievement Young Enterprise student mini-company (SMC) programme coordinated by the Jong Ondernemen Association	
DATES	Years when the programme was operating: 2005 Evaluation period: 2005-2006 Year of the report: 2010 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to improve (build) entrepreneurial competences, skills and intentions of young students through the student mini-company (SMC) programme. The students were involved in the development of a small-sized and short-duration business from its early establishment supported by one or two advisers from the business world.
	Yes	Higher entrepreneurial competences, skills and intentions of students
EVALUATION THEME	Enterprise skills and culture	
INTERVENTION TYPE	Soft	
TARGET GROUPS	University students in areas of management, economics and law	
SOURCE OF EVIDENCE	Academic article: (Oosterbeek, van Praag and Ijsselstein, 2010[34]). The impact of entrepreneurship education on entrepreneurship skills and motivation. *European Economic Review*, *54*(3), 442-454. Available at: https://doi.org/10.1016/j.euroecorev.2009.08.002.	
COUNTRY	Netherlands (However, the programme operates worldwide)	
REGIONAL/LOCAL	One country study, the evaluation focused on the three locations of one University (AVANS Hogeschool)	
PERFORMANCE METRICS	Entrepreneurial competences and intentions (validated scales) measured as need for achievement, need for autonomy, need for power, social orientation, self efficacy, endurance, risk taking propensity, market awareness, creativity, flexibility	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Survey data: Data were collected via non-anonymous surveys at the presences of staff and lecturers. 104 students that participated in the programme (189 students participated in total), 146 non-supported students (non-participants).	
STEP LEVEL	5	
METHODS	Panel data approach A difference-in-differences (DID) approach and a DID combined with an instrumental variables (IV) approach The authors estimate firm-level effects in t+1	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. However, the control variables do not include student´s home town´s (regional) variables. Effects across gender are reported.	
KEY FINDINGS	The authors find that students' self-assessed entrepreneurial skills (and traits) did not improve after the participation in the programme and the effect of the programme on entrepreneurial intentions was found to be negative.	
PROGRAMME EXPENDITURE	N/A	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	N/A	

Table B.34. The effect of a tax training programme on tax compliance and business outcomes of starting entrepreneurs: Evidence from a field experiment

TABLE REFERENCE	B34	
PROGRAMME NAME	Netherlands' Tax and Customs Administration (NTCA) tax training programme	
DATES	Years when the programme was operating: 2008-2009 Evaluation period: 2008-2012 Year of the report: 2019 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The training programme aimed to increase tax compliance of newly established entrepreneurs and to improve their business outcomes as a result of more efficient dealing with tax authorities and business legislation.
	Yes	Increased tax compliance, higher firm performance
EVALUATION THEME	Enterprise culture and skills	
INTERVENTION TYPE	Soft	
TARGET GROUPS	New first-time entrepreneurs	
SOURCE OF EVIDENCE	Academic article: (Nagel et al., 2019[35]). The effect of a tax training program on tax compliance and business outcomes of starting entrepreneurs: Evidence from a field experiment. *Journal of Business Venturing*, *34*(2), 261-283. Available at: https://doi.org/10.1016/j.jbusvent.2018.10.006	
COUNTRY	Netherlands	
REGIONAL/LOCAL	One country study, the programme took place in East Netherlands	
PERFORMANCE METRICS	Firm survival, profit, business costs, filing tax return correct, complete and in time, and paying the amount of taxes due in time, bookkeeping skills	
NON-SURVIVORS INCLUDED?	Yes, it is one of the outcome variables.	
DATA SOURCES	Survey and administrative data: Data were collected via surveys and from the Netherlands' Tax and Customs Administration. 352 new entrepreneurs that participated in the programme, 466 non-supported entrepreneurs (non-participants).	
STEP LEVEL	6	
METHODS	Randomized controlled trial (RCT) Programme applicants were randomly allocated into treatment and control groups. The authors estimate effects from t+1 to t+3	
EVALUATION QUALITY SCORE	5	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias through conducting a randomized controlled trial (RCT). The RCT was conducted in a very transparent way.	
KEY FINDINGS	The authors find positive effects on profit due to different handling of business costs and some areas of tax compliant behaviour, however, they find no impact on firm survival.	
PROGRAMME EXPENDITURE	N/A	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The study examined one of the changes within the NTCA's strategy and was presented to and discussed with the NTCA. The results of the study led to continuation of the training programme in an adapted version.	

Table B.35. The impact of employees' and managers' training on the performance of small-and medium-sized enterprises: Evidence from a randomized natural experiment in the UK service sector

TABLE REFERENCE	B35	
PROGRAMME NAME	Business Innovation and Skills (BIS) training programme	
DATES	Years when the programme was operating: 2002-2003 Evaluation period: 2002-2006 Year of the report: 2016 (Published)	
STATED OBJECTIVES	Yes	Objective specification score: 2 The programme aimed to expand the skills of the employees and the general management and human

Programme goal stated Final objectives available		resource management skills of owners/managers of SMEs, through the allocation of business training activities (i.e. employee training, human resource management training, and manager training).
	Yes	Higher firm performance, increase in skills of management and employees
EVALUATION THEME	Enterprise skills and culture; Business advice, coaching, mentoring and counselling	
INTERVENTION TYPE	Soft	
TARGET GROUPS	SMEs in the UK service sector	
SOURCE OF EVIDENCE	Academic article: (Georgiadis and Pitelis, 2016[36]). The impact of employees' and managers' training on the performance of small-and medium-sized enterprises: Evidence from a randomized natural experiment in the UK service sector. *British Journal of Industrial Relations*, *54*(2), 409-421. Available at:https://doi.org/10.1111/bjir.12094	
COUNTRY	United Kingdom	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Profit margin, sales revenue per employee	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Survey data: Data were obtained via follow-up survey. The final sample consisted of 430 firms responding to the survey, out of which 287 firms received at least one training activity (845 firms received at least one training activity in total) and 143 represented the control group (the initial size of the control group was 480 firms).	
STEP LEVEL	6	
METHODS	Randomized controlled trial (RCT) Programme applicants were randomly allocated into treatment and control groups. The authors estimate effects in t+2	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias through conducting a randomized controlled trial (RCT). The analysis relies on survey data.	
KEY FINDINGS	The authors generally find positive effects on profit margin and sales revenue per employee for firms participating in at least one training activity. However, the authors also study the effects of different training activities, and there the effects vary across the type of training.	
PROGRAMME EXPENDITURE	N/A	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors are not aware of any policy impact of the evaluation.	

Table B.36. Behind the GATE experiment: Evidence on effects of and rationales for subsidized entrepreneurship training

TABLE REFERENCE	B36	
PROGRAMME NAME	Project Growing America through Entrepreneurship (GATE)	
DATES	Years when the programme was operating: 2003-2005 Evaluation period: 2003-2005 Year of the report: 2015 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 GATEs objective was to help emerging entrepreneurs in rural and urban communities to establish their own business. The programme randomly offered free entrepreneurship training to individuals (applicants) interested in starting or improving their established business.
	Yes	Increase in start-ups, increase in entrepreneurial skills
EVALUATION THEME	Enterprise skills and culture	
INTERVENTION TYPE	Soft	
TARGET GROUPS	Individuals interested in starting or improving their business, focused mainly on unemployed individuals	
SOURCE OF EVIDENCE	Academic article: (Fairlie, Karlan and Zinman, 2015[37]). Behind the GATE experiment: Evidence on effects of and rationales for subsidized entrepreneurship training. *American Economic Journal: Economic Policy*, 7(2), 125-61. Available at:http://dx.doi.org/10.1257/pol.20120337	
COUNTRY	United States	

REGIONAL/LOCAL	One country study, training is offered at seven sites in three states
PERFORMANCE METRICS	Business start-up, household income, employment, sales
NON-SURVIVORS INCLUDED?	Yes, 20% firms went out of business.
DATA SOURCES	Administrative data and survey data: Data were obtained from the US Department of Labor and the Small Business Administration (SBA) and from a survey among participants 2 094 participants and 2 103 non-participants (applicants)
STEP LEVEL	6
METHODS	Randomized controlled trial (RCT) Programme coordinators randomized applicants to treatment or control with equal probability The authors estimate effects (Difference-in-Differences DID) in t+6, t+18 and t+60 months
EVALUATION QUALITY SCORE	5
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias.
KEY FINDINGS	The authors find positive short-term effects on business start-up, but the effects mitigated in the long-run. The authors do not find positive effects on business performance.
PROGRAMME EXPENDITURE	Total costs of providing training to GATE recipients were estimated as 1 321 USD per person (approximately 2 766 ths. USD). The authors conclude that the programme was not cost-efficient.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The results were presented to the representatives of the U.S. Small Business Administration. Because of the findings, the U.S. Department of Labor asked for help in designing a new pilot programme, which included some of the recommendations the authors made. In particular, it provides a small amount of seed capital and targets only individuals with previous experience in the same industry as the proposed business. The pilot programme is under evaluation.

