Living With Reduced Income: an Analysis of Household Financial Vulnerability Under COVID-19

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Overview

1. Introduction
2. Financial vulnerability
3. Method and Data
4. Results I: financial vulnerability without COVID-19 Layoff
5. Results II: financial vulnerability with COVID-19 Layoff
6. Policy discussion
7. Conclusions

Outline

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Introduction

The pandemic from an economic point of view

We can think of the COVID-19 pandemic as at least two major crisis:

- Health crisis.
- Economic crisis.
  - **Supply side:**
    - Reduction of labour supply
    - Business closures and supply disruptions (e.g., social distancing).
  - **Demand side:**
    - Fall in household incomes, job losses, reduction in hours worked.
    - Reduction in household consumption and investment.

EU member states face the same storm but not everybody is in the same boat: there are differences **between** and **within** countries.

Introduction

The pandemic from an economic point of view

Between countries

- Tourism dependence
- Fiscal space
- Quality of governance
- Public indebtedness.

▸ Sapir.A (2020): COVID on EU economies

Within countries

- Gender
- Education
- Type of job, industry, is it possible to work from home?

▸ VOX-EU (2020): COVID on Gender Equality

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The pandemic from an economic point of view

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Within countries

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In that context **our paper analyses** households' pre-existing vulnerabilities to an income shock and assesses the degree of protection awarded to employees, in different European countries, by COVID-19 employment protection schemes.

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Financial vulnerability

Financial vulnerability: how can we interpret it?

- Likelihood that a shock will result on a decline of individuals' well-being.
- Capacity of individual to face shocks.

How can we measure individuals' financial vulnerability?

- **Objective measures:** independent of the individual's opinion, typically not self-reported, e.g., possession of financial assets.
- **Subjective measures:** based on perceptions and typically self-reported.
  - Lusardi et al (2011) for US: How confident are you that you could come up with $2,000 if an unexpected need arose within the next month?

Financial vulnerability

How we approach household financial vulnerability:

- Instead of asking individuals whether they would be able to cope with a hypothetical shock, we assess whether they can cover their expenditures under a hypothetical shock.
- In particular, we analyse whether households can afford basic expenditures if deprived of their privately earned income, resorting, instead, to a combination of their savings and publicly provided income such as pensions and public transfers.

Financial vulnerability

How we approach household financial vulnerability:

- Instead of asking individuals whether they would be able to cope with a hypothetical shock, we assess whether they can cover their expenditures under a hypothetical shock.
- In particular, we analyse whether households can afford basic expenditures if deprived of their privately earned income, resorting, instead, to a combination of their savings and publicly provided income such as pensions and public transfers.

What we do in the paper:

1. We provide an estimation of the number of households that could not afford basic expenses without privately earned income.
2. We simulate the net individual income obtained under the actual COVID-19 unemployment protection schemes enacted by the countries of our sample, and assess whether they can afford basic expenditures.

Financial vulnerability

Elements coming into play when a financial shock takes place:

- **Consumption patterns:** reduce demand for certain goods (Hamermesh 1982) or increase own production of goods (Aguiar and Hurst 2007).
- **Consumption commitments:** adapting consumption patterns - not possible in all cases nor for all types of consumption (Chetty and Szeidl 2007).
- **Consumption habits**: only changes in consumption from the habitual level affect individual's utility $\rightarrow u(c_i, x_i)$ (Naik and Moore 1996)
- **Additional resource sources:** consumer credit, loans or gifts from family, precautionary savings in cash.

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Method and Data

Data

- Wave 3 of HFCS - Released in March 2020 and carried out in 2017.
- Eight countries: Austria, Belgium, Finland, France, Germany, Italy and Portugal.

Deriving net income:

- HFCS only covers gross income so we derive net income through the EUROMOD microsimulation model.
- EUROMOD calculates country-specific social insurance contributions, income taxation and means-tested cash benefits to obtain market incomes.

Method and Data

We consider a household as vulnerable if the household pooled resources is lower than the household pooled expenses. In other terms

Definition

$$vulnerable_h^m = 1\left\{ ratio_h^m = \frac{pooled\_resources_h(m)}{pooled\_expenses_h(m)} < 1 \right\}$$

where:

m: number of months

h: household ID

We consider three versions of the denominator:

