The Unequal Consequences of Job Loss across Countries

Antoine Bertheau [1]   Edoardo Acabbi [2]   Cristina Barceló [3]
Andreas Gulyas [4]   Stefano Lombardi [5]   Raffaele Saggio [6]

[1]University of Copenhagen [2]Universidad Carlos III de Madrid [3]Banco de España
[4]University of Mannheim [5]VATT Helsinki [6]University of British Columbia

All views and opinions are our own.

37th **Meeting of the European Economic Association**
Milano, 25th August 2022

Introduction

- How large and persistent are the consequences of job loss in Europe?

- Losing a job may have a tremendous impact on workers career (Jacobson et al, 1993).
  - More efficient labour markets generate lower earnings losses.
  - Recent debate on the sources of job-loss effects (Lachowska et al, 2020; Schmieder et al, 2020).

- Comparing trajectories of displaced workers across labor markets:
  - Reveals which markets are functioning better than others.
  - Sheds light on mechanisms (supply factors, demand factors, institutions/frictions).

- Results across studies are hard to compare and reconcile due to differences in:
  - Methodologies (research designs/sampling)
  - Institutions (unemployment insurance, employment protection, etc.)

- THIS PAPER: harmonized dataset and analysis using European employer-employee administrative data.

What we do:

1. Document the long-run impact of job loss on labour market outcomes across 7 European countries:
   - ▶ Countries: (i) Spain, Italy, Portugal; (ii) France, Austria; (iii) Denmark and Sweden;
   - ▶ Method: use a standard "mass layoff" event study design

2. Analyse the drivers of cross-country heterogeneities:
   - ▶ The contribution of employer characteristics in explaining earnings losses (AKM model).
   - ▶ Compositional differences across countries (Oaxaca-Blinder decompositions).
   - ▶ Understanding differences in re-employment probabilities across countries.

What we find:

1. Even within Europe, substantial heterogeneity of earnings losses 5 years after job loss:

   - 10% in Nordic countries vs 30% in Southern Europe (not driven by compositional differences).

2. A large share of wage losses is related to transitions to worse-paying firms:

   - At least 50% of wage losses in most countries.

3. Earnings losses mostly explained by the extensive margin: Non-employment probabilities substantially larger in Southern countries (25%) vs the rest (around 5%).

Table 1: Review of Research Designs and Impact of Job Loss on Earnings

Paper	Country	Year	Tenure	Event	Firm size	Gender	Control: Stayer	Earnings in year 5
Gulyas & Pytka (2020)	AT	1984-2017	2	Mass layoff $\geq$ 30%	30	Male	No	-16%
Halla et al (2020)	AT	1990-2007	1	Mass layoff	10	Male	No	-20%
Bennett & Ouazad (2019)	DK	1990-1994	3	Mass layoff $\geq$ 30%	30	Male	No	- 23%
Roulet (2020)	DK	2001-2006	5	Plant closure	5	Both	No	- 12%
Royer (2011)	FR	1995-1999	2	Plant closure	10	Both	No	-16%
Brandily et al (2021)	FR	2002-2012	2	Separation Reason	none	Both	No	-36%
Schmieder et al (2020)	DE	1975-2005	3	Mass layoff $\geq$ 30%	50	Male	No	-20%
Fackler et al (2021)	DE	2002-2014	3	Separation Reason	none	Male	No	-12%
Leombruni et al (2013)	IT	1989-1994	3	Plant closure	none	Both	No	-9%
Mossucca (2016)	IT	2005-2010	6	Mass layoff	none	Both	Yes	-9%
Carneiro & Portugal (2006)	PT	1991-1998	3	Plant closure	none	Both	Yes	-6%
Raposo et al (2021)	PT	1988-2014	2	Plant closure	20	Both	No	-27%
Garcia-Cabo (2018)	ES	2005-2015	1.5	Separation Reason	none	Both	Yes	-32%
Garda (2012)	ES	1999-2004	3	Separation Reason	5	Male	No	-25 %
Eliason & Storrie (2006)	SW	1987-1988	none	Plant closure	10	Both	No	-11%
Seim (2019)	SW	2002-2004	1.5	Separation Reason	5	Male	No	-15%
Jacobson et al (1993)	US	1974-1986	6	Mass layoff $\geq$ 30%	50	Both	Yes	-25%
Lachowska et al (2020)	US	2002-2014	6	Mass layoff $\geq$ 30%	50	Both	Yes	-17%

Table 1: Review of Research Designs and Impact of Job Loss on Earnings

Paper	Country	Year	Tenure	Event	Firm size	Gender	Control: Stayer	Earnings in year 5
Gulyas & Pytka (2020)	AT	1984-2017	2	Mass layoff $\geq$ 30%	30	Male	No	-16%
Halla et al (2020)	AT	1990-2007	1	Mass layoff	10	Male	No	-20%
Bennett & Ouazad (2019)	DK	1990-1994	3	Mass layoff $\geq$ 30%	30	Male	No	- 23%
Roulet (2020)	DK	2001-2006	5	Plant closure	5	Both	No	- 12%
Royer (2011)	**FR**	**1995-1999**	**2**	**Plant closure**	**10**	**Both**	**No**	**-16%**
Brandily et al (2021)	**FR**	**2002-2012**	**2**	**Separation Reason**	**none**	**Both**	**No**	**-36%**
Schmieder et al (2020)	DE	1975-2005	3	Mass layoff $\geq$ 30%	50	Male	No	-20%
Fackler et al (2021)	DE	2002-2014	3	Separation Reason	none	Male	No	-12%
Leombruni et al (2013)	IT	1989-1994	3	Plant closure	none	Both	No	-9%
Mossucca (2016)	IT	2005-2010	6	Mass layoff	none	Both	Yes	-9%
Carneiro & Portugal (2006)	PT	1991-1998	3	Plant closure	none	Both	Yes	-6%
Raposo et al (2021)	PT	1988-2014	2	Plant closure	20	Both	No	-27%
Garcia-Cabo (2018)	ES	2005-2015	1.5	Separation Reason	none	Both	Yes	-32%
Garda (2012)	ES	1999-2004	3	Separation Reason	5	Male	No	-25 %
Eliason & Storrie (2006)	SW	1987-1988	none	Plant closure	10	Both	No	-11%
Seim (2019)	SW	2002-2004	1.5	Separation Reason	5	Male	No	-15%
Jacobson et al (1993)	US	1974-1986	6	Mass layoff $\geq$ 30%	50	Both	Yes	-25%
Lachowska et al (2020)	US	2002-2014	6	Mass layoff $\geq$ 30%	50	Both	Yes	-17%