Inclusive Entrepreneurship

Table B.37. The effects of micro-entrepreneurship programmes on labour market performance: experimental evidence from Chile

TABLE REFERENCE	B37	
PROGRAMME NAME	Micro-entrepreneurship Support Programme (MESP)	
DATES	Years when the programme was operating: 2002-ongoing Evaluation period: 2010-2014 Year of the report: 2018 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to provide individuals with the skills and capital required to generate income through self-employment by developing their own businesses. The programme targets individuals from extremely poor households who receive start-up subsidy, training and mentoring.
	Yes	Poverty reduction, increase in earnings, increase in start-ups
EVALUATION THEME	Inclusive entrepreneurship; Business advice, coaching, mentoring and counselling; Finance	
INTERVENTION TYPE	Hard & Soft	
TARGET GROUPS	Poor individuals (i.e. beneficiaries of the anti-poverty programme)	
SOURCE OF EVIDENCE	Academic article: (Martínez, Puentes and Ruiz-Tagle, 2018[38]). The effects of micro-entrepreneurship programs on labor market performance: experimental evidence from Chile. *American Economic Journal: Applied Economics*, *10*(2), 101-24. Available at: https://doi.org/10.1086/696154	
COUNTRY	Chile	
REGIONAL/LOCAL	One region study, experiment conducted in Santiago Metropolitan Area.	
PERFORMANCE METRICS	Employment, earnings	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Survey and administrative data: Data were obtained via follow-up survey and from the administrative data on employment and wages from the Unemployment Insurance (UI) system.	

	There were 689 treated individuals in the MESP programme, and 693 idividuals in the MESP+ programme (receiving an extra subsidy) and 566 individuals in the control group.
STEP LEVEL	6
METHODS	Randomized controlled trial (RCT) Programme applicants were randomly allocated into treatment and control groups. The authors estimate effects from t+2 to t+3
EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias through conducting a randomized controlled trial (RCT). The RCT was conducted in a very transparent way. Separate results for MESP and MESP+ programme participants are reported.
KEY FINDINGS	The authors find positive effects on employment and earnings, however, the effects are decreasing over time in the long run.
PROGRAMME EXPENDITURE	The authors conduct cost-benefit analysis of the programme by comparing the total labor income increase to the programme's direct costs which are 1 200 USD for MESP participants and 1 440 USD for MESP+ participants (1.83 mil. USD in total). They conclude that the programme´s direct benefits exceed the costs.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	Based on the evaluation efforts, the programme has been in operation over time until the present day without significant modification. The programme has been continuously evaluated on an annual basis.

Table B.38. Long term effect of public subsidies on start-up survival and economic performance: An empirical study with French data

TABLE REFERENCE	B38	
PROGRAMME NAME	ACCRE start-up support for the unemployed (Aide aux chômeurs créant ou reprenant une entreprise)	
DATES	Years when the programme was operating: 1998 Evaluation period: 1998-2006 Year of the report: 2015 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to activate unemployed individuals through public support (lump-sum payment) and encourage them to become self-employed.
	Yes	Reduction of unemployment, increase in start-ups
EVALUATION THEME	Inclusive entrepreneurship; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Unemployed individuals	
SOURCE OF EVIDENCE	Academic article: (Duhautois, Redor and Desiage, 2015[39]). Long Term Effect of Public Subsidies on Start-up Survival and Economic Performance: An Empirical Study with French Data?. Revue d'conomie industrielle, *149*(1), 11-41. Available at:https://journals.openedition.org/rei/6063	
COUNTRY	France	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Survival	
NON-SURVIVORS INCLUDED?	Yes, firm survival is the main outcome variable.	
DATA SOURCES	Administrative and survey data: Data were obtained from the SINE survey, INSEE (the French Institute of Statistics) and from an administrative database FICUS. 1 960 entrepreneurs supported in 1998 in France and 2 643 non-supported entrepreneurs (non-applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) with a difference-in-differences approach The authors estimate firm-level effects from t+1 to t+8	
EVALUATION QUALITY SCORE	5	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. The authors combine entrepreneur and firm-level data and they study long-term effects of the programme.	

KEY FINDINGS	The authors find a positive long-term impact of the programme on firm survival.
PROGRAMME EXPENDITURE	The total amount of public resources allocated through the programme was 700 mil. EUR.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	No. The authors have not presented the results to the government.

Table B.39. You can go your own way! The long-term effectiveness of a self-employment programme for welfare recipients in Germany

TABLE REFERENCE	B39	
PROGRAMME NAME	German start-up subsidy programme Einstiegsgeld	
DATES	Years when the programme was operating: 2005-ongoing Evaluation period: 2005-2011 Year of the report: 2016 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 The programme aimed to activate unemployed individuals through start-up subsidy and encourage them to become self-employed.
Final objectives available	Yes	Reduction of unemployment, increase in start-ups
EVALUATION THEME	Inclusive entrepreneurship; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Unemployed individuals	
SOURCE OF EVIDENCE	Academic article: (Wolff, Nivorozhkin and Bernhard, 2016[40]). You can go your own way! The long-term effectiveness of a self-employment programme for welfare recipients in Germany. *International Journal of Social Welfare*, *25*(2), 136-148. Available at: https://doi.org/10.1111/ijsw.12176	
COUNTRY	Germany	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Return to unemployment	
NON-SURVIVORS INCLUDED?	No.	
DATA SOURCES	Administrative data: Data were obtained from the Department of Statistics of the German Federal Employment Agency. 1 206 recepients of start-up subsidy in 2005 (treated) and a control group of 224 641 non-supported individuals (other unemployed individuals).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) The authors estimate individual-level effects from t+2 to t+6	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. The authors provide estimates across German regions and across various individual characteristics.	
KEY FINDINGS	The authors find positive and long-term effects on the probability of being employed or self-employed, i. e. economically active (in other words non-returns to unemployment).	
PROGRAMME EXPENDITURE	169.66 mil. EUR allocated through the programme during 2007-2012 in Germany.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The results of the paper were included in the annual reports of the Institute for Employment Research concerning research on the system of “Basic Income Support for Job-Seekers” (Grundsicherung für Arbeitsuchende). The authors also wrote to inform the German Federal Ministry of Labour and Social Affairs. However, the authors cannot confirm that the government incorporated any of their recommendations.	

Table B.40. New evidence on long-term effects of start-up subsidies: Matching estimates and their robustness

TABLE REFERENCE	B40	
PROGRAMME NAME	German start-up subsidy (SUS) programme Gründungszuschuss	
DATES	Years when the programme was operating: 2012-ongoing Evaluation period: 2012-2015 Year of the report: 2019 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to activate unemployed individuals through start-up subsidy and encourage them to become self-employed.
	Yes	Reduction of unemployment, increase in start-ups
EVALUATION THEME	Inclusive entrepreneurship; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Unemployed individuals	
SOURCE OF EVIDENCE	Academic article: (Caliendo and Tübbicke, 2020[41]). New evidence on long-term effects of start-up subsidies: matching estimates and their robustness. *Empirical Economics*, (forthcoming). Available at: https://doi.org/10.1007/s00181-019-01701-9	
COUNTRY	Germany	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Self- or regular employment, earnings	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Administrative and survey data: Data were obtained from the Integrated Labor Market Biographies (IEB) of the Federal Employment Agency (FEA) and from the follow-up surveys. 1 248 recepients of start-up subsidy in 2012 (20 000 treated indviduals in 2012 in total) and a control group of 1 204 non-supported individuals (other unemployed individuals).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM), instrumental variables (IV) approach The authors estimate individual-level effects in t+20 months and t+40 months	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias.	
KEY FINDINGS	The authors find positive and long-term effects on income and the probability of being employed or self-employed, i. e. economically active.	
PROGRAMME EXPENDITURE	268 mil. EUR	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors have not presented their findings to the policymakers.	

Table B.41. The outcome of coaching and training for self-employment. A statistical evaluation of outside assistance support programmes for unemployed business founders in Germany

TABLE REFERENCE	B41	
PROGRAMME NAME	German start-up subsidy programme Überbrückungsgeld (Bridging Allowance)	
DATES	Years when the programme was operating: 1986-ongoing Evaluation period: 2000-2005 Year of the report: 2015 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 The programme aimed to activate unemployed individuals through a start-up subsidy (that could have been combined with coaching and training activities, and with discretionary start-up support) and encourage them to become self-employed.