1. Food and utilities.
2. Food and utilities + Rent.
3. Food and utilities + Rent + Mortgages.

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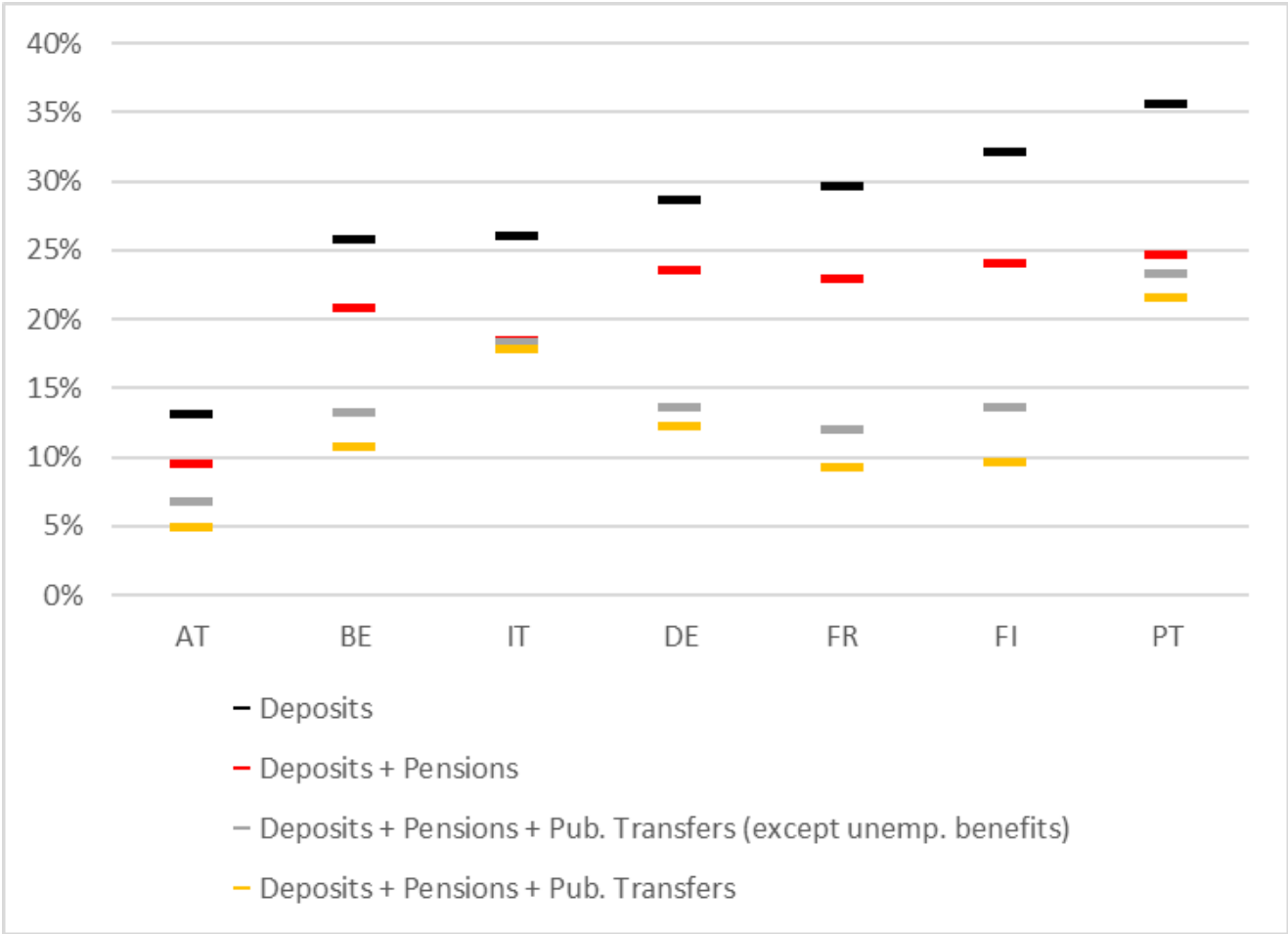
Results I: financial vulnerability without COVID-19 Layoff

Food and utilities in 3 months

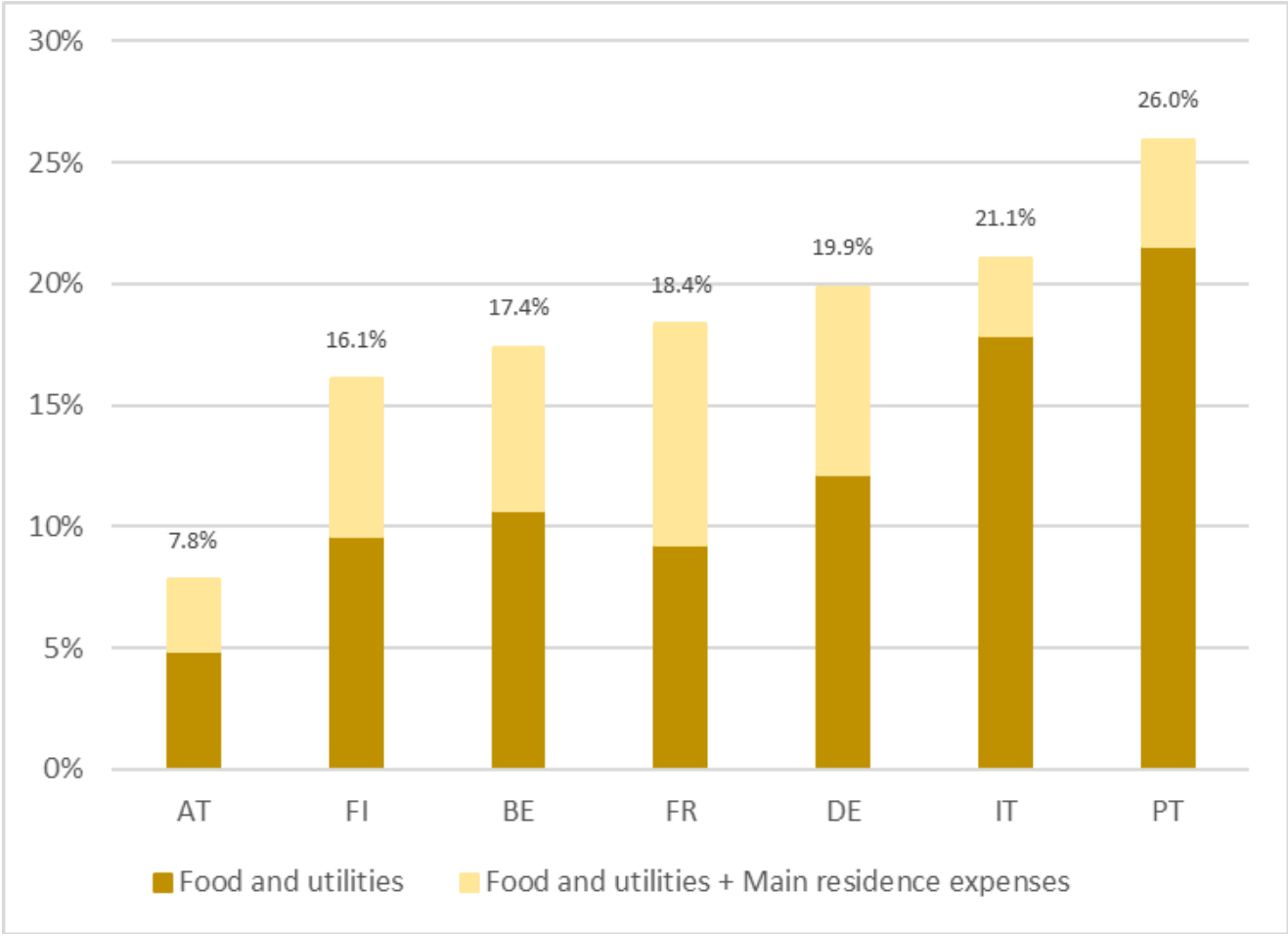
Percentage of vulnerable individuals in a three months horizon, considering food and utilities.