Table 1: Review of Research Designs and Impact of Job Loss on Earnings

Paper	Country	Year	Tenure	Event	Firm size	Gender	Control: Stayer	Earnings in year 5
Gulyas & Pytka (2020)	AT	1984-2017	2	Mass layoff $\geq$ 30%	30	Male	No	-16%
Halla et al (2020)	AT	1990-2007	1	Mass layoff	10	Male	No	-20%
Bennett & Ouazad (2019)	**DK**	**1990-1994**	**3**	**Mass layoff $\geq$ 30%**	**30**	**Male**	**No**	**- 23%**
Roulet (2020)	**DK**	**2001-2006**	**5**	**Plant closure**	**5**	**Both**	**No**	**- 12%**
Royer (2011)	FR	1995-1999	2	Plant closure	10	Both	No	-16%
Brandily et al (2021)	FR	2002-2012	2	Separation Reason	none	Both	No	-36%
Schmieder et al (2020)	DE	1975-2005	3	Mass layoff $\geq$ 30%	50	Male	No	-20%
Fackler et al (2021)	DE	2002-2014	3	Separation Reason	none	Male	No	-12%
Leombruni et al (2013)	**IT**	**1989-1994**	**3**	**Plant closure**	**none**	**Both**	**No**	**-9%**
Mossucca (2016)	**IT**	**2005-2010**	**6**	**Mass layoff**	**none**	**Both**	**Yes**	**-9%**
Carneiro & Portugal (2006)	PT	1991-1998	3	Plant closure	none	Both	Yes	-6%
Raposo et al (2021)	PT	1988-2014	2	Plant closure	20	Both	No	-27%
Garcia-Cabo (2018)	ES	2005-2015	1.5	Separation Reason	none	Both	Yes	-32%
Garda (2012)	ES	1999-2004	3	Separation Reason	5	Male	No	-25 %
Eliason & Storrie (2006)	SW	1987-1988	none	Plant closure	10	Both	No	-11%
Seim (2019)	SW	2002-2004	1.5	Separation Reason	5	Male	No	-15%
Jacobson et al (1993)	US	1974-1986	6	Mass layoff $\geq$ 30%	50	Both	Yes	-25%
Lachowska et al (2020)	US	2002-2014	6	Mass layoff $\geq$ 30%	50	Both	Yes	-17%

Continuously employed

Our contribution:

1. First comparable estimates of the consequences of job displacement across nations using a harmonized dataset.

2. Disentangle the sources of displaced workers' pay losses both within and between countries.

Outline of the Talk

1. Introduction

2. Data description

3. Empirical Strategy and Results

4. Understanding the unequal consequences of job loss across countries

5. Conclusions

Data description

- Data sources: employer-employee data from Social Security records.
- Harmonized dataset covering worker displacement event from 1994 to 2016 in six countries. Spain from 2007.

Table 2: Characteristics of data sources by country.

	Italy	Portugal	Spain	France	Austria	Denmark	Sweden
Sample period	93-16	92-17	07-19	94-16	87-18	83-17	94-16
Employees:							
Similar job	YES	YES	YES	YES	YES	YES	YES
% population	6.5	100	4	8	100	100	100
Employers:							
Esta & Firm ID	YES	YES	YES	YES	NO	YES	YES
Private & Public sector	YES	YES	YES	YES	YES	YES	YES
Source:	INPS	QP	MCVL	DADS	AMDB	IDA	RAMS

Research Design: Matched difference-in-differences

▶ We follow closely Schmieder, von Wachter and Heining (2020).

▶ Sample population: Employees aged under 50 in the private sector whose:

  - Establishments have at least 50 workers at the pre-displacement year $(t^* - 1)$

  - Long-term workers, i.e. with a job tenure higher than 3 years at the pre-displacement year

▶ **Treated group**: experience an involuntary job loss with their main employer:

  - Establishment size drops by $>30\%$ between years $t^* - 1$ and t^* (year of mass layoff).

  - Employer reasons of job separations in t^* are economic layoffs in Italy and mass layoffs in Spain (*EREs* in Spanish).

  - Workers are not recalled at the main employer in t^* in post-treatment.

  - Exclude displaced workers from a given firm if more than 20% jointly move to another firm.

- **Control group**: workers that never suffered a displacement event.

  Displaced workers are matched with one comparable control worker:

    - Match perfectly done at each cell of calendar year, gender and industry.

    - Other characteristics in the propensity score: age, employer size, job tenure, working time (full-time/part-time) and kind of job contract (opend-ended vs fixed-term) in $t^* - 1$ and previous earnings in various years before.

    - 1:1 nearest neighbor matching algorithm without replacement.

Table 3: Descriptive Statistics: Employees

	Denmark		Sweden		Italy		Spain		Austria		France		Portugal	
	T	C	T	C	T	C	T	C	T	C	T	C	T	C
Earnings	40.3	40.2	32.8	32.8	23.1	23.3	22.2	22.1	29.3	29.3	28.6	28.8	14.6	14.7
Age	33.7	34.2	36.6	36.7	37.7	37.7	38.2	38.0	38.2	38.1	37.3	37.5	35.8	35.8
Female	0.37	0.37	0.35	0.35	0.40	0.40	0.41	0.41	0.42	0.42	0.36	0.36	0.48	0.48
Job tenure	5.8	5.8	7.3	7.3	4.7	4.7	6.7	6.6	7.3	7.3	6.6	6.6	10.4	10.4
FTC	–	–	–	–	0.06	0.06	0.14	0.15	–	–	0.09	0.09	0.13	0.13
Full time	0.81	0.81	–	–	0.86	0.85	0.87	0.86	–	–	0.88	0.88	0.89	0.89
% Mass layoff event	2.84		1.12		3.42		1.80		2.59		0.70		1.88	
Workers (in 1000)	201.91	201.91	97.36	97.36	66.28	66.28	14.71	14.71	55.89	55.89	28.66	28.66	170.79	170.79

Notes: T and C denote treatment group and control groups of workers, respectively. FTC means Fixed-term contracts.

Table 3: Descriptive Statistics (Contd.): Employers

	Denmark		Sweden		Italy		Spain		Austria		France		Portugal	
	T	C	T	C	T	C	T	C	T	C	T	C	T	C
Industry:														
Manufacturing	0.38	0.38	0.42	0.42	0.36	0.36	0.26	0.26	0.47	0.47	0.44	0.44	0.53	0.53
Services	0.34	0.34	0.32	0.32	0.31	0.31	0.59	0.59	0.13	0.13	0.33	0.33	0.38	0.38
Other	0.28	0.28	0.25	0.25	0.33	0.33	0.15	0.15	0.41	0.41	0.23	0.23	0.09	0.09
Employer size	369	344	387	382	364	359	342	361	323	308	320	342	334	322
Firms (in 1000)	7.09	10.04	6.04	15.04	22.64	28.22	13.25	13.70	1.14	5.85	8.66	19.31	7.96	44.98

Notes: T and C denote treatment group and control group of workers, respectively.

Empirical strategy: baseline event-study

- Let t_i^* denote the year of mass layoff experienced by individual i

$$y_{it} = \alpha_i + \lambda_t + \sum_{k=-5}^{k=5} \gamma_k \mathbf{1}\{t = t_i^* + k\} + \sum_{k=-5}^{k=5} \theta_k \mathbf{1}\{t = t_i^* + k\} \times Displaced_i + X_{it}'\beta + r_{it}$$

(1)

- Coefficients of interest: θ_k

  θ_k: effect of job loss in each year relative to mass layoff ($t^* - 5$, $t^* - 4$,..., t^*, $t^* + 1$,..., $t^* + 5$)

  α_i: worker effects; λ_t: calendar year effects; γ_k: baseline trends around each event; X_{it}: other covariates (age squared); β: model parameters; r_{it}: error term

- Estimated separately for each country.