Final objectives available	Yes	Reduction of unemployment, increase in start-ups
EVALUATION THEME	Inclusive entrepreneurship, business advice, coaching, mentoring and counselling, finance	
INTERVENTION TYPE	Hard & Soft	
TARGET GROUPS	Unemployed individuals	
SOURCE OF EVIDENCE	Academic article: (Oberschachtsiek, 2015[42]). The outcome of coaching and training for self-employment. A statistical evaluation of outside assistance support programs for unemployed business founders in Germany. *Journal for Labour Market Research*, *48*(1), 1-25. Available at: https://doi.org/10.1007/s12651-014-0161-6	
COUNTRY	Germany	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Survival	
NON-SURVIVORS INCLUDED?	Yes, firm survival is the main outcome variable.	
DATA SOURCES	Administrative data: Data were obtained from the Integrated Employment Biographies (IEB) and from the Institute for Employment Research of the German Federal Employment Agency. The authors work with the four treated groups of self-employed individuals supported during 2000-2003, and they divide them according to the intensity of support received. The control group is composed of individuals receiving only the start-up subsidy (bridging allowance). The numbers of treated individuals are reported as follows: 209 040 individuals supported by start-up subsidy (of 418 856 individuals supported in total); 1 983 individuals who received an additional training (of 2 131 individuals supported in total), 10 107 individuals who received an extra coaching (of 13 737 individuals supported in total), and 17 790 individuals who received an extra discretionary start-up support (of 30 481 individuals supported in total).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) The authors estimate firm-level effects in t+3	
EVALUATION QUALITY SCORE	5	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. The authors provide estimates across German regions and across gender. Large sample study. However, no group of non-applicant entrepreneurs (or other unemployed individuals) is used as an additional control group.	
KEY FINDINGS	The authors do not find conclusive evidence that the extra forms of support (in addition to the start-up subsidy) significantly increase the survival rates of subsidised businesses. The authors find empirical support for this assumption only for some forms of extra support and only in selected regions.	
PROGRAMME EXPENDITURE	N/A	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	N/A	

Table B.42. The ambiguous effects of public assistance to youth and female start-ups between job creation and entrepreneurship enhancement

TABLE REFERENCE	B42	
PROGRAMME NAME	Start-up Programme Fare impresa (Doing Business)	
DATES	Years when the programme was operating: 2011-2015 Evaluation period: 2011-2015 Year of the report: 2019 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 The programme aimed to support youth and female business owners and unemployed individuals starting up in entrepreneurship in their early stages through allocation of soft loans and credit guarantees.
Final objectives available	Yes	Improved access to finance, reduction of unemployment
EVALUATION THEME	Inclusive entrepreneurship; Finance	
INTERVENTION TYPE	Hard	

TARGET GROUPS	Youth, females, and unemployed individuals, irrespective of age or gender, with reference to a wide range of economic activities in the manufacturing, trade and tourism sectors
SOURCE OF EVIDENCE	Academic article: (Mariani et al., 2019[43]). The ambiguous effects of public assistance to youth and female start-ups between job creation and entrepreneurship enhancement. *Scienze Regionali*, *18*(2), 237-260. Available at: https://www.rivisteweb.it/doi/10.14650/93649
COUNTRY	Italy
REGIONAL/LOCAL	One region study, programme focused on new businesses in Tuscany region
PERFORMANCE METRICS	Employment, firm survival
NON-SURVIVORS INCLUDED?	Yes, firm survival is one of the outcome variables
DATA SOURCES	Administrative data: Programme data and data from the regional job information system obtained from the regional government combined with the data obtained from the Business Register maintained by the Chambers of Commerce. 1 837 firms have received a credit guarantee in total. Out of these, 1 563 firms received, in addition, a subsidised soft loan. Firms that received also a soft loan were considered to be treated (1 563 firms), and the remaining were used as a control group (274 firms).
STEP LEVEL	6
METHODS	Panel data approach Propensity score matching (PSM) in combination with survival analysis The authors estimate firm-level effects from t+1 to t+3
EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	Analysis tackles the issue of industry bias and area bias. Separate estimates for youth and female start-ups are reported. Different kinds of treatment groups are, however, mixed together. An additional control group obtained from the population of non-applying firms is missing.
KEY FINDINGS	The authors find positive effects on firm survival and, to some extent, on further employment creation. Nevertheless, the positive effect on survival vanishes before the guaranteed loan is fully reimbursed.
PROGRAMME EXPENDITURE	N/A
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	Results were presented to the regional government and also to the wider public in a public event organised by the government. Regional start-up programmes launched after this evaluation offer microcredit in combination with a voucher to buy specialised services from consultants, which could raise managerial abilities and thus improve the quality/prospects of the supported projects.

Table B.43. Evaluation of the Spanish flat rate for young self-employed workers

TABLE REFERENCE	B43	
PROGRAMME NAME	Social security reduction programme for youth self-employment from unemployment	
DATES	Years when the programme was operating: 2013-ongoing Evaluation period: 2013-2014 Year of the report: 2017 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to activate unemployed individuals and specifically youth through social security contributions deduction and encourage them to become self-employed.
	Yes	Reduction of unemployment, increase in start-ups
EVALUATION THEME	Inclusive entrepreneurship; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Unemployed youth individuals	
SOURCE OF EVIDENCE	Academic article: (Cueto, Mayor and Suárez, 2017[44]). Evaluation of the Spanish flat rate for young self-employed workers. *Small Business Economics*, *49*(4), 937-951. Available at: https://doi.org/10.1007/s11187-017-9853-y	
COUNTRY	Spain	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Firm survival	

NON-SURVIVORS INCLUDED?	Yes, firm survival is the main outcome variable.
DATA SOURCES	Administrative data: Data were obtained from the Continuous Sample of Working Lives (CSWL, Muestra Continua de Vidas Laborales), an administrative dataset maintained by the Spanish Ministry of Employment and Social Security. 2 927 newly established youth self-employed in 2013 (about 50 000 treated individuals in 2013 in total) and a control group of 6 664 non-supported individuals (other newly established self-employed individuals in 2013).
STEP LEVEL	6
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level survival effects in t+1
EVALUATION QUALITY SCORE	5
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias.
KEY FINDINGS	The authors find no statistically significant effect on firm survival.
PROGRAMME EXPENDITURE	N/A
MACRO IMPACT	The programme has significantly contributed to the increase of youth self-employment, as documented by the increase in rates of newly-established self-employed individuals. Nevertheless, this increase was followed by an increase in business closure rates.
POLICY IMPACT OF THE EVALUATION	The authors have presented results to the government and published a newspaper article about the results of the evaluation. However, they are not aware of any specific impact of the evaluation.

Table B.44. Is starting a business a sustainable way out of unemployment? Treatment effects of the Swedish start-up subsidy

TABLE REFERENCE	B44	
PROGRAMME NAME	The Swedish Start-up Grants programme (SEP Programme)	
DATES	Years when the programme was operating: 1984 (nowadays) Evaluation period: 2003-2007 Year of the report: 2016 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to activate unemployed individuals through public support (in the form of a non-repayable grant) and encourage them to become self-employed.
	Yes	Reduction of unemployment, increase in start-ups
EVALUATION THEME	Inclusive entrepreneurship; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Unemployed individuals	
SOURCE OF EVIDENCE	Academic article: (Behrenz, Delander and Månsson, 2016[45]). Is starting a business a sustainable way out of unemployment? Treatment effects of the Swedish start-up subsidy. *Journal of Labor Research*, 37(4), 389-411. Available at:https://doi.org/10.1007/s12122-016-9233-4	
COUNTRY	Sweden	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Probability of leaving unemployment	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Administrative data: Data were obtained from the Swedish Social Insurance Agency. 15 106 entrepreneurs supportedin 2003 in Sweden and a control group of 466 691 unemployed individuals who were not supported by any instrument of active labour market policy (non-applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Propensity score matching (PSM) with a difference-in-differences approach The authors estimate effects in t+3 and in t+5	
EVALUATION QUALITY SCORE	4	

RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. The authors provide estimates across different levels of education attainment.
KEY FINDINGS	The authors find that participation in the programme has increased the probability of leaving unemployment. The results by educational attainment levels showed the largest effects for low educated unemployed.
PROGRAMME EXPENDITURE	The total programme expenditures were 800 mil. SEK annually from 2003 on and 500 mil. SEK annually from 2007 on (1 EUR = 10.7 SEK).
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The results were presented to representatives of the government (Swedish NAO) and based on the authors' recommendations, the programme received more funding and expanded from 2016.

Regional and Local Focus

Table B.45. Publicly funded prestart support for new firms: who demands it and how it affects their employment growth

TABLE REFERENCE	B45	
PROGRAMME NAME	Pre-start support via a Funded Business Development Centre (PFBDC)	
DATES	Years when the programme was operating: 2002-2005 Evaluation period: 2000-2005 Year of the report: 2011 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to support new business formation in Navarra region. Individuals interested in starting a business could ask for public support for business start-up through a Funded Business Development Centre (PFBDC). Depending on the stage of the business development, they could obtain counselling, training, a place in an incubator or a direct financial subsidy.
	Yes	Increase in start-ups
EVALUATION THEME	Regional and local; Business advice, coaching, mentoring and counselling; Finance	
INTERVENTION TYPE	Hard & Soft	
TARGET GROUPS	New firms in Navarra region	
SOURCE OF EVIDENCE	Academic article: (Capelleras, Contín-Pilart and Larraza-Kintana, 2011[46]). Publicly funded prestart support for new firms: who demands it and how it affects their employment growth. *Environment and Planning C: Government and Policy*, *29*(5), 821-847. Available at:https://doi.org/10.1068/c10110b.	
COUNTRY	Spain	
REGIONAL/LOCAL	One region study, programme focused on new businesses in Navarra region	
PERFORMANCE METRICS	Employment	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Survey and administrative data: Survey data collected in 2001 and 2005 in combination with the data collected from the Government of Navarra. 78 firms supported (100% of population), 114 non-supported firms (non-applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Two-stage Heckman selection model The authors estimate firm-level effects in t+5	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and selection bias. Three different kinds of support are analysed and the separate findings are reported. The authors do not report the total number of supported start-ups by the government.	
KEY FINDINGS	The authors find positive effects on employment growth only in the case of soft business support (i.e. knowledge development support), and not in the case of tangible public support.	
PROGRAMME EXPENDITURE	N/A	
MACRO IMPACT	N/A	

POLICY IMPACT OF THE EVALUATION	The authors have presented the results to the government and to the relevant stakeholders. The outcomes were considered during the establishment of the First Plan for Entrepreneurship in Navarra (I Plan de Emprendimiento de Navarra), which also included entrepreneurship training activities as pointed out by the research study.