Results I: financial vulnerability without COVID-19 Layoff

The burden of housing expenses

Percentage of vulnerable individuals in a three months horizon when rent and mortgages are added to food and utilities (using deposits, pensions and public transfers)



Results I: financial vulnerability without COVID-19 Layoff

Vulnerability by specific groups

Risk of not being able to cover for 3 months of expenses without any privately earned income having been born outside the country, relative to those born in the country

	Relative risk, born elsewhere in the EU	Relative risk, born outside EU	Relative risk, secondary or lower	Relative risk, 12 or below
AT	2.40	2.43	1.16	1.21
BE	1.33	2.31	1.18	1.08
DE	1.92	1.74	1.29	1.36
FI	1.47	1.43	1.20	1.15
FR	1.25	1.49	1.19	1.21
IT	2.08	2.56	1.44	1.46
PT	0.98	1.60	1.25	1.25

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Results II: financial vulnerability with COVID-19 Layoff

How does it works?

Unemployment benefit simulated for employees:

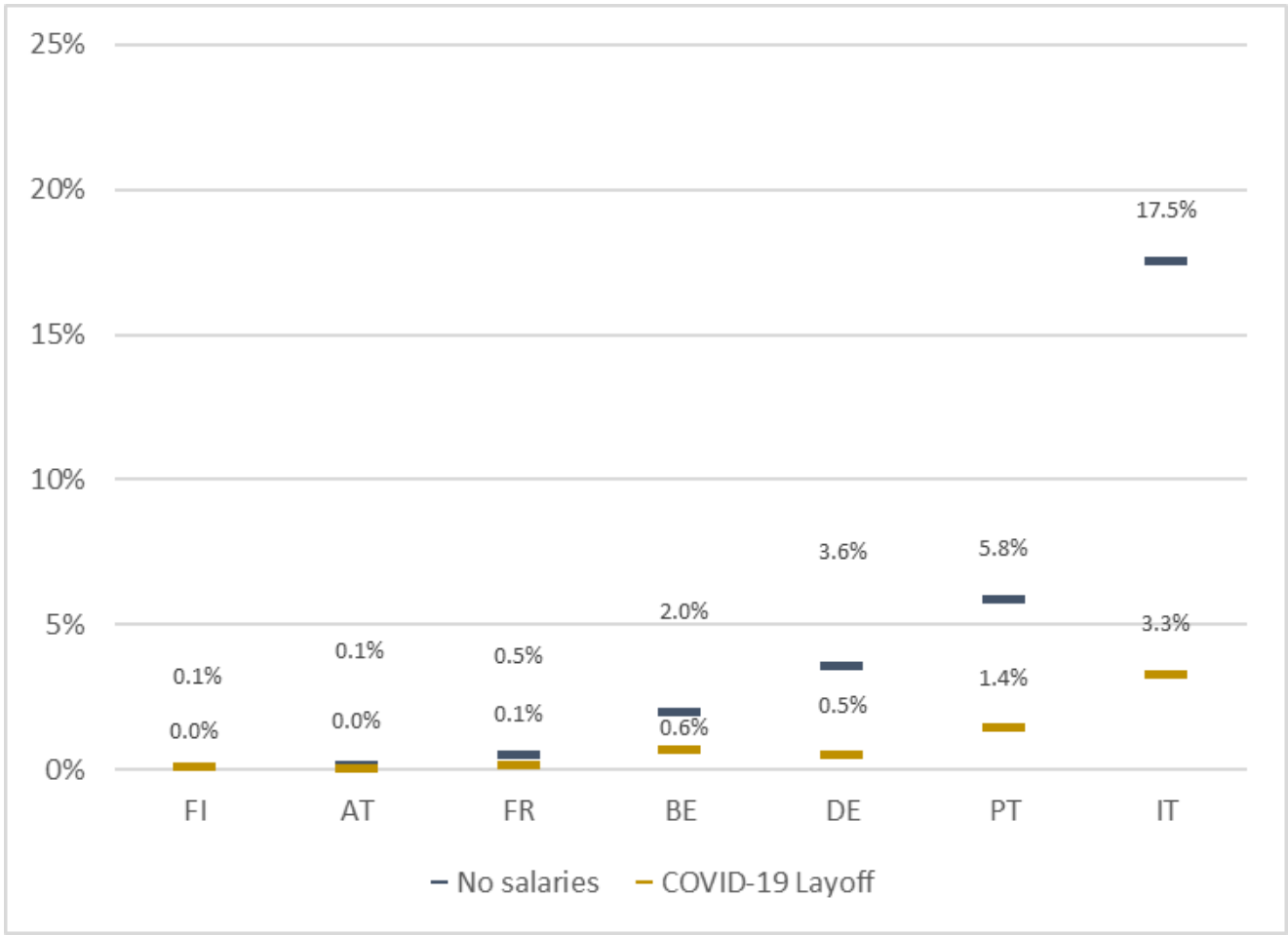
- Normally is a percentage of gross salary with a minimum and a maximum.
  - For example in France it is 70% of the gross salary with a minimum of 1,219 €(national minimum wage) and a maximum of 5,485.5€.
- In Austria ranges from 80% to 90% of previous net monthly earnings, according to their level.
- In Finland it is a daily amount (33.6€), additive in function of the number of children in the household.