- Main outcomes y_{it}:
  - Total labor earnings across employers
  - Daily wage at the main employer
  - Probability of employment and total days worked across employers

Figure 1: The impact of job loss on labour earnings across years
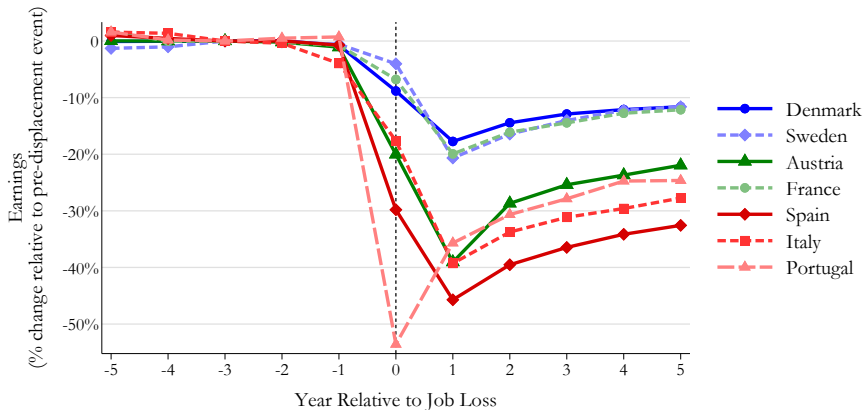
Gender

Figure 2: The impact of job loss on employment across years

Denmark
Sweden
Austria
France
Spain
Italy
Portugal

Worked days
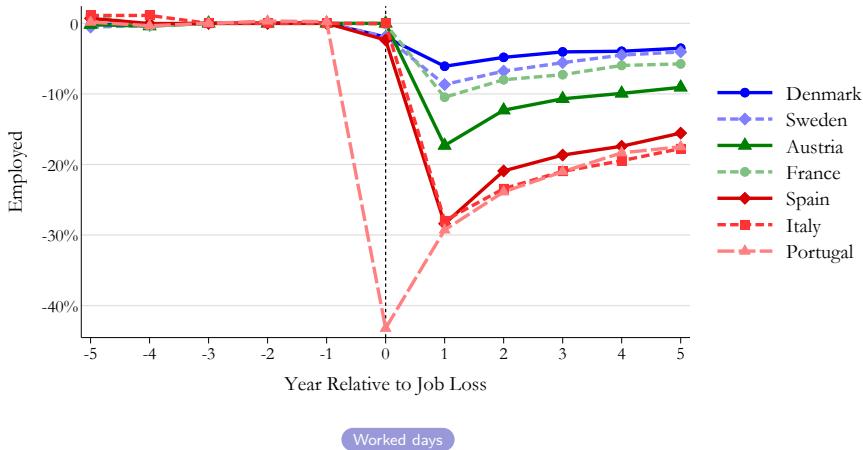
Figure 3: The impact of job loss on wages (daily earnings) across years
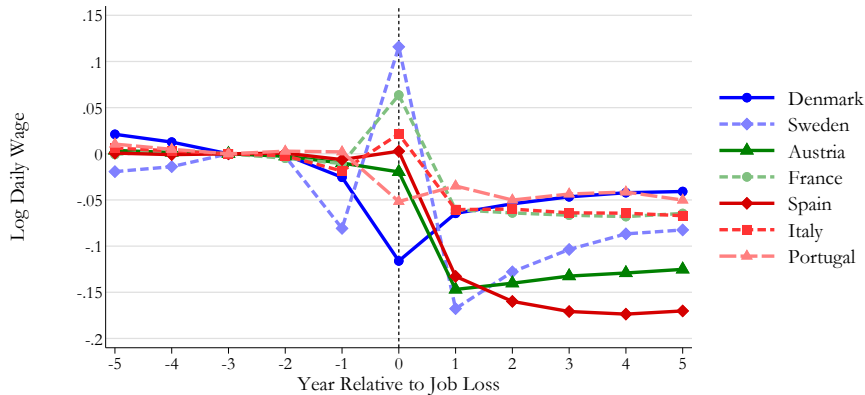
Other outcomes in Spain

Some robustness checks

1. No trends in earnings losses except for Italy. `Trends`

2. Very small differences in earnings losses by gender. `Gender`

3. Earnings losses in France and Austria comparable to those in Germany. `Germany`

4. Differences in coverage of self-employment and public jobs do not account for the bulk of employment responses. `Coverage`

5. Same ranking of heterogeneity on wages across countries taking into account self-selection using Lee bounds (2009). `Lee bounds`

6. Observed differences of displaced workers and employers across countries seem not to explain the heterogeneity in earnings and wage losses across countries. `Oaxaca decompositions`

7. No differences in earnings losses due to alternative definitions of mass layoffs:
   - ▶ Based only on employer size reductions vs also combining with job separation reasons given by employers.
   - ▶ In Italy, economic layoffs
   - ▶ In Spain, mass layoffs (*Expedientes de Regulación de Empleo, EREs*) Job separation reasons

8. Differences in earnings and wage losses due to the use of earnings from tax records vs Social Security contributions. Tax records

9. Similar event-study results for workers aged 45 at most at the pre-displacement year. Aged 45

Explaining Differences in Employment

▶ Hazard rates and survival functions from non-employment for workers displaced in 2010:

 1. 20% of workers in Sweden, Denmark and France not able to find a job one year after displacement; 30%-40% in Italy and Spain, 60% in Portugal.
 2. Not convergence over time (15%-25% in Southern countries vs 5% in the rest).

▶ Similar pattern in hazard rates for those workers eventually finding a job within 5 year → Longer non-employment duration in the South.

▶ We quantify the importance of permanent displacement from labour market over the employment effect on 70%-80% in the South.

Figure 4: Share of workers displaced in 2010 who remain non-employed

(a) All displaced workers
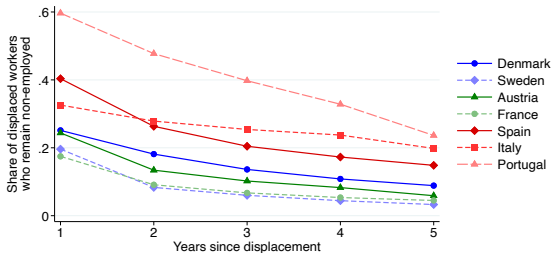
(b) Conditioning on re-employment
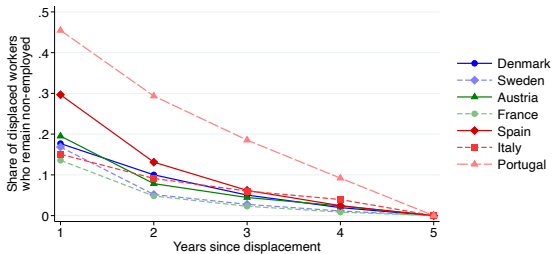
Figure 5: Permanent withdrawal from the labour market
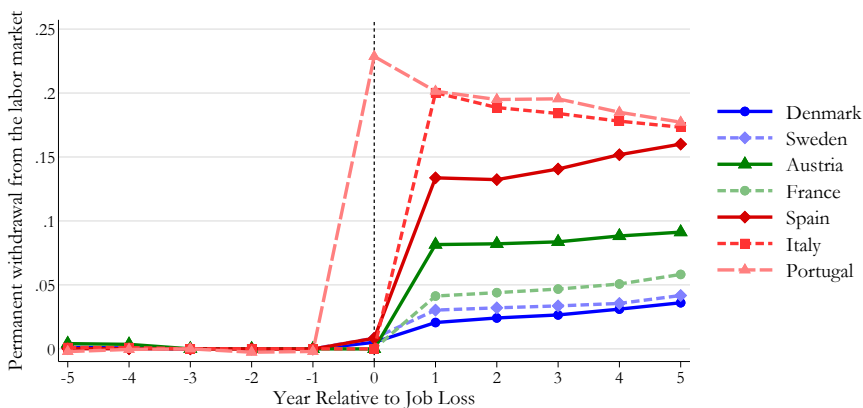
Notes: Event-study coefficient estimates of the indicator equal to 1 if worker i in year t is non-employed in t and in all the subsequent periods.