Support in Areas of Disadvantage

Table B.46. Public investment subsidies and firm performance – Evidence from Germany

TABLE REFERENCE	B46	
PROGRAMME NAME	Improving regional economic structures (Verbesserung der regionalen Wirtschaftsstruktur - GRW)	
DATES	Years when the programme was operating: 2007-2013 Evaluation period: 2007-2014 Year of the report: 2018 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 Programme aimed to mitigate regional disparities through investment subsidies allocated to firms. All subsidised investment projects had to generate employment in the region where the project was realised.
	Yes	Increase in employment, wealth and competitiveness
EVALUATION THEME	Support in areas of disadvantage; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Firms in East Germany (lagging regions)	
SOURCE OF EVIDENCE	Academic article: (Brachert, Dettmann and Titze, 2018[47]). Public investment subsidies and firm performanceEvidence from Germany. *Jahrbcher fr Nationalkonomie und Statistik*, *238*(2), 103-124. Available at: https://doi.org/10.1515/jbnst-2017-0131	
COUNTRY	Germany	
REGIONAL/LOCAL	One region study, the evaluation focused on manufacturing firms in Saxony-Anhalt region	
PERFORMANCE METRICS	Employment, turnover, gross fixed capital, labour productivity	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Statistical office data and administrative data: Annual surveys provided by the German Research Data Centre within the AFiD database in combination with GRW programme data. 254 firms supported in 2007 in Saxony-Anhalt region (of 1 208 supported in total during 2007-2013), 19 821 non-supported firms from West German regions (no access to funding).	
STEP LEVEL	6	
METHODS	Panel data approach Coarsened exact matching (CEM) in combination with a fixed-effects difference-in-differences (FEDiD) approach The authors estimate firm-level effects from t+1 to t+6	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and industry bias.	
KEY FINDINGS	The authors find positive short- and medium-run effects on firm employment. The effects on firm turnover remain significant and positive only in the medium-run. Gross fixed capital formation responds positively to GRW funding only during the mean implementation period of the projects but becomes insignificant afterwards. Finally, the effect of GRW funding on labour productivity remains insignificant throughout the whole period of analysis.	
PROGRAMME EXPENDITURE	7.422 billion Euro allocated through GRW during 2007-2013 in Germany,1.377 billion Euro allocated to Saxony-Anhalt region.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The results were presented to the government and disseminated to relevant stakeholders in Germany, but also in the European Commission (Directorate-General for Regional and Urban Policy). The authors say that based on their findings, the Federal State of Thuringia has changed the guidelines on the GRW-funding. The policymakers incorporated the recommendation to make a change in policy goal, i.e. to shift from to the goal of job creation to productivity issues in the funding.	

Table B.47. How are growth and productivity in private firms affected by public subsidy? Evidence from a regional policy

TABLE REFERENCE	B47	
PROGRAMME NAME	Regional policy determined by the Law 488/1992 (L.488)	
DATES	Years when the programme was operating: 1996-2007 Evaluation period: 1996-2004 Year of the report: 2011 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to boost private investments in industrial structure development and job creation in less developed regions through the allocation of investment subsidies.
	Yes	Higher competitiveness, increase in employment
EVALUATION THEME	Support in areas of disadvantage; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Manufacturing and extractive firms doing business in lagging regions	
SOURCE OF EVIDENCE	Academic article: (Bernini and Pellegrini, 2011[48]). How are growth and productivity in private firms affected by public subsidy? Evidence from a regional policy. *Regional Science and Urban Economics*, *41*(3), 253-265. Available at: https://doi.org/10.1016/j.regsciurbeco.2011.01.005	
COUNTRY	Italy	
REGIONAL/LOCAL	One country study, the programme focused on manufacturing and extractive firms doing business in lagging regions	
PERFORMANCE METRICS	Employment, sales, fixed assets, value added per labour costs, debt costs, total factor productivity (TFP)	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Administrative and commercial data: Firm-level data from the AIDA database in combination with the programme data. 574 firms supported by subsidies during 1996-1998 (665 firms were supported in total) and 848 non-supported firms (rejected-applicants).	
STEP LEVEL	5	
METHODS	Panel data approach Propensity score matching (PSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects in t+1	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and industry bias. The results are not compared with the additional control group of non-applicants and the analysis lacks data for small firms participating in the programme.	
KEY FINDINGS	The authors find positive effects on sales, value added, employment and fixed assets, but negative effects on total factor productivity.	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through subsidies to the firms during 1996-2007 was 23 bil. EUR.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	The authors did not present the results to the government.	

Table B.48. Do subsidies to private capital boost firms' growth? A multiple regression discontinuity design approach

TABLE REFERENCE	B48	
PROGRAMME NAME	Regional policy determined by the Law 488/1992 (L.488)	
DATES	Years when the programme was operating: 1996-2007 Evaluation period: 1995-2004 Year of the report: 2014 (Published)	
STATED OBJECTIVES	Yes	Objective specification score: 2 The programme aimed to boost private investments in industrial structure development and job creation

Programme goal stated Final objectives available		in less developed regions through the allocation of investment subsidies.
	Yes	Higher competitiveness, increase in employment
EVALUATION THEME	Support for disadvantaged areas; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Manufacturing and extractive firms doing business in lagging regions	
SOURCE OF EVIDENCE	Academic article: (Cerqua and Pellegrini, 2014[49]). Do subsidies to private capital boost firms' growth? A multiple regression discontinuity design approach. *Journal of Public Economics*, *109*, 114-126. Available at: https://doi.org/10.1016/j.jpubeco.2013.11.005	
COUNTRY	Italy	
REGIONAL/LOCAL	One country study, the programme focused on manufacturing and extractive firms doing business in lagging regions. Evaluation focused on southern regions.	
PERFORMANCE METRICS	Employment, sales, fixed assets, value added per labour costs	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Administrative and commercial data: Firm-level data from the AIDA database in combination with programme data from the Ministry of Economic Development. 428 firms supported by subsidies during 1996-1998 in south Italy (1 784 firms were supported in total) and 531 non-supported firms (rejected applicants).	
STEP LEVEL	6	
METHODS	Panel data approach Regression discontinuity design (RDD) The authors estimate firm-level effects from t+1 to t+6	
EVALUATION QUALITY SCORE	4	
RELIABILITY COMMENTS	Analysis tackles the issue of area and industry bias.	
KEY FINDINGS	The evaluation finds positive effects on tangible assets, turnover and employment, but insignificant effects on value added per labour costs (labour productivity).	
PROGRAMME EXPENDITURE	The total amount of public resources allocated through subsidies to the firms during 1996-2007 was 23 bil. EUR.	
MACRO IMPACT	N/A	
POLICY IMPACT OF THE EVALUATION	N/A	

Table B.49. Industrial policy evaluation in the presence of spillovers

TABLE REFERENCE	B49	
PROGRAMME NAME	Regional policy determined by the Law 488/1992 (L.488)	
DATES	Years when the programme was operating: 1996-2007 Evaluation period: 1995-2001 Year of the report: 2017 (Published)	
STATED OBJECTIVES Programme goal stated Final objectives available	Yes	Objective specification score: 2 The programme aimed to boost private investments in industrial structure development and job creation in less developed regions through the allocation of investment subsidies.
	Yes	Higher competitiveness, increase in employment
EVALUATION THEME	Support in areas of disadvantage; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Manufacturing and extractive firms doing business in lagging regions	
SOURCE OF EVIDENCE	Academic article: (Cerqua and Pellegrini, 2017[50]). Industrial policy evaluation in the presence of spillovers. *Small Business Economics*, *49*(3), 671-686. Available at: https://doi.org/10.1007/s11187-017-9855-9	
COUNTRY	Italy	
REGIONAL/LOCAL	One country study	
PERFORMANCE METRICS	Employment, sales, fixed assets, total factor productivity (TFP)	

NON-SURVIVORS INCLUDED?	No
DATA SOURCES	Administrative and commercial data: Firm-level data from database AIDA, in combination with the programme data. 213 firms supported by subsidies during 1996-1998 (665 firms were supported in total), 693 rejected applicant firms and 1 352 non-supported firms (non-applicants).
STEP LEVEL	6
METHODS	Panel data approach Coarsened exact matching (CSM) in combination with a difference-in-differences (DiD) approach The authors estimate firm-level effects from t+1 to t+3
EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	Analysis tackles the issue of area and industry bias. The authors also report results for firms located around the treated firms to observe possible spillover effects.
KEY FINDINGS	The authors find positive effects on fixed assets, sales and employment and negative effects on TFP.
PROGRAMME EXPENDITURE	The total amount of public resources allocated through subsidies to the firms during 1996-2007 was 23 bil. EUR.
MACRO IMPACT	N/A
POLICY IMPACT OF THE EVALUATION	The authors have not presented results to the government, because the policy under analysis was phased out from 2007 onwards.