How vulnerable are households of the employee population when they have to resort to their bank savings, pensions, pre-existing subsidies, **and** to COVID-19 unemployment benefits?

Results II: financial vulnerability with COVID-19 Layoff

3 months with food and utilities

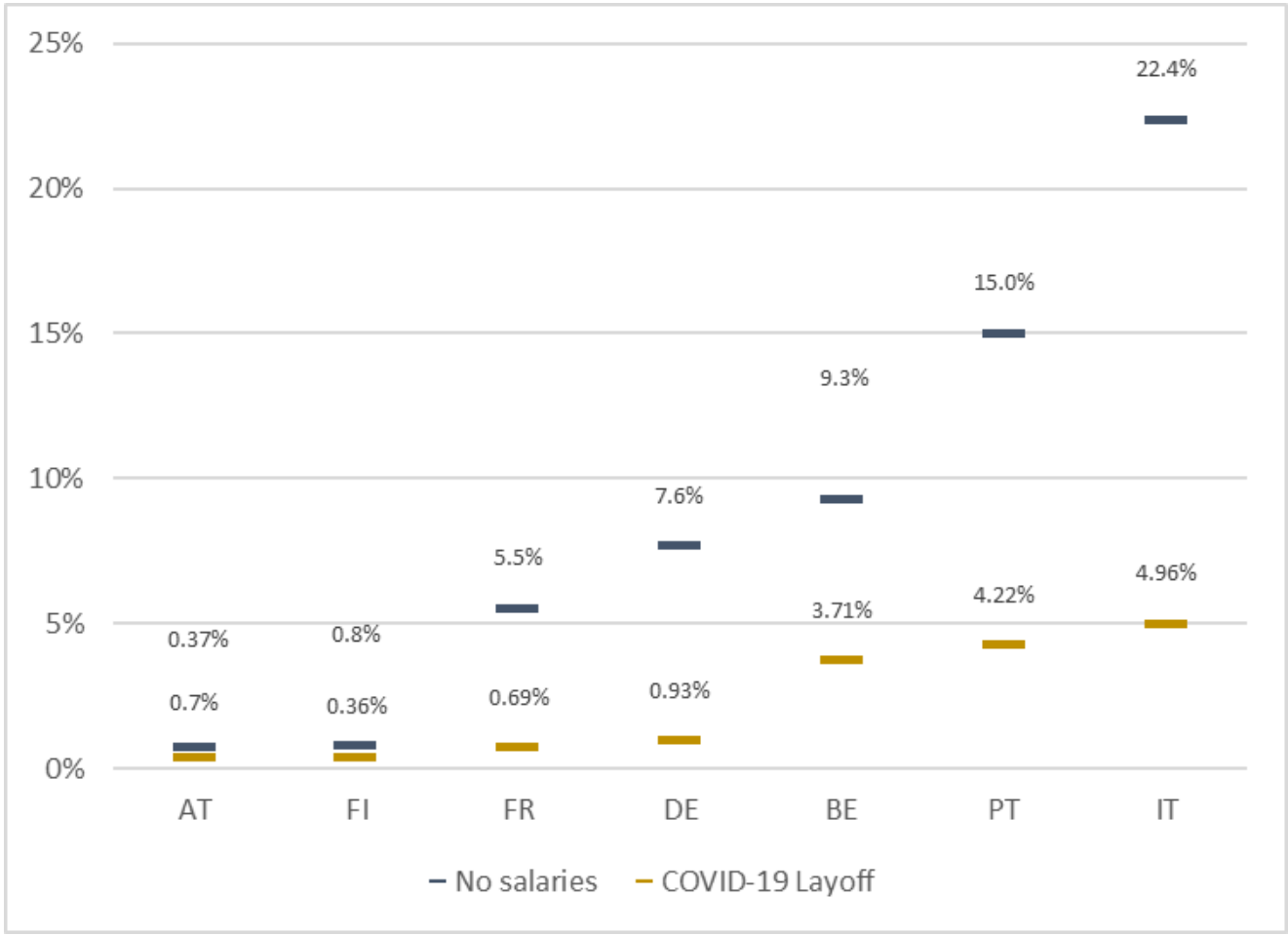
Financial vulnerability at 3 months considering food and utilities expenses