Contribution of employer characteristics: employer-specific pay premium

- Estimate employer pay premiums: $\psi_{J(i,t)}$ by AKM model (Abowd, Kramarz & Margolis, 1999) using Card, Heining and Kline (2013)

$$log Y_{ijt} = \alpha_i + \psi_{J(i,t)} + \theta_t + X'_{it}\beta + u_{ijt}$$

- $\psi_{J(i,t)}$: rents accrued with pre-displacement employer (unions, efficiency wages, rent-sharing, etc.) $\to$ job terminates $\to$ rents are gone, lower re-employment wages.

- Exclude displaced and matched counterfactual workers from AKM sample.

- Use estimated firm wage premium as dependent variable in the event study:

$$\widehat{\psi}_{ijt}^{log(Y)} = \alpha_i + \lambda_t + \sum_{k=-5}^{k=5} \gamma_k^{AKM} \mathbf{1}\{t = t_i^* + k\} + \sum_{k=-5}^{k=5} \theta_k^{AKM} \mathbf{1}\{t = t_i^* + k\} \times Displaced_i + X_{it}\beta + r_{it}$$

- Share of wage loss due to pay premium loss : $\dfrac{\theta_k^{AKM}}{\theta_k}$

Wages

Figure 6: The role of the employer-specific pay premium: explains at least 50% of the wage loss in most countries
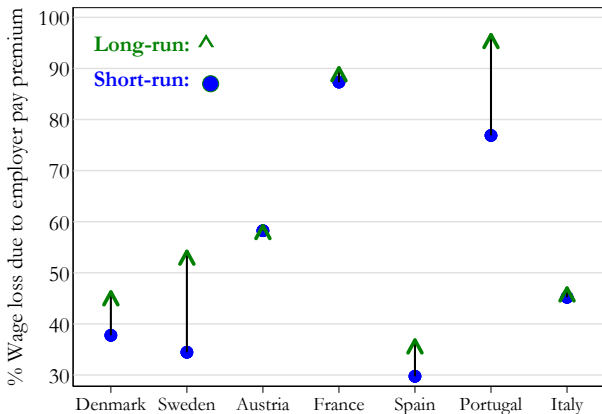
Notes: Estimates of the contribution of the employer-specific pay premium, $\frac{\theta_k^{AKM}}{\theta_k}$.
Short-run: average of estimates in $t^* + 2$ and $t^* + 3$; long-run: average of $t^* + 4$ and $t^* + 5$.

Conclusions

▶ Use of harmonized administrative data and identical sampling design in Austria, Denmark, France, Italy, Portugal, Spain and Sweden.

▶ Provide the first comparable estimates of the consequences of job loss across countries.

▶ Study the determinants of wage and earnings losses following worker displacement. Three main takeaways:

   1. Substantial heterogeneity across countries within Europe: Lowest losses (%10) in Nothern countries and highest (30%) in the South.
   2. Earnings losses driven by re-employment probabilities after job loss.
   3. A large share of wage losses explained by transitions to lower-paying firms.

▶ Earnings losses not equivalent to income nor consumption losses, but countries with the lowest earnings losses tend to have the most generous welfare states.

Thanks a lot for your attention!

Table 4: Earnings Effects with Alternative Control Groups

| | Earnings Effect in $t=+5$ | | Earnings Effect in $t=+1$ | |
	Baseline	Continuously employed	Baseline	Continuously employed
Austria	-0.211	-0.360	-0.389	-0.461
Denmark	-0.116	-0.253	-0.177	-0.255
France	-0.121	-0.255	-0.199	-0.253
Italy	-0.277	-0.772	-0.392	-0.635
Portugal	-0.243	-0.270	-0.344	-0.437
Spain	-0.325	-0.512	-0.457	-0.537
Sweden	-0.116	-0.171	-0.206	-0.233

Notes: The Continuously employed control group is similar to that in Lachowska et al (2020), i.e. workers who stay employed at the same establishment at which they had at least 3 years of pre-displacement tenure for the entirety of the post-period time window (up to 9 years in total).

Back

Figure 7: Long-run effects of job loss on total earnings in percentage by gender
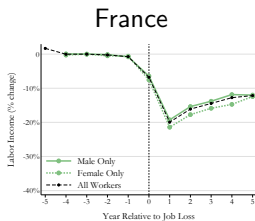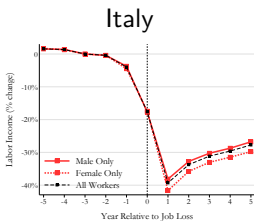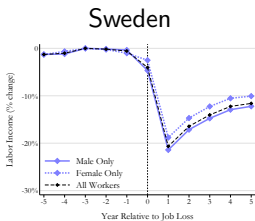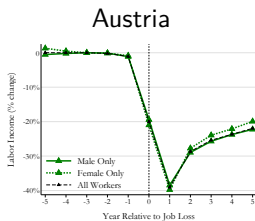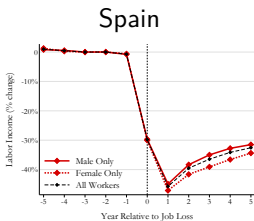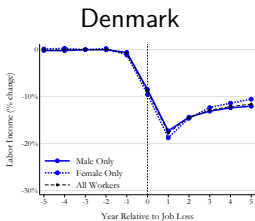
Figure 8: Long-run effects of job loss on total earnings (in %) in Portugal

Figure 9: Long-run effects of job loss on worked days
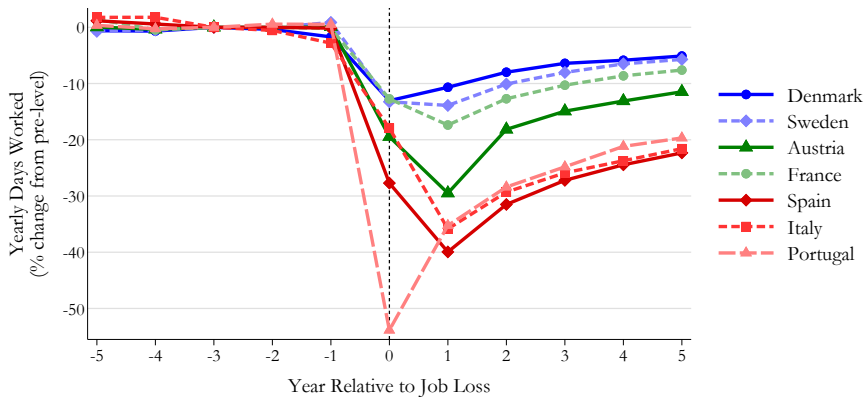
Figure 10: The impact of job loss on fixed-term contracts and full-time jobs in Spain

Figure 11: Trends in earnings losses: (i) Nordic countries

Denmark

Legend:
- 1 year post-displacement
- 5 years post-displacement

y-axis: Percent of Earnings Losses relative to Pre-Displacement Earnings
x-axis: Year of Displacement