Table B.50. Some causal effects of an industrial policy

TABLE REFERENCE	B50	
PROGRAMME NAME	Regional Selective Assistance (RSA) Programme	
DATES	Years when the programme was operating: 1972-ongoing Evaluation period: 1997-2004 Year of the report: 2019 (Published)	
STATED OBJECTIVES Programme goal stated	Yes	Objective specification score: 2 Programme aimed to increase employment through investment subsidies (i.e. grants for industrial development) allocated to firms doing business in manufacturing located in lagging regions.
Final objectives available	Yes	Increase in employment, increase in competitiveness
EVALUATION THEME	Support in areas of disadvantage; Finance	
INTERVENTION TYPE	Hard	
TARGET GROUPS	Manufacturing firms located in lagging regions	
SOURCE OF EVIDENCE	Academic article: (Criscuolo et al., 2019[51]). Some causal effects of an industrial policy. *American Economic Review*, *109*(1), 48-85. Available at: https://doi.org/10.1257/aer.20160034	
COUNTRY	United Kingdom	
REGIONAL/LOCAL	One country study, the programme focused on manufacturing firms in lagging regions	
PERFORMANCE METRICS	Employment, investments, value-added per employee, total factor productivity (TFP)	
NON-SURVIVORS INCLUDED?	No	
DATA SOURCES	Administrative data: Data were provided by the UK Census Bureau (Office of National Statistics), Selective Assistance Management Information System (SAMIS) database, the Interdepartmental Business Register (IDBR), and the Annual Respondents Database (ARD). 4 550 firms supported during 1997-2000 (82% of all RSA recipients), 39 308 non-supported firms (non-applicants).	
STEP LEVEL	6	
METHODS	Panel data approach	

	Instrumental variables (IV) approach The authors estimate firm-level effects in t+3
EVALUATION QUALITY SCORE	4
RELIABILITY COMMENTS	Analysis tackles the issue of area and industry bias. Effects across firm size are reported.
KEY FINDINGS	The authors find positive effects of the programme on employment and investments, but no effects on total factor productivity (TFP). They also found heterogeneous effects across firm sizes. Statistically significant effects are reported for small firms, but smaller or no effects for large firms.
PROGRAMME EXPENDITURE	164 mil. GBP allocated through RSA during 1997-2004.
MACRO IMPACT	The authors report the overall increased employment in lagging regions and reduction of unemployment.
POLICY IMPACT OF THE EVALUATION	The authors have presented results to UK and European Union (EU) policymakers. The findings of this study have influenced the governance of state aid investments at the EU for large firms. The authors refer to the following two documents: (European Commission, 2014[52]). *Common methodology for state aid evaluation*. Brussels. Available at: http://ec.europa.eu/competition/state_aid/modernisation/state_aid_evaluation_methodology_en.pdf (European Commission, 2019[53]). *Explanatory note on the paper of the services of DG Competition containing draft regional aid guidelines 2014-2020*. [online] Available at: http://ec.europa.eu/competition/consultations/2013_regional_aid_guidelines/explanatory_note_en.pdf

Annex C. Examples of other relevant evaluation studies not included in the report

Country	Topic	Year of the Report	Source of Evidence
Belgium	Export promotion scheme	2017	Academic article: (Broocks and Van Biesebroeck, 2017[54]). The impact of export promotion on export market entry. *Journal of International Economics*, *107*, 19-33. Available at: https://doi.org/10.1016/j.jinteco.2017.03.009
Czech Republic	Business training	2019	Academic article: (Pelucha, Kveton and Potluka, 2019[55]). Using mixed method approach in measuring effects of training in firms: Case study of the European Social Fund support. *Evaluation and program planning*, *73*, 146-155. Available at: https://doi.org/10.1016/j.evalprogplan.2018.12.008
Czech Republic	Investment subsidies	2019	Academic article: (Dvouletý and Blažková, 2019[56]). The Impact of Public Grants on Firm-Level Productivity: Findings from the Czech Food Industry. *Sustainability*, 11(2), 552. Available at: https://doi.org/10.3390/su11020552
Czech Republic	Business incubators, support of innovative ventures	2018	Academic article: (Dvouletý et al., 2018[57]). Are publicly funded Czech incubators effective? The comparison of performance of supported and non-supported firms. *European Journal of Innovation Management*, *21*(4), 543-563. Available at: https://doi.org/10.1108/EJIM-02-2018-0043
Finland	Innovation grants, R&D grants	2014	Academic article: (Einiö, 2014[58]). R&D subsidies and company performance: Evidence from geographic variation in government funding based on the ERDF population-density rule. *Review of Economics and Statistics*, *96*(4), 710-728. Available at: https://doi.org/10.1162/REST_a_00410
Finland	Investment subsidies	2013	Academic article: (Koski and Pajarinen, 2013[59]). The role of business subsidies in job creation of start-ups, gazelles and incumbents. *Small Business Economics*, *41*(1), 195-214. Available at: https://doi.org/10.1007/s11187-012-9420-5
Germany	Finance, start-up subsidy	2016	Academic article: (Caliendo, Künn and Weißenberger, 2016[60]). Personality traits and the evaluation of start-up subsidies. *European Economic Review*, *86*, 87-108. Available at: https://doi.org/10.1016/j.euroecorev.2015.11.008
Germany	Finance, start-up subsidy	2018	Academic article: (Bellmann, Caliendo and Tübbicke, 2018[61]). The Post-Reform Effectiveness of the New German Start-Up Subsidy for the Unemployed. *Labour*, *32*(3), 293-319. Available at: https://doi.org/10.1111/labr.12126
Germany	Finance, start-up subsidy	2019	Working paper: (Caliendo, Künn and Weissenberger, 2020[62]). Catching up or Lagging Behind?. *IZA Discussion Papers*, No. 12690. Available at: https://doi.org/10.25932/publishup-43701
Germany	Regional development programme, investment subsidies	2019	Academic article: (Brachert, Dettmann and Titze, 2019[63]). The regional effects of a place-based policy–Causal evidence from Germany. *Regional Science and Urban Economics*, *79*, 103483. Available at: https://doi.org/10.1016/j.regsciurbeco.2019.103483
Chile	Finance, investment tax credit	2010	Master thesis (academic): (Marshall, 2010[64]). *Is the Tax Credit for SME in Chile an Effective Policy to Boost Investment?* (No. 46). Center for International Development at Harvard University. Available at: https://ideas.repec.org/p/cid/wpfacu/46.html

Chile	Soft business support, counselling, advisory services	2019	Working paper: (Johan and Valenzuela, 2021[65]). *Business Advisory Services and Female Employment in an Extreme Institutional Context*. Available at: http://dx.doi.org/10.2139/ssrn.3484474
Italy	Regional development programme, investment subsidies	2017	Academic article: (Pellegrini and Muccigrosso, 2017[66]). Do subsidized new firms survive longer? Evidence from a counterfactual approach. Regional Studies, 51(10), 1483-1493. Available at: https://doi.org/10.1080/00343404.2016.1190814
Italy	Business incubators, support of innovative ventures	2019	Academic article: (Lukeš, Longo and Zouhar, 2019[67]). Do business incubators really enhance entrepreneurial growth? Evidence from a large sample of innovative Italian start-ups. *Technovation*, *82*, 25-34. Available at: https://doi.org/10.1016/j.technovation.2018.07.008
Italy	Export promotion scheme	2020	Academic article: (Comi and Resmini, 2020[68]). Are export promotion programs effective in promoting the internalization of SMEs?. *Economia Politica* Available at: https://doi.org/10.1007/s40888-019-00170-8
Korea	Innovation grants, R&D grants	2015	Academic article: (Kim, Oh and Lee, 2015[69]). Economic Impact Assessment of Public–Private Matching Fund Programs Using Firm-Level Data. *The Singapore Economic Review*, *60*(04), 1550060. Available at: https://doi.org/10.1142/S0217590815500605
Latvia	Investment subsidies	2018	Working paper: (Beņkovskis, Tkačevs and Yashiro, 2019[70]). Importance of EU Regional Support Programmes for Firm Performance. (No. 2017/8). *Latvijas Banka Working Paper* (No. 1/2018). Available at: https://www.macroeconomics.lv/sites/default/files/2018-02/wp_1_2018_en.pdf
Portugal	Innovation grants, R&D grants	2019	Academic article: (Santos et al., 2019[71]). Which projects are selected for an innovation subsidy? The Portuguese case. *Portuguese Economic Journal*, (forthcoming). Available at: https://doi.org/10.1007/s10258-019-00159-y
Slovakia	Innovation grants, R&D grants	2019	Academic article: (Nemethova, Siranova and Sipikal, 2019[72]). Public support for firms in lagging regions—evaluation of innovation subsidy in Slovakia. *Science and Public Policy*, *46*(2), 173-183. Available at: https://doi.org/10.1093/scipol/scy046
Slovenia	Investment subsidies, anti-crisis subsidies	2012	Working paper: (Schweiger, 2012[73]). *The impact of state aid for restructuring on the allocation of resources*. European Bank for Reconstruction and Development. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.233.2068&rep=rep1&type=pdf
Spain	Finance, credit guarantee scheme	2021	Academic article: (Martín-García and Morán Santor, 2021[74]). Public guarantees: a countercyclical instrument for SME growth. Evidence from the Spanish Region of Madrid. *Small Business Economics*, (forthcoming). Available at: https://doi.org/10.1007/s11187-019-00214-0
United Kingdom	Finance, credit guarantee scheme	2018	Academic article: (Cowling, Ughetto and Lee, 2018[75]). The innovation debt penalty: Cost of debt, loan default, and the effects of a public loan guarantee on high-tech firms. *Technological Forecasting and Social Change*, *127*, 166-176. Available at: https://doi.org/10.1016/j.techfore.2017.06.016
United States	Enterprise zones	2019	Academic article: (Zhang, 2019[76]). Rethinking US enterprise zones: The role of research design in program evaluation. *Local Economy,* (forthcoming). Available at: https://doi.org/10.1177/0269094219871955
United States	Soft business support, counselling, advisory services	2019	Academic article published in conference proceedings: (Buffart et al., 2019[77]). Picking the Right Winners: Government Business Support Programs and Entrepreneurial Growth. In *Academy of Management Proceedings* (Vol. 2019, No. 1, p. 10868). Briarcliff Manor, NY 10510: Academy of Management. Available at: https://journals.aom.org/doi/abs/10.5465/AMBPP.2019.10868abstract
United States	Business incubators, support of innovative ventures	2013	Academic article: (Amezcua et al., 2013[78]). Organizational sponsorship and founding environments: a contingency view on the survival of business-incubated firms, 1994–2007. *Academy of Management Journal*, *56*(6), 1628-1654. Available at: https://doi.org/10.5465/amj.2011.0652

