

# Entrepreneurship incentives: A policy evaluation perspective from Portugal

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## Executive Summary

The Portuguese economy has experienced slow productivity growth over the past decades, indicating that innovative companies struggle to thrive in a supportive economic environment. Financial constraints remain a significant barrier to the creation and growth of new businesses. To address this, European Structural and Investment Funds (ESIF), including the European Regional Development Fund (ERDF), have financed projects aimed at stimulating investment in productive activities. Within the context of entrepreneurial support, the QREN and PT 2020 programs have targeted innovation and entrepreneurship incentives to boost company productivity, employment, and exports. Evaluating the impact of these programs is essential to assess their effectiveness and propose improvements.

## Main research findings

- QREN program did not yield significant robust results. PT 2020 had positive effects in GVA, number of R&D workers and extensive margins of exports.
- Within the scope of PT2020, the refundable incentives had positive robust impacts in GVA and number of R&D workers, while the non-refundable incentives had null impacts in the outcome variables assessed.
- Manufacturing industries started to export more after the funding within the scope of PT2020.
- PT2020 showed a positive significant effect in the information and communication activities sector for exports and R&D personnel and a positive effect in productivity for the consultancy activities sector.

## Key policy alternatives / Recommendations

- Develop strategic planning in how the funds are implemented and monitored.
- Align financial support with areas that demonstrate higher potential for productivity, growth, and innovation activities.
- To improve accountability and effectiveness, grants should be tied to measurable outcomes, such as productivity gains or innovation milestones.

## Proposed recipients of this brief

PLANAPP; GEE; GPEARl; Min. Economy; Min. of Finance; CCDRs; INE; Banco de Portugal; COTEC; Labour Union Federations; CIP, AEP, AIP; ANI, AMA, AICEP.

## Productivity and Entrepreneurship in Portugal

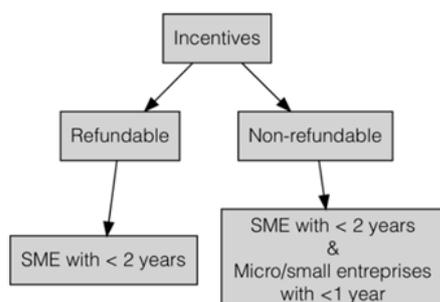
The anemic productivity growth in the Portuguese economy over recent decades suggests that innovative companies still do not benefit from an economic environment conducive to their birth and growth. Productivity growth requires an economic environment that promotes the emergence and growth of innovative companies (Alexandre, 2021a). In this setting, financial constraints stand as one of the primary obstacles to creating new businesses (Queiró et al., 2022). The European Union provides a range of grants to Member States with the objective of promoting economic and regional development.

### Impact of Entrepreneurship Incentives

Within the context of entrepreneurship and support for new companies, there are two incentives systems QREN - Incentives Systems to Innovation (SI Inovação) and PT 2020 - Incentives Systems to Creative and Qualified Entrepreneurship (Sistemas de Incentivo de Empreendedorismo Qualificado e Criativo).

QREN program includes only refundable incentives for SME (small and medium enterprises) with less than 2 years. While PT 2020, in addition to refundable incentives, included non-refundable incentives, such as the entrepreneurship vouchers and expands the target of these funds to include micro and small enterprises with less than one year. Thus, the main difference between the entrepreneurship measures under QREN and those of Portugal 2020 lies in the introduction of non-reimbursable incentives in Portugal 2020. Further, while QREN emphasized youth and female entrepreneurship, PT 2020 adopts a broader approach, focusing on innovation-driven entrepreneurship.

Figure 1. Types of Incentives in PT 2020



Among these, the European Structural and Investment Funds (ESIF) finance projects with the aim of stimulating investments in revenue-generating activities. Specifically, the European Regional Development Fund (ERDF) aims to invest in companies to transform their production profile and improve their international competitiveness (Kołodziejski, 2023). It is crucial to evaluate these funds to assess their efficacy and further discover improvements in the design of the funds.