Sweden

Legend:
- 1 year post-displacement
- 5 years post-displacement

y-axis: Percent of Earnings Losses relative to Pre-Displacement Earnings
x-axis: Year of Displacement
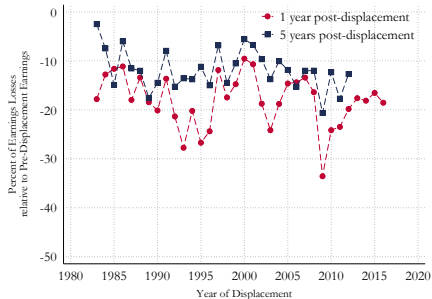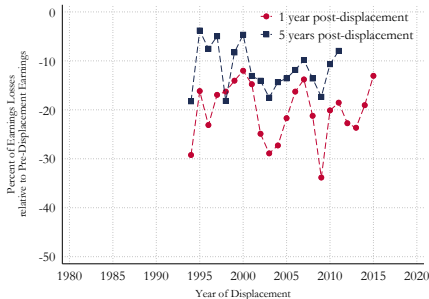
Back

Figure 11: Trends in earnings losses: (ii) Central Europe

France
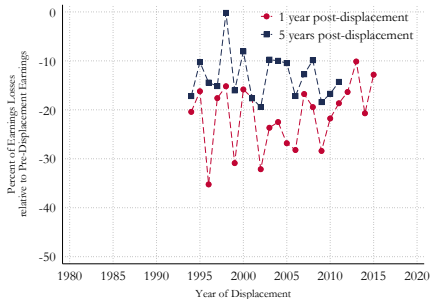
Austria
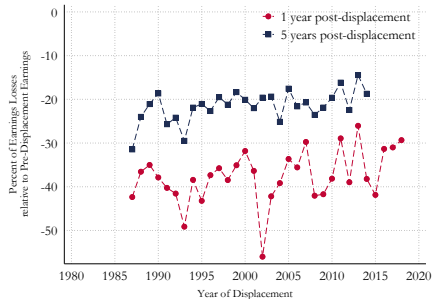
Figure 11: Trends in earnings losses: (iii) Southern countries

Italy
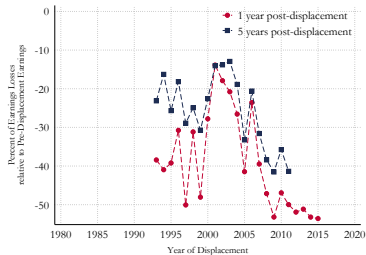
Portugal
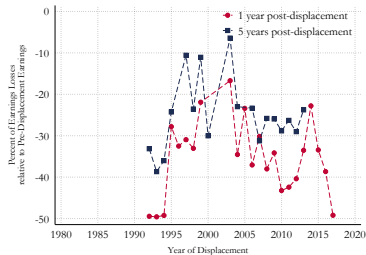
Back

Spain
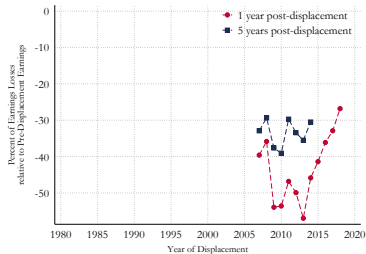
Figure 12: Total earnings losses by gender: (i) Nordic countries
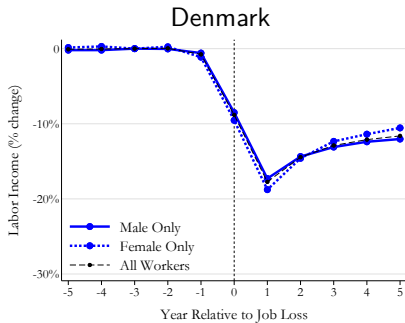
Figure 12: Total earnings losses by gender: (ii) Central Europe
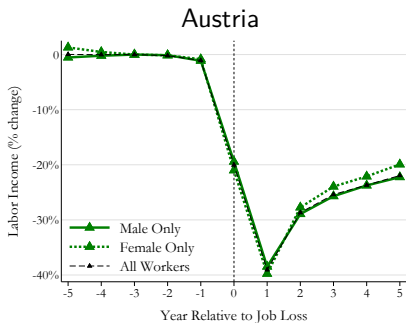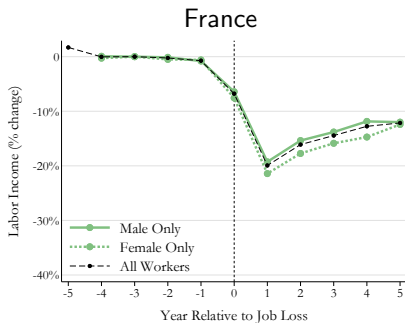
France

Austria

Back

Figure 12: Total earnings losses by gender: (iii) Southern countries
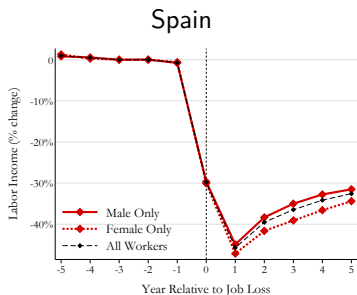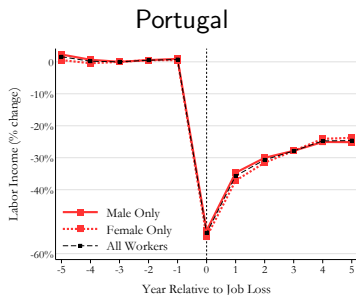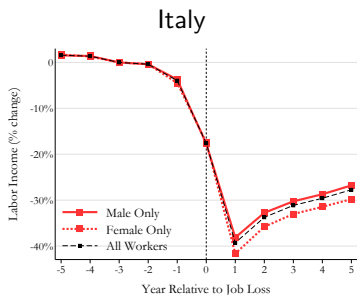
Table 5: Earnings losses by country and gender

	Denmark	Sweden	Austria	France	Italy	Spain	Portugal	Germany
Men:								
$k = 1$	-17.29	-21.42	-38.47	-19.26	-19.26	-44.90	-34.69	-22.24
$k = 5$	-12.03	-12.22	-22.24	-11.99	-11.99	-31.50	-25.12	-16.25
Women:								
$k = 1$	-18.77	-18.81	-39.77	-21.42	-41.65	-47.12	-37.16	-35.49
$k = 5$	-10.55	-10.07	-19.93	-12.42	-29.78	-34.38	-23.77	-22.35

Coefficient estimates of θ_1 and θ_5 from the event-study equation for earnings separately estimated by gender within each country. Point-estimates are re-scaled by the average earnings measured in the pre-displacement years and multiplied by 100.