Annex D. Brief description of included evaluation methods

Evaluation Method	Description	Reference and further reading
Randomized controlled trial (RCT)	"With this methodological approach, beneficiaries are randomly selected to receive an intervention, and each has an equal chance of receiving the support. With large-enough sample sizes, the process of random assignment ensures equivalence, in both observed and unobserved characteristics, between the treatment and control groups, thereby addressing selection bias."	(Gertler et al., 2016[79]) (p. 233; further pp. 49-81)
Simple difference-in-differences (DiD) approach	"Difference-in-differences estimates the counterfactual for the change in outcome for the treatment group by taking the change in outcome for the comparison group. This method allows us to take into account any differences between the treatment and comparison groups that are constant over time. The two differences are thus before and after, and between the treatment and comparison groups. It is also known as 'double difference' or 'DD'."	(Gertler et al., 2016[79]) (p. 230; further details on pp. 95-106)
Multivariate regression models	"Regression analysis includes any techniques for modelling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. In impact evaluation, regression analysis helps us understand how the typical value of the outcome indicator (dependent variable) changes when the assignment to treatment or comparison group (independent variable) is varied, while the characteristics of the beneficiaries (other independent variables) are held fixed." Preferably we estimate effects over time, benefiting from longitudinal research design. The following types of regression analyses occur in the handbook: Ordinary Least Squares (OLS) regressions, Random effects regressions, Fixed effects regressions, Quantile regressions, Generalized Method of Moments (GMM) regressions.	(Gertler et al., 2016[79]) (p. 234) See (Cameron and Trivedi, 2005[80]) for details on different types of regression techniques.
Two-stage Heckman selection model	"A statistical technique used to correct bias from non-randomly selected samples in a two-step approach. The approach begins by estimating a so-called selection equation that estimates the individual probability of each observation to be supported by the intervention. Then, taking into account the factors included in the selection equation is estimated a second equation explaining the change in the outcome variables."	(Storey, 2017[81]), (Heckman, 1976[82])
Statistical matching techniques	"Statistical matching is a nonexperimental evaluation method that uses large data sets and heavy statistical techniques to construct the best possible comparison group for a given treatment group." The matching is conducted based on the observable (available) characteristics of treatment and comparison (control) groups. The following types of matching techniques occur in the handbook: Propensity score matching (PSM), Radius matching (RM), Direct Covariate Matching (DCM), Nearest Neighbour Matching (NNM), Coarsened exact matching (CEM).	(Gertler et al., 2016[79]) (p. 232; further details on pp. 107-116) See (Khandker, Koolwal and Samad, 2010[1]), (Stuart, 2010[83]) or (Rässler, 2012[84]) for details on different types of matching techniques
Instrumental variables (IV) approach	"An instrumental variable approach involves finding a variable (or instrument) that is highly correlated with program placement or participation but that is not correlated with unobserved characteristics affecting outcomes. Instruments can be constructed from program design (for example, if the program of interest was randomized or if exogenous rules were used in determining eligibility for the program)."	(Khandker, Koolwal and Samad, 2010[1]) (p. 87)
Regression discontinuity design (RDD)	"Regression discontinuity design is a nonexperimental evaluation method that adequate for programs that use a continuous index to rank potential beneficiaries and that have a threshold along the index that determines whether potential beneficiaries receive the public support or not. The cutoff threshold for program eligibility provides a dividing point between the treatment and comparison groups" allowing the impact of an intervention to be quantified.	(Gertler et al., 2016[79]) (p. 234; further details on pp. 81-93)

Note: Some of the methods are often combined (e. g. multivariate regression analysis or matching techniques with difference-in-differences approach).

References

Amezcua, A. (2010), *Boon or Boondoggle? Business Incubation as Entrepreneurship Policy*, Syracuse University ProQuest Dissertations Publishing. [32]

Amezcua, A. et al. (2013), "Organizational sponsorship and founding environments: A contingency view on the survival of business-incubated firms, 1994-2007", *Academy of Management Journal*, Vol. 56/6, https://doi.org/10.5465/amj.2011.0652. [78]

Anyadike-Danes, M. and M. Hart (2018), "All grown up? The fate after 15 years of a quarter of a million UK firms born in 1998", *Journal of Evolutionary Economics*, Vol. 28/1, https://doi.org/10.1007/s00191-017-0549-x. [87]

Arráiz, I., F. Henríquez and R. Stucchi (2013), "Supplier development programs and firm performance: Evidence from Chile", *Small Business Economics*, Vol. 41/1, https://doi.org/10.1007/s11187-012-9428-x. [18]

Arvanitis, S., L. Donzé and N. Sydow (2010), "Impact of Swiss technology policy on firm innovation performance: An evaluation based on a matching approach", *Science and Public Policy*, Vol. 37/1, https://doi.org/10.3152/030234210X491623. [30]

Autio, E. and H. Rannikko (2016), "Retaining winners: Can policy boost high-growth entrepreneurship?", *Research Policy*, Vol. 45/1, https://doi.org/10.1016/j.respol.2015.06.002. [25]

Banai, Á. et al. (2017), "Impact evaluation of EU subsidies for economic development on the Hungarian SME sector.", *MNB Working Papers* 8. [8]

Behrenz, L., L. Delander and J. Månsson (2016), "Is Starting a Business a Sustainable way out of Unemployment? Treatment Effects of the Swedish Start-up Subsidy", *Journal of Labor Research*, Vol. 37/4, https://doi.org/10.1007/s12122-016-9233-4. [45]

Bellmann, L., M. Caliendo and S. Tübbicke (2018), "The Post-Reform Effectiveness of the New German Start-Up Subsidy for the Unemployed", *Labour*, Vol. 32/3, https://doi.org/10.1111/labr.12126. [61]

Beņkovskis, K., O. Tkačevs and N. Yashiro (2019), "Importance of EU regional support programmes for firm performance", *Economic Policy*, Vol. 34/98, https://doi.org/10.1093/epolic/eiz003. [70]

Bernini, C. and G. Pellegrini (2011), "How are growth and productivity in private firms affected by public subsidy? Evidence from a regional policy", *Regional Science and Urban Economics*, Vol. 41/3, https://doi.org/10.1016/j.regsciurbeco.2011.01.005. [48]

Bertoni, F., J. Martí and C. Reverte (2019), "The impact of government-supported participative loans on the growth of entrepreneurial ventures", *Research Policy*, Vol. 48/1, https://doi.org/10.1016/j.respol.2018.09.006. [28]

Brachert, M., E. Dettmann and M. Titze (2019), "The regional effects of a place-based policy – Causal evidence from Germany", *Regional Science and Urban Economics*, Vol. 79, https://doi.org/10.1016/j.regsciurbeco.2019.103483. [63]

Brachert, M., E. Dettmann and M. Titze (2018), *Public Investment Subsidies and Firm Performance-Evidence from Germany*, https://doi.org/10.1515/jbnst-2017-0131. [47]

Broocks, A. and J. Van Biesebroeck (2017), "The impact of export promotion on export market entry", *Journal of International Economics*, Vol. 107, https://doi.org/10.1016/j.jinteco.2017.03.009. [54]

