Online Appendix

The Politics of Stashing Wealth: The decline of labor power and the global rise in corporate savings

Nils Redeker, Hertie School

redeker@delorscentre.eu

A Supplementary Material Cross-National Study

A.1 Construction Corporate Net-Saving Data at the Country Level

I obtain data on corporate savings at the county level from Chen, Karabarbounis and Neiman (2017), who base their calculations on information from national accounts provided by the United Nations and the OECD. These accounts divide the economy into the corporate sector, the household sector and the government sector. For all the countries considered in this study, national accounts allow to further disaggregate the corporate sector into a financial and a non-financial sector.

Corporate net saving positions can be calculated based on a couple of accounting identities that serve as the backbone of these national accounts. First, in these accounts the value of the final production in a country is called the gross-value added (GVA), which equals the national GDP less net taxed on products. GVA is detailed in the generation of income account and equals the sum of income paid to capital, labor, and taxes:

$$GVA = Gross\ Operating\ Surplus\ (GOS) + Compensation\ to\ Labor + Net\ Taxes\ Production \tag{A.1}$$

In this equation, GOS captures the income available to corporations after paying for labor and subtracting taxes and adding subsidies associated with production. The GOS can then be further disaggregated into gross saving, dividends, and other payments to capital such as taxes on profits, interest payments, reinvested foreign earnings, and other transfers:

$$\begin{aligned} GOS = Gross\ Saving\ (GS) + Net\ Dividends + Taxes\ on\ Profits \\ + Interests\ - Reinvested\ Earnings\ on\ FDI. \end{aligned} \tag{A.2}$$

Finally, the gross saving of the corporate sector at the national level can be further decomposed through the capital account identity:

$$\begin{aligned} GS = Net\ Lending\ (NL) + Gross\ Fixed\ Capital\ Formation + Changes\ in\ Inventories \\ + Changes\ in\ Other\ Non\ Financial\ Produced\ Assets + Net\ Capital\ Transfer. \end{aligned} \tag{A.3}$$

In the paper, I follow Chen, Karabarbounis and Neiman (2017) in defining my final measure of corporate savings as Gross Savings subtracted by Gross Fixed Capital Formation, i.e. as the excess of gross savings over investment spending. As evident from the identity above, this definition slightly differs from the identities in the national accounts. However, since the remaining items are small and stable over time, this measure of corporate savings comes very close to the that in the national accounts (Chen, Karabarbounis and Neiman, 2017).

A.2 Multiple Imputation for TSCS Analysis

To avoid any biases that might result from missing values in my time-series cross-country analysis, I use multiple imputation. The core idea of multiple imputation models is that any case in a sample can be replaced by a new randomly chosen case from the same source population (Donders et al. 2006). Thus, in the case of a missing value in a variable this missing is replaced by a value drawn from an estimate of the distribution of this variable. This process is then called imputation. In the case of multiple imputation, not only a single estimate is used to replace the missing, but various estimates are used. This method is superior to more ad-hoc measures of dealing with missings such as pairwise deletion, if missings are not completely at random, i.e. if probability that a given value is missing does (at least partially) depend on information in the dataset (Honaker and King, 2010). As multiple studies have shown, this is the case for many political science datasets and especially for the macroeconomic and macro-political variables I use in my analysis (Cranmer and Gill, 2013; Lall, 2016).[24]

TABLE A.1: Chain length of imputations

Imputation 1	64
Imputation 2	68
Imputation 3	50
Imputation 4	63
Imputation 5	63

[24] To improve the numerical stability of the algorithm, I shrink the covariance of the variables in the model by including a positive rigid prior I also include a positive rigid prior as described in Honaker, King and Blackwell (2011).

To impute the data, I follow the procedure described in Honaker, King and Blackwell (2011). For choosing the number of imputations, I use the average missing-data rate of the variables in the model (Lall, 2016) which in my data set is five. In the imputation model, I include all variables in the subsequent analysis and add a number of variables that have few missing values and that are likely to be correlated with the covariates such as unemployment, capital and trade openness, fiscal deficits and the share of high-tech exports. Given the tscs structure of my data, my imputation model also makes use of lags and leads of the key variables (Honaker and King, 2010).

To give a better idea of the fit of the imputation model, Figure A.1 shows overimputed values of trade union density. Overimputing treats observed values of a variable as if they had been missing. For each observed value, several hundred imputed values of that observed value are generated using the imputation algorithm. Figure A.1 plots the estimation of each observation against its true value as well as 90 % confidence intervals. For a good fit, around ninety percent of these confidence intervals should contain the y = x line. The color of the lines represents the fraction of missing observations in the pattern of missingness for that observation (e.g. blue=0-2 missing entries).