Back

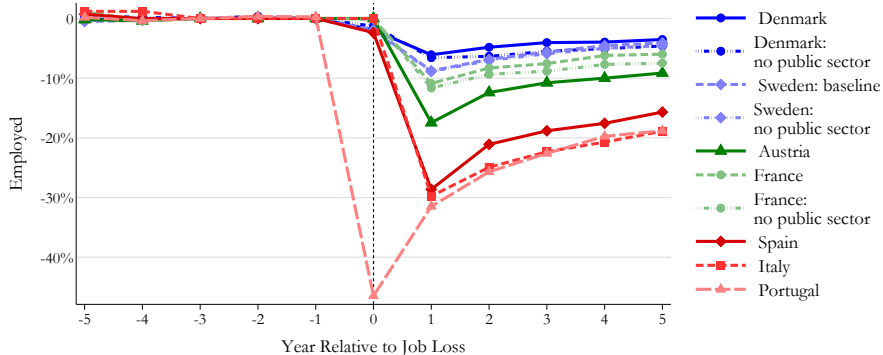Figure 13: Classifying self-employment as non-employment in Sweden
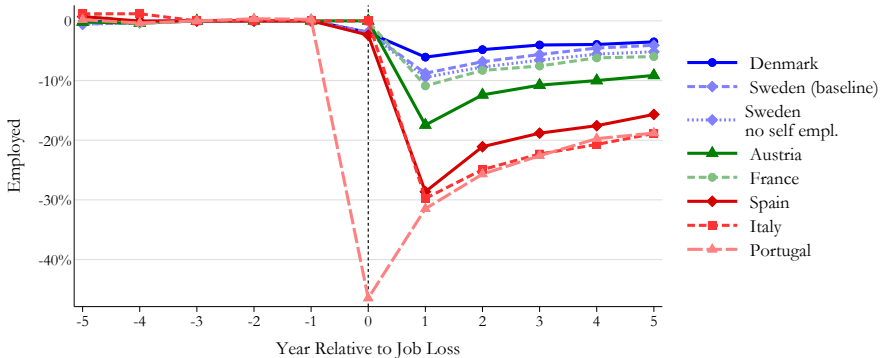
Figure 14: Classifying all public sector jobs as non-employment in Denmark, France and Sweden
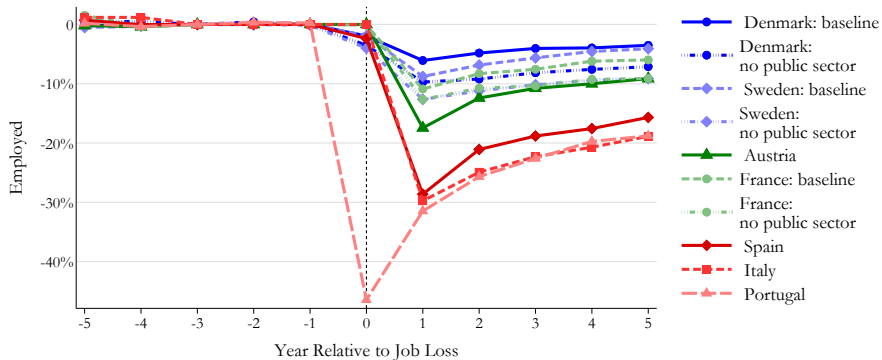
Figure 14: Classifying as non-employment those public sector jobs not covered in Southern European countries

Table 6: Bounds on Wage Losses Five Years after Displacement

	Employment effect	Share compliers among employed control workers	Mean wage treated	Mean wage control, excluding compliers	Bound on wage effect
	(1)	(2)	(3)	(4)	(5)
Denmark	-0.035	4%	4.761	4.878	-0.117
Sweden	-0.040	4%	4.400	4.579	-0.179
Austria	-0.091	10%	4.322	4.535	-0.212
France	-0.057	6%	4.343	4.471	-0.128
Spain	-0.156	18%	3.909	4.248	-0.339
Italy	-0.177	23%	4.354	4.623	-0.269
Portugal	-0.175	25%	3.881	4.156	-0.276

Differences in observed characteristics: Oaxaca-Blinder decomposition

- Compute the match diff-in-diff of outcome variable in a 3-year window around displacement.
  $$\Delta_{DiD} y_{ist^*} = (y_{i,T,t^*+3,s} - y_{i,T,t^*-3,s}) - (y_{i,C,t^*+3,s} - y_{i,C,t^*-3,s})$$

- Estimate the importance of observables $(\widehat{\beta}_s)$ on earnings losses *within* each country s between $t^* - 3$ and $t^* + 3$:

  $$\Delta_{DiD}^s y_{it^*} = X_{ist^*}\beta_s + \varepsilon_{ist^*}; \quad s = IT, \ DK \dots$$

  $X =$ Female, Tenure, age, size, economic sector, ΔU, year, quintiles of AKM worker and firm fixed effects

- Average job loss gap: $\Delta \equiv E[\Delta_{DiD}^{s} y_{it^*}] - E[\Delta_{DiD}^{r} y_{it^*}]$
  Reference country (r) = Denmark (DK).

- Oaxaca-Blinder decomposition:

$$\Delta = \sum_{x \in X} \underbrace{(E[x^s] - E[x^{DK}])\beta_x^s}_{Composition} + \sum_{x \in X} \underbrace{E[x^{DK}](\beta_x^s - \beta_x^{DK})}_{Unexplained}$$

- Composition: How much earnings an Italian $(s = IT)$ would lose after displacement compared to a Dane due to their different average characteristics?

- Unexplained: Are the characteristics rewarded differently across the two labor markets?

Table 7: Composition does not explain the large differences in earnings losses across countries:

	Overall gap	Composition part					Unexplained part
		Worker	Employer	Business cycle	Time trend	Total	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sweden	-0.011	-0.049	-0.003	-0.000	-0.000	-0.053	0.042
Austria	-0.098	-0.025	-0.052	-0.001	-0.003	-0.081	-0.017
France	-0.009	-0.020	-0.013	0.001	0.002	-0.030	0.021
Italy	**-0.166**	0.023	-0.012	0.003	-0.005	**0.009**	-0.173
Spain	-0.207	-0.030	0.019	-0.000	-0.000	-0.011	-0.195
Portugal	-0.145	-0.022	-0.002	-0.011	0.002	-0.032	-0.113

Notes: Oaxaca-Blinder decompositions of earnings losses relative to pre-displacement level three year after job displacement conditional on workers being re-employed, by comparing separately each country with Denmark.

Table 7: Composition does not explain the large differences in earnings losses across countries:

	Overall gap	Composition part					Unexplained part
		Worker	Employer	Business cycle	Time trend	Total	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sweden	-0.011	-0.049	-0.003	-0.000	-0.000	-0.053	0.042
Austria	-0.098	-0.025	-0.052	-0.001	-0.003	-0.081	-0.017
France	-0.009	-0.020	-0.013	0.001	0.002	-0.030	0.021
Italy	**-0.166**	0.023	-0.012	0.003	-0.005	**0.009**	-0.173
Spain	-0.207	-0.030	0.019	-0.000	-0.000	-0.011	-0.195
Portugal	-0.145	-0.022	-0.002	-0.011	0.002	-0.032	-0.113

Notes: Oaxaca-Blinder decompositions of earnings losses relative to pre-displacement level three year after job displacement conditional on workers being re-employed, by comparing separately each country with Denmark.

⇒ Δ Italy - Denmark: out of a total 17% job loss gap, only 1% is explained by compositional differences Back

Table 8: Oaxaca-Blinder decomposition estimates of wage losses in log across countries:

	Overall gap		Composition part				Unexplained part
		Worker	Employer	Business cycle	Time trend	Total	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Sweden	-0.044	-0.027	0.001	-0.000	-0.000	-0.026	-0.019
Austria	-0.074	-0.004	-0.042	-0.000	-0.005	-0.052	-0.023
France	-0.006	-0.035	-0.009	0.002	0.004	-0.038	0.033
Italy	-0.010	-0.002	-0.004	0.001	-0.007	-0.012	-0.000
Spain	-0.112	-0.005	0.023	-0.006	-0.007	0.005	-0.117
Portugal	0.023	0.009	-0.009	-0.006	-0.000	-0.006	0.029

Notes: Oaxaca-Blinder decompositions of wages losses three year after job displacement conditional on workers being re-employed, by comparing separately each country with Denmark.