Results II: financial vulnerability with COVID-19 Layoff

3 months with food and utilities, rent and mortgages

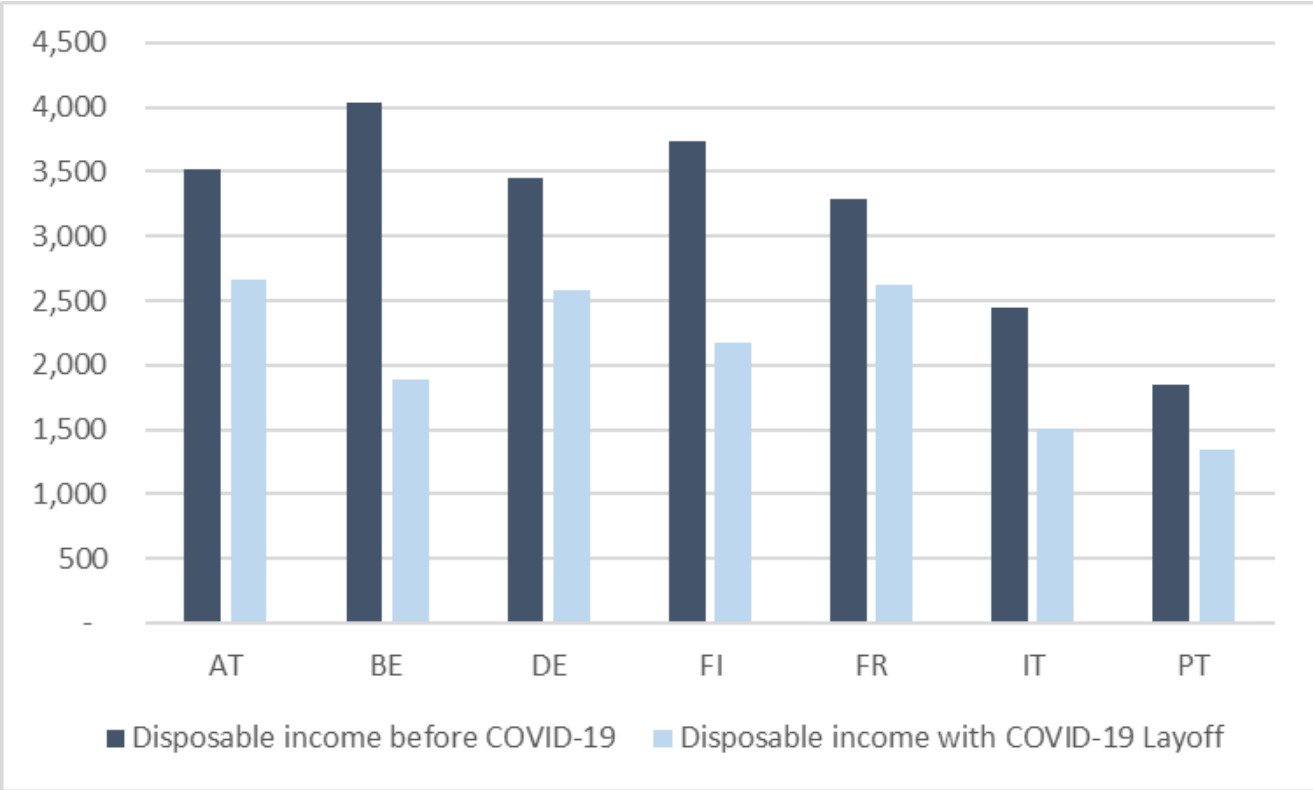
Financial vulnerability at 3 months considering food and utilities, rent and mortgages expenses



Results II: financial vulnerability with COVID-19 Layoff

3 months with food and utilities, rent and mortgages

Average household disposable income for households earning salary income, before COVID-19, and with COVID-19 layoff but no other salary income (in €).