Brown, J. and J. Earle (2017), "Finance and Growth at the Firm Level: Evidence from SBA Loans", *Journal of Finance*, Vol. 72/3, https://doi.org/10.1111/jofi.12492. [16]

Bruhn, M., D. Karlan and A. Schoar (2018), "The impact of consulting services on small and medium enterprises: Evidence from a randomized trial in Mexico", *Journal of Political Economy*, Vol. 126/2, https://doi.org/10.1086/696154. [21]

Bruhn, M. and D. McKenzie (2019), "Can Grants to Consortia Spur Innovation and Science-Industry Collaboration? Regression-Discontinuity Evidence from Poland", *World Bank Economic Review*, Vol. 33/3, https://doi.org/10.1093/wber/lhx014. [26]

Buffart, M. et al. (2019), "Picking the Right Winners: Government Business Support Programs and Entrepreneurial Growth", *Academy of Management Proceedings*, Vol. 2019/1, https://doi.org/10.5465/ambpp.2019.10868abstract. [77]

Burger, A. and M. Rojec (2018), "Impotence of Crisis-Motivated Subsidization of Firms: The Case of Slovenia", *Eastern European Economics*, Vol. 56/2, https://doi.org/10.1080/00128775.2017.1416294. [14]

Caliendo, M., S. Künn and M. Weissenberger (2020), "Catching up or lagging behind? The long-term business and innovation potential of subsidized start-ups out of unemployment", *Research Policy*, Vol. 49/10, https://doi.org/10.1016/j.respol.2020.104053. [62]

Caliendo, M., S. Künn and M. Weißenberger (2016), "Personality traits and the evaluation of start-up subsidies", *European Economic Review*, Vol. 86, https://doi.org/10.1016/j.euroecorev.2015.11.008. [60]

Caliendo, M. and S. Tübbicke (2020), "New evidence on long-term effects of start-up subsidies: matching estimates and their robustness", *Empirical Economics*, Vol. 59/4, https://doi.org/10.1007/s00181-019-01701-9. [41]

Cameron, A. and P. Trivedi (2005), *Microeconometrics: methods and applications. Cambridge university press.*. [80]

Capelleras, J., I. Contín-Pilart and M. Larraza-Kintana (2011), "Publicly funded prestart support for new firms: Who demands it and how it affects their employment growth", *Environment and Planning C: Government and Policy*, Vol. 29/5, https://doi.org/10.1068/c10110b. [46]

Caselli, S. et al. (2019), "Public Credit Guarantee Schemes and SMEs' Profitability: Evidence from Italy", *Journal of Small Business Management*, Vol. 57/S2, https://doi.org/10.1111/jsbm.12509. [9]

Cerqua, A. and G. Pellegrini (2017), "Industrial policy evaluation in the presence of spillovers", *Small Business Economics*, Vol. 49/3, https://doi.org/10.1007/s11187-017-9855-9. [50]

Cerqua, A. and G. Pellegrini (2014), "Do subsidies to private capital boost firms' growth? A multiple regression discontinuity design approach", *Journal of Public Economics*, Vol. 109, https://doi.org/10.1016/j.jpubeco.2013.11.005. [49]

Chandler, V. (2012), "The economic impact of the Canada small business financing program", *Small Business Economics*, Vol. 39/1, https://doi.org/10.1007/s11187-010-9302-7. [4]

Comi, S. and L. Resmini (2020), "Are export promotion programs effective in promoting the internalization of SMEs?", *Economia Politica*, Vol. 37/2, https://doi.org/10.1007/s40888-019-00170-8. [68]

Cowling, M. et al. (2018), "Loan guarantee schemes in the UK: the natural experiment of the enterprise finance guarantee and the 5 year rule", *Applied Economics*, Vol. 50/20, https://doi.org/10.1080/00036846.2017.1392004. [15]

Cowling, M., E. Ughetto and N. Lee (2018), "The innovation debt penalty: Cost of debt, loan default, and the effects of a public loan guarantee on high-tech firms", *Technological Forecasting and Social Change*, Vol. 127, https://doi.org/10.1016/j.techfore.2017.06.016. [75]

Criscuolo, C. et al. (2019), "Some causal effects of an industrial policy", *American Economic Review*, Vol. 109/1, https://doi.org/10.1257/aer.20160034. [51]

Cueto, B., M. Mayor and P. Suárez (2017), "Evaluation of the Spanish flat rate for young self-employed workers", *Small Business Economics*, Vol. 49/4, https://doi.org/10.1007/s11187-017-9853-y. [44]

Cumming, D. and E. Fischer (2012), "Publicly funded business advisory services and entrepreneurial outcomes", *Research Policy*, Vol. 41/2, https://doi.org/10.1016/j.respol.2011.09.004. [17]

Decramer, S. and S. Vanormelingen (2016), "The effectiveness of investment subsidies: evidence from a regression discontinuity design", *Small Business Economics*, Vol. 47/4, https://doi.org/10.1007/s11187-016-9749-2. [3]

Duhautois, R., D. Redor and L. Desiage (2015), *Long term effect of public subsidies on start-up survival and economic performance: An empirical study with french data*, https://doi.org/10.4000/rei.6063. [39]

Dvouletý, O. and I. Blažková (2019), "Assessing the microeconomic effects of public subsidies on the performance of firms in the czech food processing industry: A counterfactual impact evaluation", *Agribusiness*, Vol. 35/3, https://doi.org/10.1002/agr.21582. [5]

Dvouletý, O. and I. Blažková (2019), "The impact of public grants on firm-level productivity: Findings from the Czech food industry", *Sustainability (Switzerland)*, Vol. 11/2, https://doi.org/10.3390/su11020552. [56]

Dvouletý, O., J. Čadil and K. Mirošník (2019), "Do Firms Supported by Credit Guarantee Schemes Report Better Financial Results 2 Years After the End of Intervention?", *B.E. Journal of Economic Analysis and Policy*, Vol. 19/1, https://doi.org/10.1515/bejeap-2018-0057. [6]

Dvouletý, O. et al. (2018), "Are publicly funded Czech incubators effective? The comparison of performance of supported and non-supported firms", *European Journal of Innovation Management*, Vol. 21/4, https://doi.org/10.1108/EJIM-02-2018-0043. [57]

Einiö, E. (2014), "R&D subsidies and company performance: Evidence from geographic variation in government funding based on the ERDF population-density rule", *Review of Economics and Statistics*, Vol. 96/4, https://doi.org/10.1162/REST_a_00410. [58]

European Commission (2019), *Explanatory note on the paper of the services of DG Competition containing draft regional aid guidelines 2014-2020*. [53]

European Commission (2014), *Common methodology for state aid evaluation*. [52]

Fairlie, R., D. Karlan and J. Zinman (2015), "Behind the GATE experiment: Evidence on effects of and rationales for subsidized entrepreneurship training", *American Economic Journal: Economic Policy*, Vol. 7/2, https://doi.org/10.1257/pol.20120337. [37]

Georgiadis, A. and C. Pitelis (2016), "The Impact of Employees' and Managers' Training on the Performance of Small- and Medium-Sized Enterprises: Evidence from a Randomized Natural Experiment in the UK Service Sector", *British Journal of Industrial Relations*, Vol. 54/2, https://doi.org/10.1111/bjir.12094. [36]

Gertler, P. et al. (2016), *Impact Evaluation in Practice, Second Edition*, https://doi.org/10.1596/978-1-4648-0779-4. [79]

Girma, S. et al. (2010), "The effect of grant receipt on start-up size: Evidence from plant level data", *Journal of International Entrepreneurship*, Vol. 8/4, https://doi.org/10.1007/s10843-010-0061-y. [23]

Hartšenko, J. and A. Sauga (2013), "The role of financial support in SME and economic development in Estonia", *Business and Economic Horizons*, Vol. 9/2, https://doi.org/10.15208/beh.2013.6. [7]

Heckman, J. (1976), "The Common Structure of Statistical Models of Truncation, Sample Selection and Limited Dependent Variables and a Simple Estimator for Such Models", *National Bureau of Economic Research*. [82]

Hoffmann, A. and D. Storey (2017), "Can Governments Promote Gazelles? Evidence from Denmark", in *The SAGE Handbook of Small Business and Entrepreneurship*, https://doi.org/10.4135/9781473984080.n19. [85]

Johan, S. and P. Valenzuela (2021), "Business Advisory Services and Female Employment in an Extreme Institutional Context", *British Journal of Management*, Vol. 32/4, https://doi.org/10.1111/1467-8551.12429. [65]

Khandker, S., G. Koolwal and H. Samad (2010), *Handbook on Impact Evaluation: Quantitative Methods and Practices*. [1]

Kim, Y., I. Oh and J. Lee (2015), "Economic impact assessment of public-private matching fund programs using firm-level data", *Singapore Economic Review*, Vol. 60/4, https://doi.org/10.1142/S0217590815500605. [69]

Koski, H. and M. Pajarinen (2013), "The role of business subsidies in job creation of start-ups, gazelles and incumbents", *Small Business Economics*, Vol. 41/1, https://doi.org/10.1007/s11187-012-9420-5. [59]

Lopez-Acevedo, G. and M. Tinajero (2010), "Mexico impact evaluation of SME programs using panel firm data", *World Bank Policy Research Working Paper Series*. [13]