Figure 15: Differences in earnings losses due to alternative definitions of mass layoffs

(a) Spain
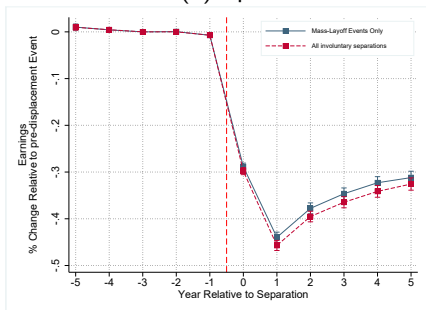
(b) Italy
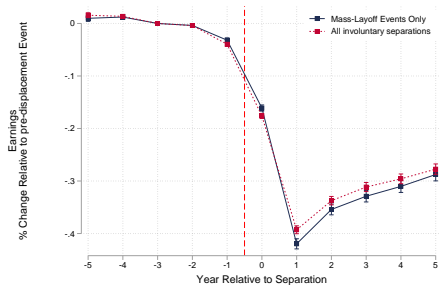
Back

Figure 16: Differences in earnings losses using earnings from tax records in Spain.

Earnings losses in euro

Figure 16: Differences in earnings losses using earnings from tax records in Spain (Contd.).
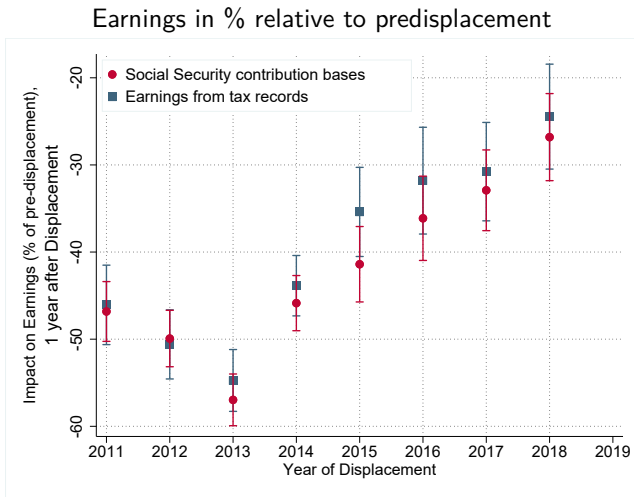
Earnings in % relative to predisplacement

Earnings losses in euro

Average in 5 years prior to mass-layoff:
Taxable earnings 22875.6; SS contribution bases 21535.9

Figure 17: Long-run impacts of job loss using earnings from tax records in Spain (ii)

Daily wages in log

Figure 17: Long-run impacts of job loss using earnings from tax records in Spain (iii)

Employment

Worked days

Figure 18: Differences in earnings losses by the limit age of workers.

Earnings losses in euro

Figure 18: Differences in earnings losses by the limit age of workers (Contd.).

Earnings in % relative to predisplacement

Earnings losses in %

Figure 19: Long-run impacts of job loss by limit age of workers (ii)

Daily wages in log

Average in 5 years prior to mass-layoff:
Aged under 45 at predisplacement year: 4; Under 50: 4

Aged under 45 at pre-layoff year ⸻ Aged under 50
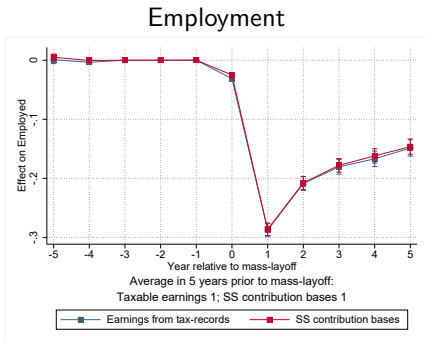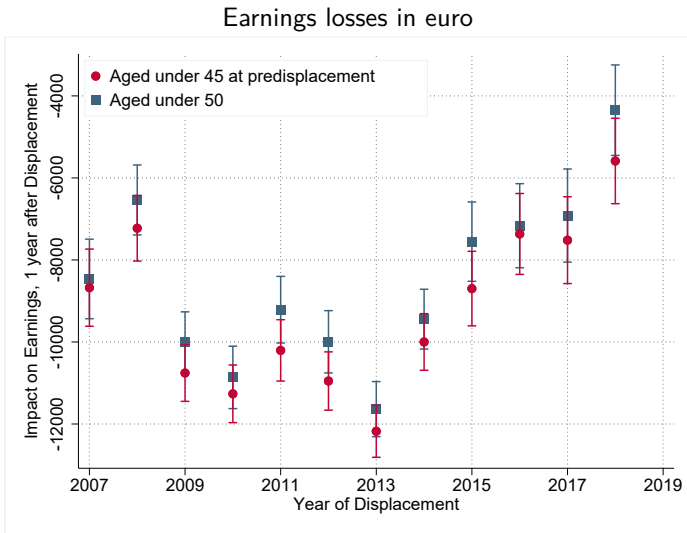
Back

Figure 19: Long-run impacts of job loss by limit age of workers (iii)

Employment
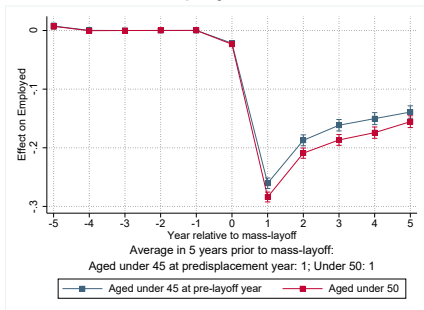
Worked days
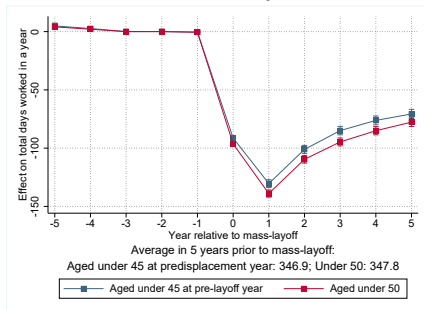
Table 9: Loss of employer-specific wage premiums five years after job displacement

		Daily wage (in logarithm)				
		Loss of employer pay premium (1)		Total job loss effect (2)		Ratio (3)
Denmark	$t = 5$	-0.018	(0.001)	-0.039	(0.002)	0.46
Sweden	$t = 5$	-0.029	(0.001)	-0.055	(0.004)	0.52
Austria	$t = 5$	-0.064	(0.001)	-0.112	(0.002)	0.57
France	$t = 5$	-0.030	(0.002)	-0.044	(0.004)	0.68
Italy	$t = 5$	-0.027	(0.002)	-0.057	(0.003)	0.47
Spain	$t = 5$	-0.046	(0.003)	-0.130	(0.006)	0.35
Portugal	$t = 5$	-0.044	(0.001)	-0.045	(0.002)	0.98

Notes: Standard errors in parentheses.
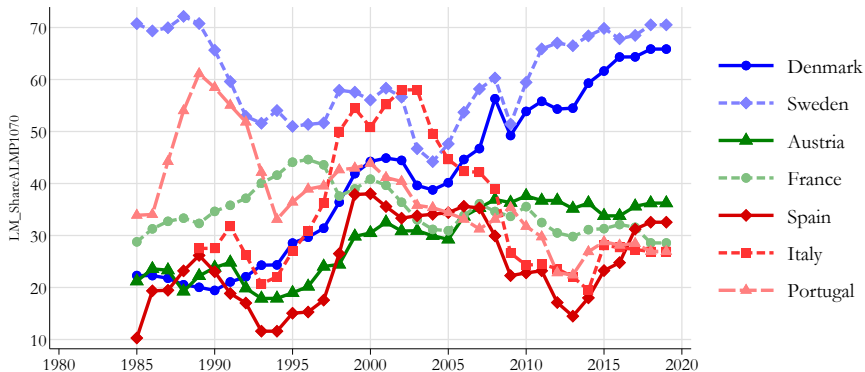
Back