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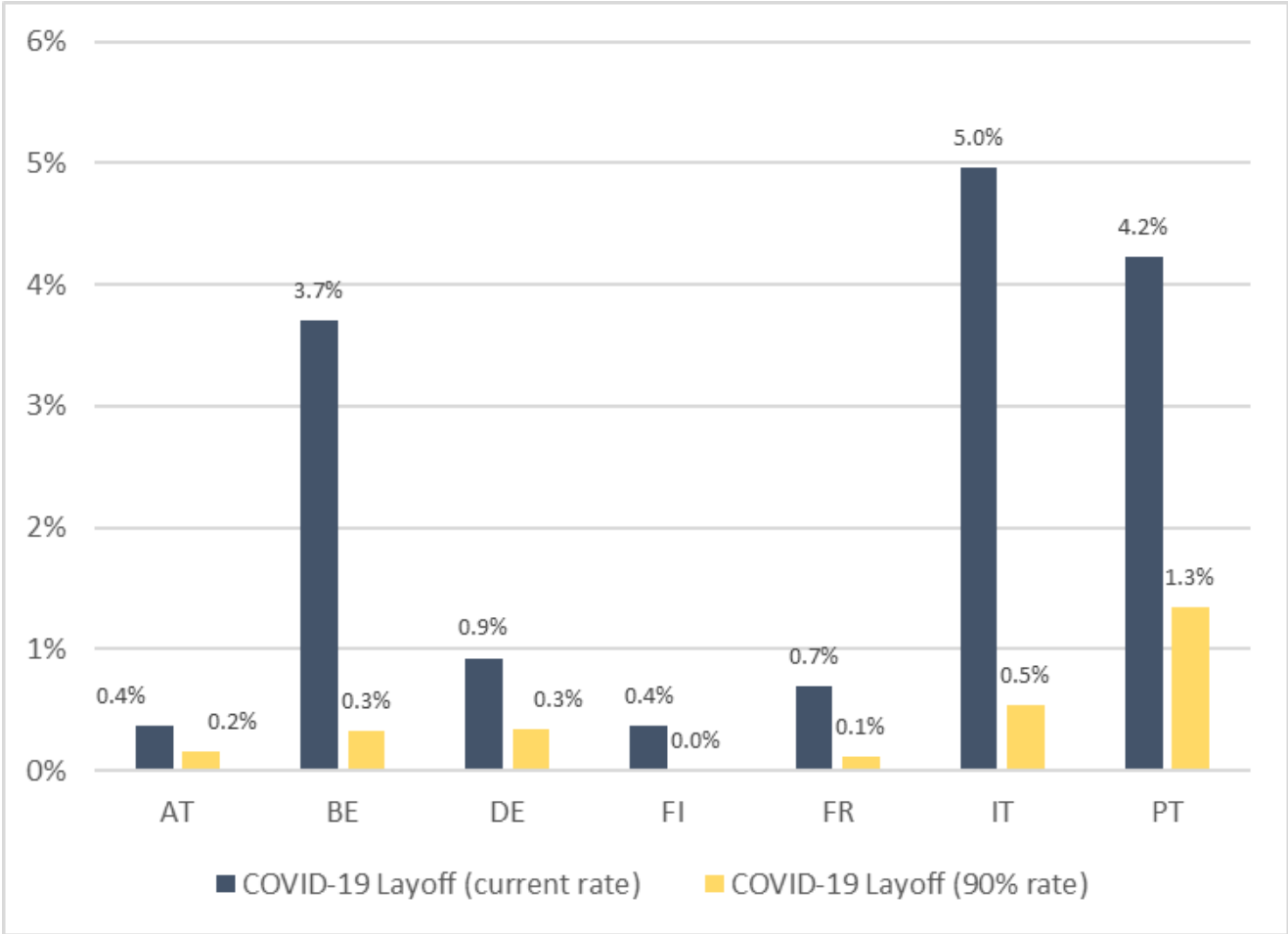
Policy discussion

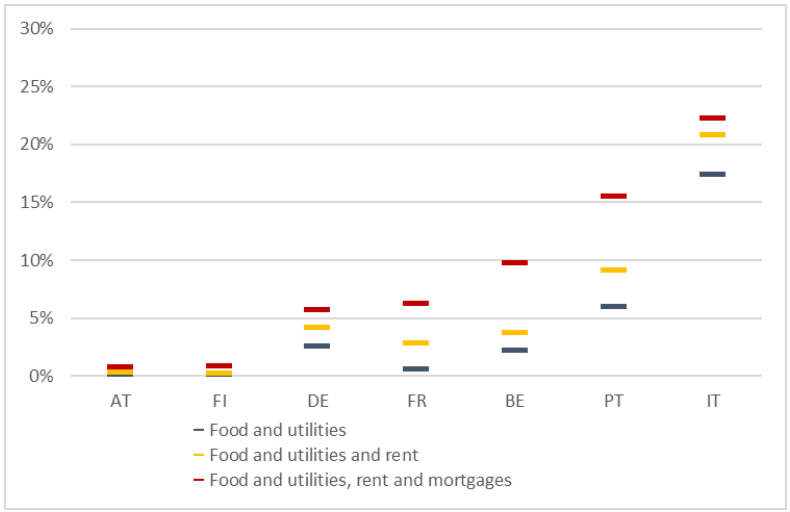
1. Effects of a more generous COVID-19 unemployment benefit

Vulnerability with the current COVID-19 layoff and with a replacement rate of 90% of salaries, considering food and utilities and housing expenses

