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# Investment expectations by vulnerable European firms in times of COVID: a difference-in-difference approach

A. Coad, S. Amaral-Garcia, P. Bauer, C. Domnick, P. Harasztosi, R. Pál and M. Teruel  
(Waseda University, JRC, EIB and URV)

**Comments by Laurent Maurin (EIB, Economics Department)**

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# The framework

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Use the EIBIS (pre-21) to illustrate asymmetric reactions of certain type of firms to COVID-19 shocks:

On **investment plans**, expectations related to **internal finance** and **external finance**.

Very important question from a policy perspective: “vulnerable” firms are indeed “promising” firms.

Extensive use of the EIBIS!

The methodology implemented, DiD, provides interesting results. Some have been reported in Chapter 3 of the forthcoming 2021-2022 EIB Investment Report.

I will provide few suggestions for further work/extensions: **Sharpen, deepen and update!**

# Why considering so many types of firms in parallel?

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- HGEs, small firms, young firms, R&D investors, non-subsidary firms, young and small (The sample is not always used consistently): are they really homogenous?
- More could be done to illustrate their strategic role in the ecosystem (Table 1 unclear and Figure 2 not very supportive)
- pairwise correlation – use the EIBIS ORBIS matched?
- Why not under two groups, promising (HGEs and R&D) and vulnerable (small and young)?

# Points to clarify and possible extensions?

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$$Inv_{ict} = \beta_0 + \beta_1 crisis_t \times firm\_type_c + \beta_2 crisis_t + \beta_3 firm\_type_c + \beta_4 CONTROLS_{ict} + \varepsilon_{ict}$$

- $\beta_1$  is the coefficient of interest. It shows the asymmetric reaction of vulnerable firms during the crisis.
- Covid-19 – the first lockdown – is a case of symmetric instantaneous treatment.
- Parallel trend assumption:  $\beta_0$  and  $\beta_1$  time variant in the second part?
- Dummies? Country  $\times$  year and sector  $\times$  year fixed effects?
- Why changing from section 4 to section 5?
- Why not controlling to estimate an investment equation? with sales, internal finance or external finance?
- The dependence can also be type-specific!

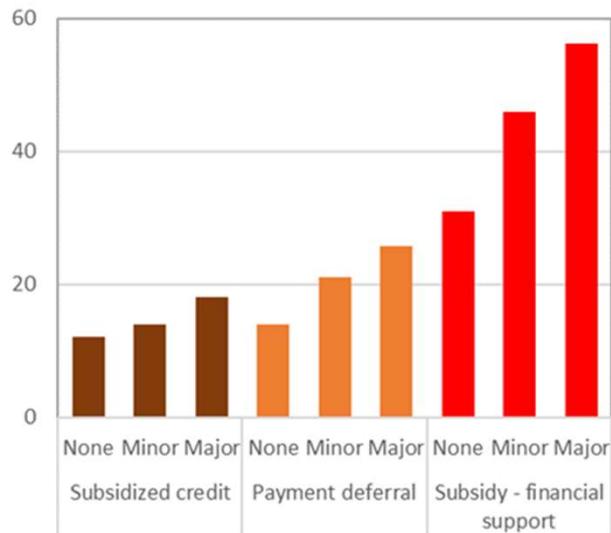
# Using information on the policy support from EIBIS 2021?

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- In the 2021 vintage, four types of firm level policy support are distinguished:
  1. **New subsidized or guaranteed credits** (e.g. loan, overdraft or credit card from a bank or other finance provider) that will need to be paid back in the future but may have preferential or reduced interest rates and/or an extended repayment plan
  2. **Deferral of payments** which still leave a liability to be paid by the company in the future (e.g. deferral of tax payments, deferral of rent or mortgage for commercial property, suspension of interest payments),
  3. **Subsidies or any other type of financial support** that the company will not have to pay back in the future, a type of support that comprises job retention policies
  4. any other type of financial support.
- At the firm level, survey answers are matched with pre-Covid balance sheet characteristics and P&L information (taken from ORBIS).

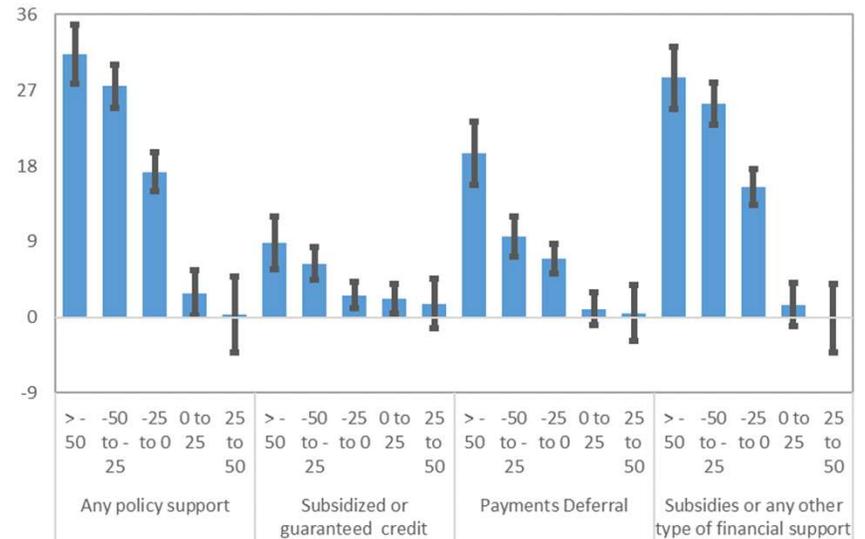
# Harasztosi et al. 2021 show that the support went to the firms most affected: Extensions could be: more towards vulnerable? More supportive for them?

Allotment and sales losses (% of firms)



Source: Calculations based on the EIBIS 2021. Note: The y-axis indicate the proportion of firms having benefitted from the support. Minor (Major) change corresponds to less (more) than 25%.

Impact of sales loss on the likelihood of getting supported (Change in probability, pp.)



$$q_{i,c,s}^k = \alpha Sales_i + \theta_c + \theta_{sec} + \theta_{size} + \varepsilon_i$$

Recording a decline in sales increases the probability to be supported by 21 pp. The intensity of the effect increases with the magnitude of the decline. This is even more pronounced for subsidies and other policy support, a component that includes labour support more linked to sales drops.

# Concluding remarks

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Important questions, simple methodology and interesting results!

That can be updated and extended to develop a more structural understanding....

... as well as an impact analysis of firm-level policy support using the EIBIS 2021.

***Thank you!***