Figure 20: Distribution of displaced workers across quintiles of firm effects before job displacement

Distribution of displaced workers across quintiles of firm effects

Q1   Q2   Q3   Q4   Q5
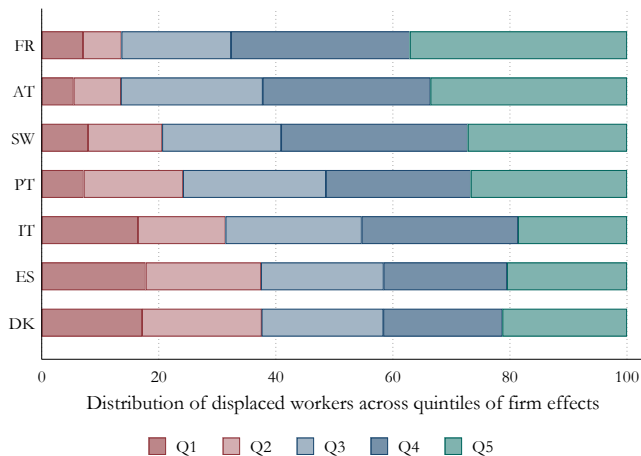
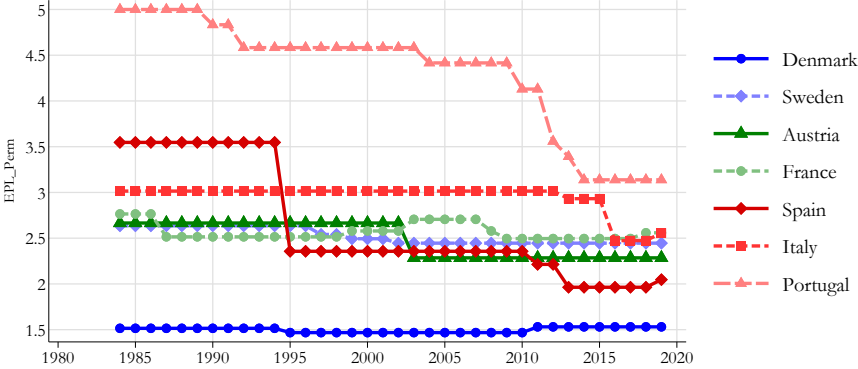Back

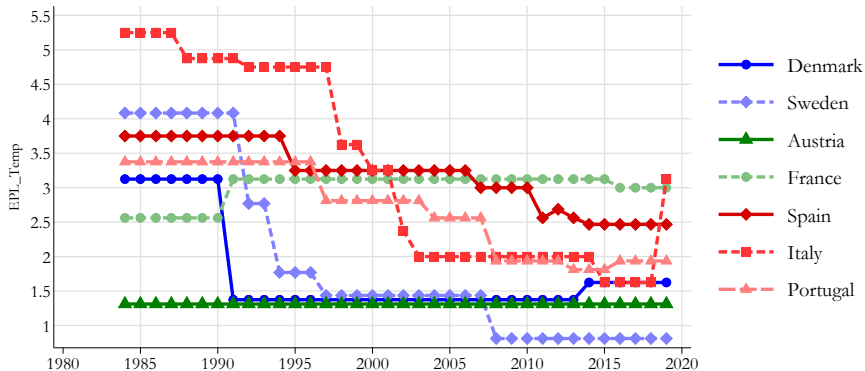Figure 21: Evolution of the expenditures on Active Labour Market Policies (ALMP) by country

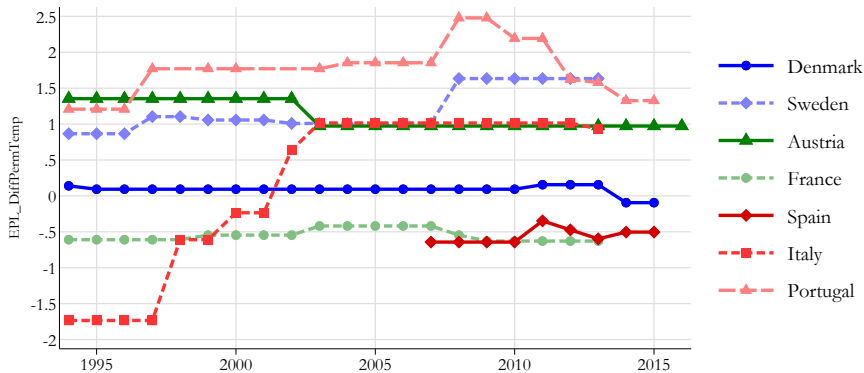Figure 22: Evolution of the employment protection of workers under an open-ended contract by country

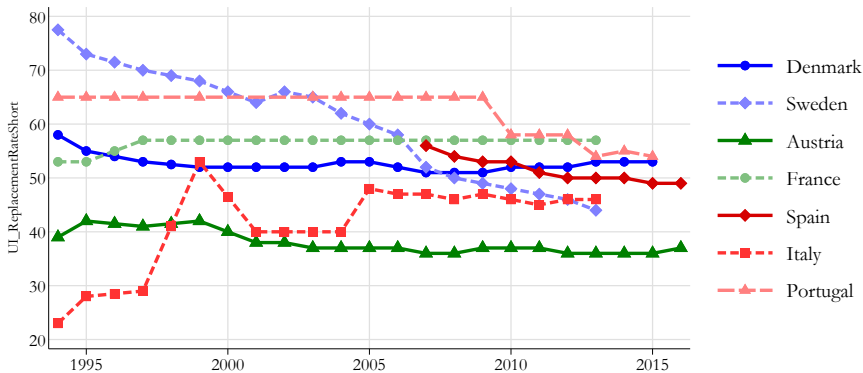Figure 23: Evolution of the employment protection of workers under a fixed-term contract by country

Figure 24: Evolution of the difference in the employment protection of workers across job contracts: open-ended vs fixed-term contracts
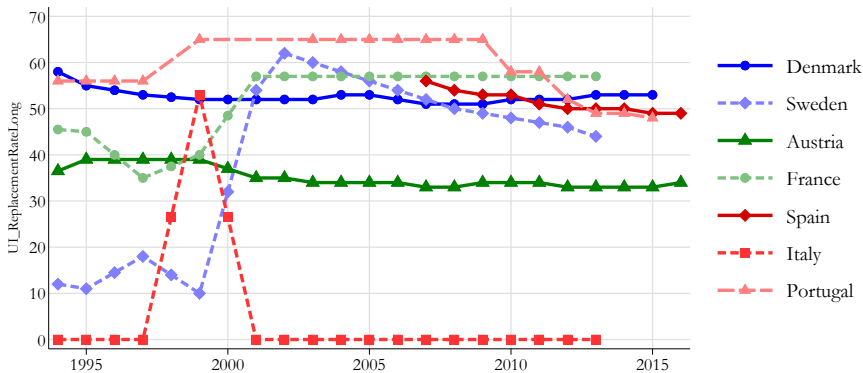
Figure 25: Evolution of the unemployment insurance replacement rate in the short-run

Figure 26: Evolution of the unemployment insurance replacement rate in the long-run