Lukeš, M., M. Longo and J. Zouhar (2019), "Do business incubators really enhance entrepreneurial growth? Evidence from a large sample of innovative Italian start-ups", *Technovation*, Vol. 82-83, https://doi.org/10.1016/j.technovation.2018.07.008. [67]

Mariani, M. et al. (2019), "The ambiguous effects of public assistance to youth and female start-ups between job creation and entrepreneurship enhancement", *Scienze Regionali*, Vol. 18/2, https://doi.org/10.14650/93649. [43]

Marshall, C. (2010), "Is the Tax Credit for SME in Chile an Effective Policy to Boost Investment", *CID Research Fellow and Graduate Student Working Paper Series*. [64]

Martínez, A., E. Puentes and J. Ruiz-Tagle (2018), "The effects of micro-entrepreneurship programs on labor market performance: Experimental evidence from Chile", *American Economic Journal: Applied Economics*, Vol. 10/2, https://doi.org/10.1257/app.20150245. [38]

Martín-García, R. and J. Morán Santor (2021), "Public guarantees: a countercyclical instrument for SME growth. Evidence from the Spanish Region of Madrid", *Small Business Economics*, Vol. 56/1, https://doi.org/10.1007/s11187-019-00214-0. [74]

Mole, K. et al. (2011), "Broader or deeper? exploring the most effective intervention profile for public small business support", *Environment and Planning A*, Vol. 43/1, https://doi.org/10.1068/a43268. [22]

Nagel, H. et al. (2019), "The effect of a tax training program on tax compliance and business outcomes of starting entrepreneurs: Evidence from a field experiment", *Journal of Business Venturing*, Vol. 34/2, https://doi.org/10.1016/j.jbusvent.2018.10.006. [35]

Namiotko, V. et al. (2019), "The impact of investment support on labour productivity in Lithuanian family farms: A propensity score matching approach", *Economics and Sociology*, Vol. 12/1, https://doi.org/10.14254/2071-789X.2019/12-1/21. [12]

Navarro, L. (2018), "Entrepreneurship policy and firm performance Chile's CORFO seed capital program", *Estudios de Economia*, Vol. 45/2, https://doi.org/10.4067/S0718-52862018000200301. [24]

Nemethova, V., M. Siranova and M. Sipikal (2019), "Public support for firms in lagging regions-evaluation of innovation subsidy in Slovakia", *Science and Public Policy*, Vol. 46/2, https://doi.org/10.1093/scipol/scy046. [72]

Oberschachtsiek, D. (2015), "The outcome of coaching and training for self-employment. A statistical evaluation of outside assistance support programs for unemployed business founders in Germany", *Journal for Labour Market Research*, Vol. 48/1, https://doi.org/10.1007/s12651-014-0161-6. [42]

Oh, I. et al. (2009), "Evaluation of credit guarantee policy using propensity score matching", *Small Business Economics*, Vol. 33/3, https://doi.org/10.1007/s11187-008-9102-5. [11]

Ono, A., I. Uesugi and Y. Yasuda (2013), "Are lending relationships beneficial or harmful for public credit guarantees? Evidence from Japan's Emergency Credit Guarantee Program", *Journal of Financial Stability*, Vol. 9/2, https://doi.org/10.1016/j.jfs.2013.01.005. [10]

Oosterbeek, H., M. van Praag and A. Ijsselstein (2010), "The impact of entrepreneurship education on entrepreneurship skills and motivation", *European Economic Review*, Vol. 54/3, https://doi.org/10.1016/j.euroecorev.2009.08.002. [34]

Pellegrini, G. and T. Muccigrosso (2017), "Do subsidized new firms survive longer? Evidence from a counterfactual approach", *Regional Studies*, Vol. 51/10, https://doi.org/10.1080/00343404.2016.1190814. [66]

Pelucha, M., V. Kveton and O. Potluka (2019), "Using mixed method approach in measuring effects of training in firms: Case study of the European Social Fund support", *Evaluation and Program Planning*, Vol. 73, https://doi.org/10.1016/j.evalprogplan.2018.12.008. [55]

Potluka, O. et al. (2016), "Counterfactual impact evaluation on EU cohesion policy interventions in training in companies", *Ekonomicky casopis*, Vol. 64/6. [33]

Rässler, S. (2012), *Statistical Matching: A Frequentist Theory, Practical Applications, and Alternative Bayesian Approaches*. [84]

Rässler, S. (2002), *Statistical matching: A frequentist theory, practical applications, and alternative Bayesian approaches*. [86]

Rotger, G., M. Gørtz and D. Storey (2012), "Assessing the effectiveness of guided preparation for new venture creation and performance: Theory and practice", *Journal of Business Venturing*, Vol. 27/4, https://doi.org/10.1016/j.jbusvent.2012.01.003. [19]

Santos, A. (2019), "Do selected firms show higher performance? The case of Portugal's innovation subsidy", *Structural Change and Economic Dynamics*, Vol. 50, https://doi.org/10.1016/j.strueco.2019.04.003. [27]

Santos, A. et al. (2019), "Which projects are selected for an innovation subsidy? The Portuguese case", *Portuguese Economic Journal*, Vol. 18/3, https://doi.org/10.1007/s10258-019-00159-y. [71]

Schweiger, H. (2012), "The Impact of State Aid for Restructuring on the Allocation of Resources", *SSRN Electronic Journal*, https://doi.org/10.2139/ssrn.2180457. [73]

Sedláček, P. and V. Sterk (2017), "The growth potential of startups over the business cycle", *American Economic Review*, Vol. 107/10, https://doi.org/10.1257/aer.20141280. [88]

Söderblom, A. et al. (2015), "Inside the black box of outcome additionality: Effects of early-stage government subsidies on resource accumulation and new venture performance", *Research Policy*, Vol. 44/8, https://doi.org/10.1016/j.respol.2015.05.009. [29]

Storey, D. (2017), "Six Steps to Heaven: Evaluating the Impact of Public Policies to Support Small Businesses in Developed Economies", in Sexton, D. and H. Landström (eds.), *The Blackwell handbook of entrepreneurship*. [81]

Stuart, E. (2010), *Matching methods for causal inference: A review and a look forward*, https://doi.org/10.1214/09-STS313. [83]

Tandogan, V. and M. Pamukcu (2011), "Evaluating effectiveness of public support to business R&D in Turkey through concepts of input and output additionality", *Economic Research Forum Working Paper Series*. [31]

Ungerer, C. et al. (2019), *The Effect of Business Coaching on NTBF Survival-Findings and Lessons Learned from a Randomized Controlled Trial*, https://doi.org/10.1109/ICE.2019.8792604. [20]

Wolff, J., A. Nivorozhkin and S. Bernhard (2016), "You can go your own way! The long-term effectiveness of a self-employment programme for welfare recipients in Germany", *International Journal of Social Welfare*, Vol. 25/2, https://doi.org/10.1111/ijsw.12176. [40]

Xiang, D. and A. Worthington (2017), "The impact of government financial assistance on the performance and financing of Australian SMEs", *Accounting Research Journal*, Vol. 30/4, https://doi.org/10.1108/ARJ-04-2014-0034. [2]

Zhang, S. (2019), "Rethinking U.S. enterprise zones: The role of research design in program evaluation", *Local Economy*, Vol. 34/6, https://doi.org/10.1177/0269094219871955. [76]

Notes

[1] On the grounds that clearly unsuccessful policies are likely to be aborted quickly. However, there are other reasons, possibly unrelated to effectiveness, why programmes are short-lived – most notably changes of government.

[2] (Sedláček and Sterk, 2017[88]) find that 90% of the variation in employment in cohorts of new firms is driven by the economic conditions in the year of firm birth

[3] Two thirds of new firms have closed in five years [(Anyadike-Danes and Hart, 2018[87])]

[4] For example, a programme to encourage the unemployed to begin a business may lead to the closure or reduced profitability of other similar businesses in the surrounding locality. In contrast, programmes to promote innovation are argued to generate positive "spillovers" to others in the locality.

[5] We also took this opportunity to confirm/ modify the information we had derived from their published sources.

OECD Studies on SMEs and Entrepreneurship

Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes 2023

Evaluation is the foundation of evidence-based policy. Yet there is a dearth of reliable impact evaluation in the area of SME and entrepreneurship policy. This publication issues OECD guidance on how governments can promote reliable SME and entrepreneurship policy evaluation. It emphasises practices including using control groups, setting clear policy objectives and targets and accounting for business survival and non-survival. It shows that reliable evaluation of SME and entrepreneurship policy is increasingly accessible given improvements in data and techniques in recent years and illustrates this with examples of 50 reliable evaluations across many SME and entrepreneurship policy areas and 28 OECD countries. Overall, the publication issues a call for more systematic and reliable evaluation of SME and entrepreneurship policies following the guidance offered.

The publication also examines the findings of reliable evaluations internationally, including meta evaluations. The evidence is mixed but generally more robust and consistent for policies to improve access to finance than in the provision of training and advisory services. Some policies have positive impacts on key measures whereas others do not. The reasons are explored, including variations in the targeting of policies and in policy delivery approaches.



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