Overall, these incentives aim to increase employment, productivity, exports, innovation and increase enterprise initiatives. Considering quasi-experimental statistical methods, the study assessed the impact of these incentives on the following outcomes:

- Gross-Value Added (GVA), expressed in euros at 2022 market prices.
- Productivity (GVA/number of workers).
- Exports, measured through intensive margins (considering the exports, in euros at 2022 market prices for only the enterprises that already exported) and extensive margins (assess how many companies started exporting after the funding).
- Personnel allocated to R&D.
- Employment, i.e., number of workers.

Quasi-experimental statistical methods consider a control group of enterprises similar to the ones subject to the policy. This allows to assess the impact of the policy measures, by comparing the treated with the control group, while controlling for time effects. Particularly, we have considered the estimators of Callaway and Sant'Anna (2020), Borusyak, Javarell and Spiess (2021), Chaisemartin and d'Haultfoeuille (2021) and Sun and Abraham (2020). The control group for this study is the group of enterprises eligible but not treated in the context of these funds. It is important to note that this analysis allows to compare the outcomes with untreated enterprises with the same characteristics. The absence of significant results does not imply that program

did not have positive economic effects, but rather that the performance of supported firms did

not exceed that of non-supported firms.

## Impact in QREN and PT 2020

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The evidence indicates that QREN and PT 2020 had markedly different effects. Considering the estimates that were validated through to the sensitive analysis:

- QREN program did not yield significant robust results.
- PT 2020 had positive effects in GVA, number of R&D workers and extensive margins of exports.

These findings raise important questions about the context dependency of policy effectiveness: in times of economic crisis, as during QREN, the ability of such incentives to produce meas-

urable impacts may be more limited. Conversely, in more favourable economic environments, such as during PT 2020, well-designed support instruments can deliver substantial returns. Additionally, the results point to the benefits of a broader and more inclusive funding strategy, both in terms of coverage (i.e., the number of supported firms) and the range of financial instruments employed.

## Impact per sector

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In addition to the aggregated effects, we explored the sector and incentive type heterogeneity in treatment effects:

- Refundable incentives showed positive robust effects in the number of R&D workers, GVA and extensive margin of exports, while non-refundable incentives did not show any significant impact.
- The effect according to the incentive type depends on the sector. Information and communication activities and consultancy activities, despite being mostly benefited

from non-refundable incentives, showed positive effects in the number of R&D works and productivity, respectively.

- In turn, manufacturing industries - widely benefited from refundable incentives - showed positive effects in the number of R&D workers and extensive margins of exports.

## Policy Recommendations

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### 1. Develop strategic planning in how the funds are implemented and monitored.

The better performance of PT 2020 comparing to QREN can be explained by the economic period and the characteristics of the program. Specifically, PT 2020 supported a larger number of firms and distributed more and more diverse funds than QREN. Simply providing companies with funding and expecting them to thrive is insufficient. Institutional structure and contextual factors play a critical role and should be implemented and monitored according to these factors. Moreover, there is great sector hetero-

geneity. The sector-specific results emphasize the importance of aligning financial support with areas that demonstrate higher potential for productivity and growth.

### 2. To improve accountability and effectiveness, grants should be tied to measurable outcomes, such as productivity gains or innovation milestones.

Notwithstanding the positive outcomes, it seems the role of the funds fell short to what was expected, yielding null impact in several outcome variables. Introducing performance-based fund-

ing mechanisms can help ensure that public resources translate into tangible and sustained economic returns. To support this claim we considered the empirical results where refundable incentives had a significant impact, contrasting with the insignificant results of the non-refundable incentives. While the refundable incentives

did not have explicitly defined performance metrics, the requirement of returning the part of the incentive could stimulate that performance.

## Conclusions

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This study evaluated the impact of EU entrepreneurship-related incentives in Portugal across two distinct programming periods. The comparison revealed that while QREN yielded no significant effects, PT 2020 demonstrated measurable positive impacts on key firm-level outcomes such as exports, gross value added and R&D. These results show the importance of economic context, program design, and policy targeting in determining the effectiveness of financial

support mechanisms. Strategic planning and designing such as linking funding to clear performance metrics such as innovation outputs or productivity improvements and targeting high-impact sectors would lead to improvements in policy efficacy.

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