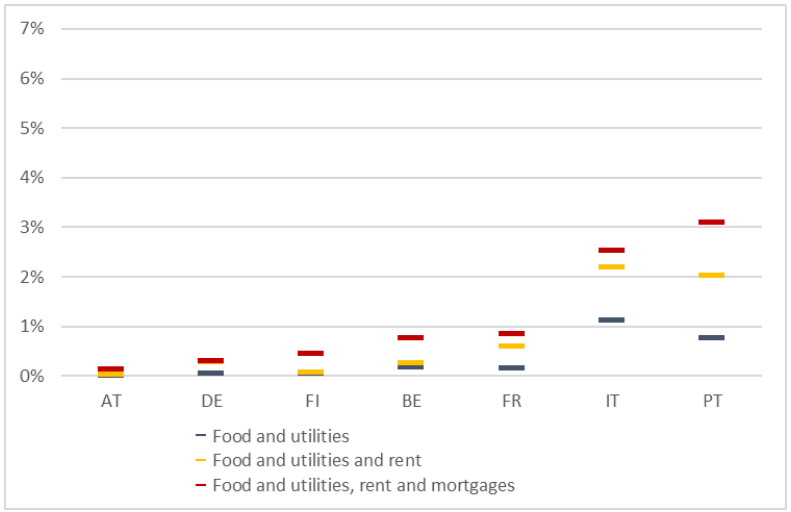


Policy discussion

2. suspension of rent and mortgages on the main household.



(a) Vulnerability **without** COVID-19 layoff considering food and utilities and housing expenses (by component)



(b) Vulnerability **with** COVID-19 layoff considering food and utilities and housing expenses (by component)

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Conclusions (1/3)

- Millions of Europeans could not endure an income shock without generous, targeted, government policies: 47.2 millions (out of 243 million in 21 EU countries) cannot cover for three months of expenses considering food and utilities, rent and mortgages.
- We find stark differences across countries: in Austria, France and Finland, the percentage is below 9.5%, while in Italy and Portugal it is 17.8% and 21.5% respectively.
- Public pensions are essential to cover basic expenses for many of the households which receive them.
- Providing substantial income support is fundamental even in a short term: in all countries, we observe a significant drop in the number of vulnerable population when we award the COVID-19 unemployment benefit.

Conclusions (2/3)

- Rent and mortgage suspensions are more effective in some countries than in others.
- In countries as Italy and Portugal, even with the suspension of all loan repayments in tandem with the layoff, a larger percentage of individuals would be unable to afford their basic expenditures.
- Additionally while income support and loan suspension are effective in reducing individuals' vulnerability the latter implies only a short-term commitment thus it is less effective in fueling future consumption.

Conclusions (3/3)

Some keys to explain why some countries are doing better than others.

1. In countries like Austria, Belgium or Finland almost nobody reports receiving an income in tandem with basic expenses while in Italy or Portugal it's above 8%.
2. Pre-existent savings in households in Austria, Belgium and Finland are higher.
3. The percentage of salary covered by the scheme in countries as Portugal was substantially smaller than the one of the scheme in for example Austria.

Our paper is available at:

- **Midoes, C and Seré, M (2021)**, *"Living with Reduced Income: An Analysis of Household Financial Vulnerability under COVID-19"*. COVID Economics 63, Vetted and Real-Time Papers

A shorter version can be found in this VOX-EU column.

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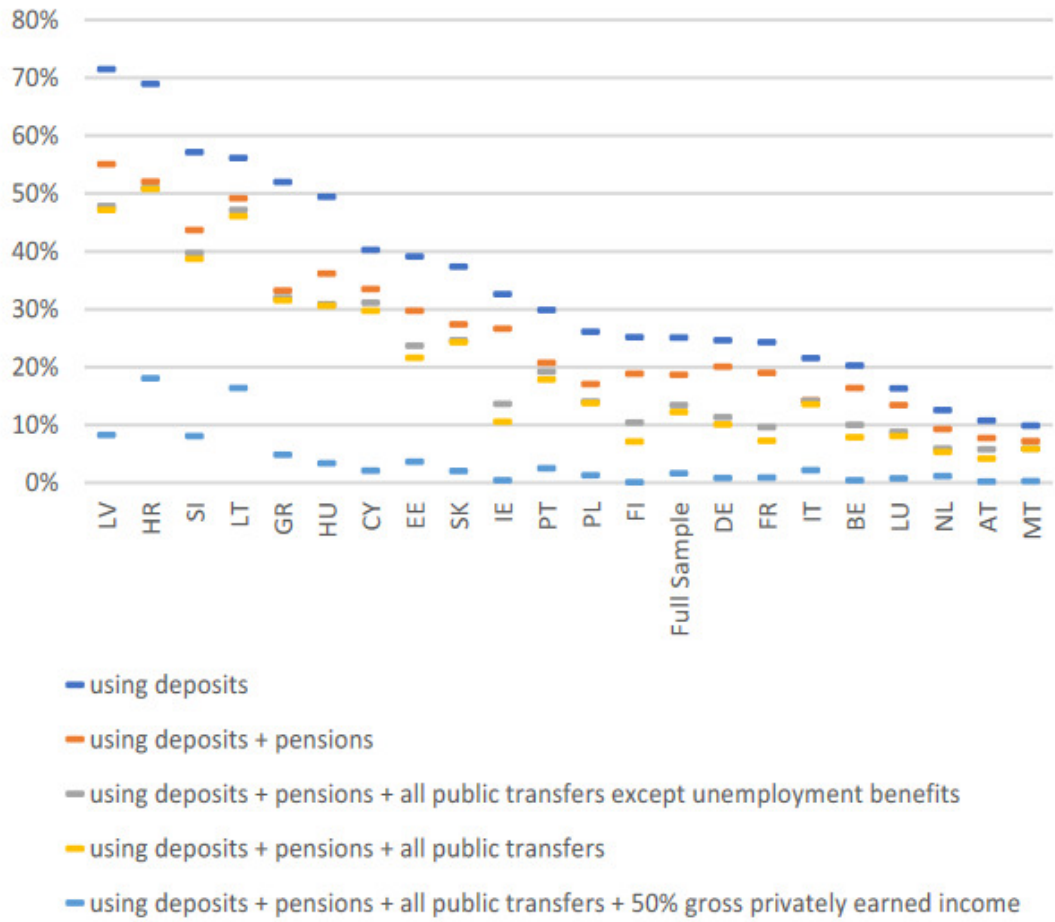
Appendix: financial vulnerability without COVID-19 Layoff

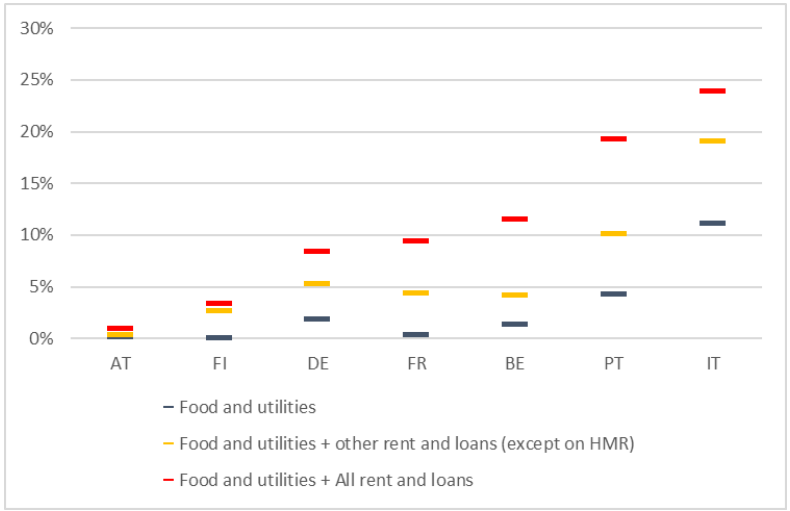
Food and utilities in 2 months

Percentage of individuals who cannot cover two months of expenses with food and utilities

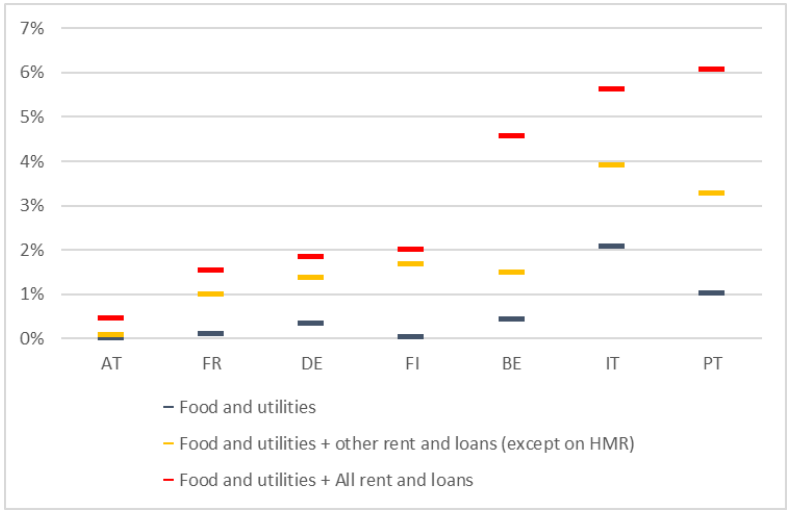


Appendix: Policy discussion

3. The role played by all rents and loans



(a) Vulnerability **without** COVID-19 layoff considering food and utilities and all rents and loans



(b) Vulnerability **with** COVID-19 layoff considering food and utilities and all rents and loans

Appendix: Microsimulations

Additional details on the COVID-19 unemployment benefits simulated

	Fiscal response
Austria	Percentage of salary coverage ranges from 80% to 90% of previous net monthly earnings, according to their level. If gross monthly earnings of the previous month were above €5,370, there is no public compensation.
Belgium	Percentage of salary coverage is 70% of gross salaries, with a minimum of €1,591.72 (national minimum wage) and a maximum of €2,074.80, and subject to income taxation of 15%. An additional €5.32 per day are awarded to individuals.
Finland	€33.66 per day, gross, are awarded to individuals, plus an additional daily subsidy of up to €10, according to the number of children in the household.
France	Percentage of salary coverage is 70% of gross salaries, with a minimum of €1219 (national minimum wage) and a maximum of €5485.5.
Germany	Percentage of salary coverage is, during the first four months, 60% of net income, or 67%, if there are children in the household. For benefit calculation, monthly gross wages are capped at €6,900. Between the fourth and seventh month it increases to 70% and after the seventh month to 80%.
Italy	Percentage of coverage is 80% of gross salaries. If salary is below €2,159.48 contribution is capped at €939.89; if it is above, contribution is capped at €1,199.72
Portugal	Percentage of coverage is 66% of gross salaries with a minimum of €635 (national minimum wage) and a maximum of €1,905