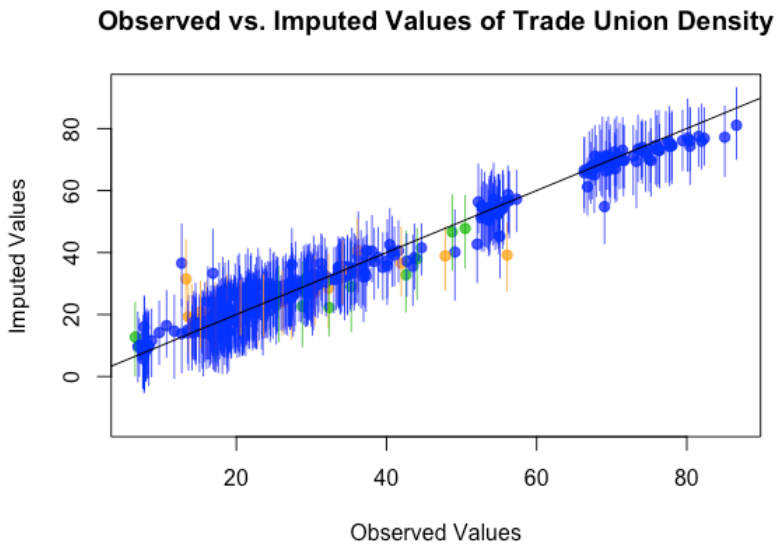


FIGURE A.1: Overimputed values of trade union density.

A.3 Descriptives & Summary Statistics

TABLE A.2

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Corporate Net Lending (% GDP)	474	−0.204	3.694	−11.146	−2.628	2.295	9.450
Trade Union Density	451	32.067	19.627	6.531	18.377	39.206	86.621
Employment Protection	448	2.202	0.816	0.257	1.702	2.679	4.583
RTI Score	448	12.528	0.894	6.792	12.130	12.988	14.470
FDI out (Real GDP Growth	474	2.232	2.799	−14.260	1.120	3.878	11.909
Real Interests	446	2.629	2.179	−3.568	1.415	3.665	20.996
Stock Market Capitalization	358	70.813	53.139	1.194	32.000	96.276	291.657
Old Age Dep.	436	23.956	3.588	16.838	21.921	25.985	40.365
Corporate Income Tax	426	30.548	7.391	16.000	25.500	35.000	56.799
Bargaining Coverage	295	59.132	27.650	11.924	34.326	83.000	100.000

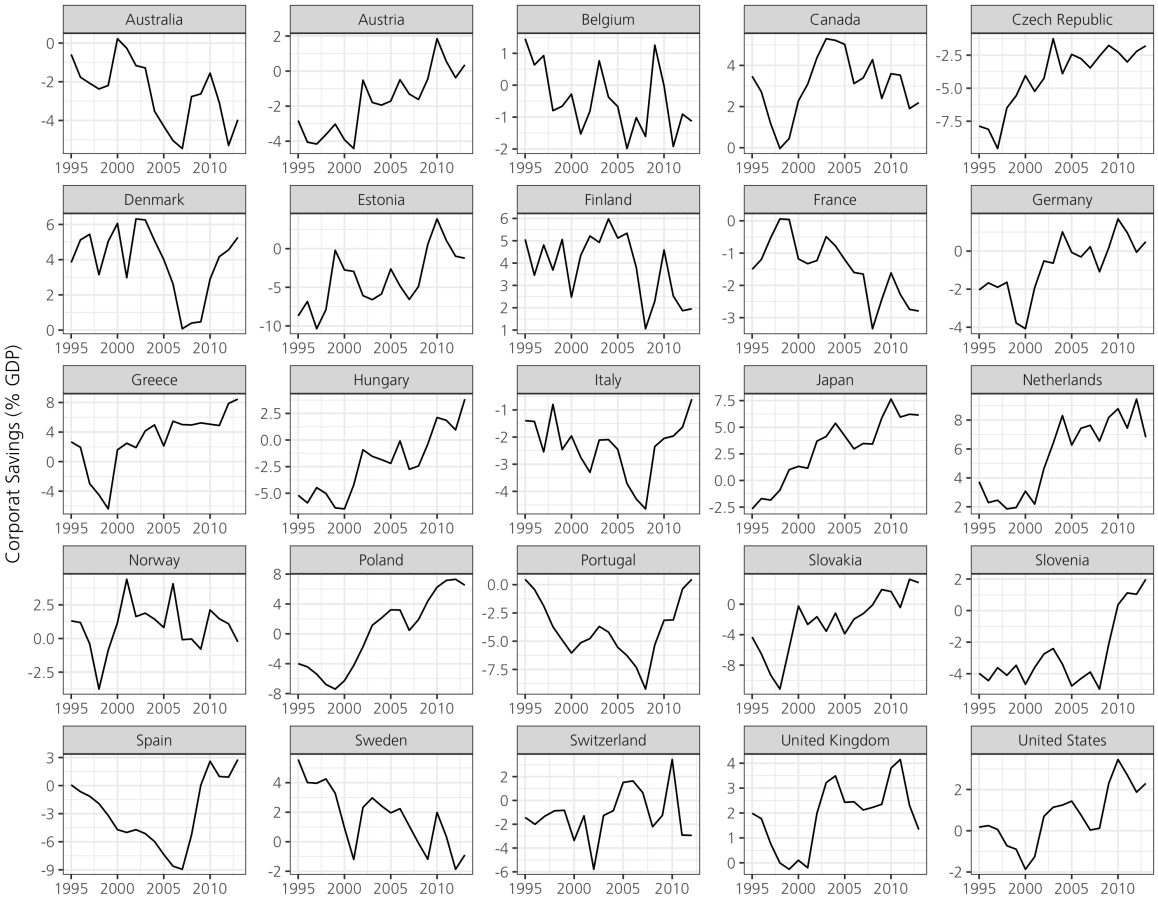


FIGURE A.2: Development of Corporate Savings Across Countries

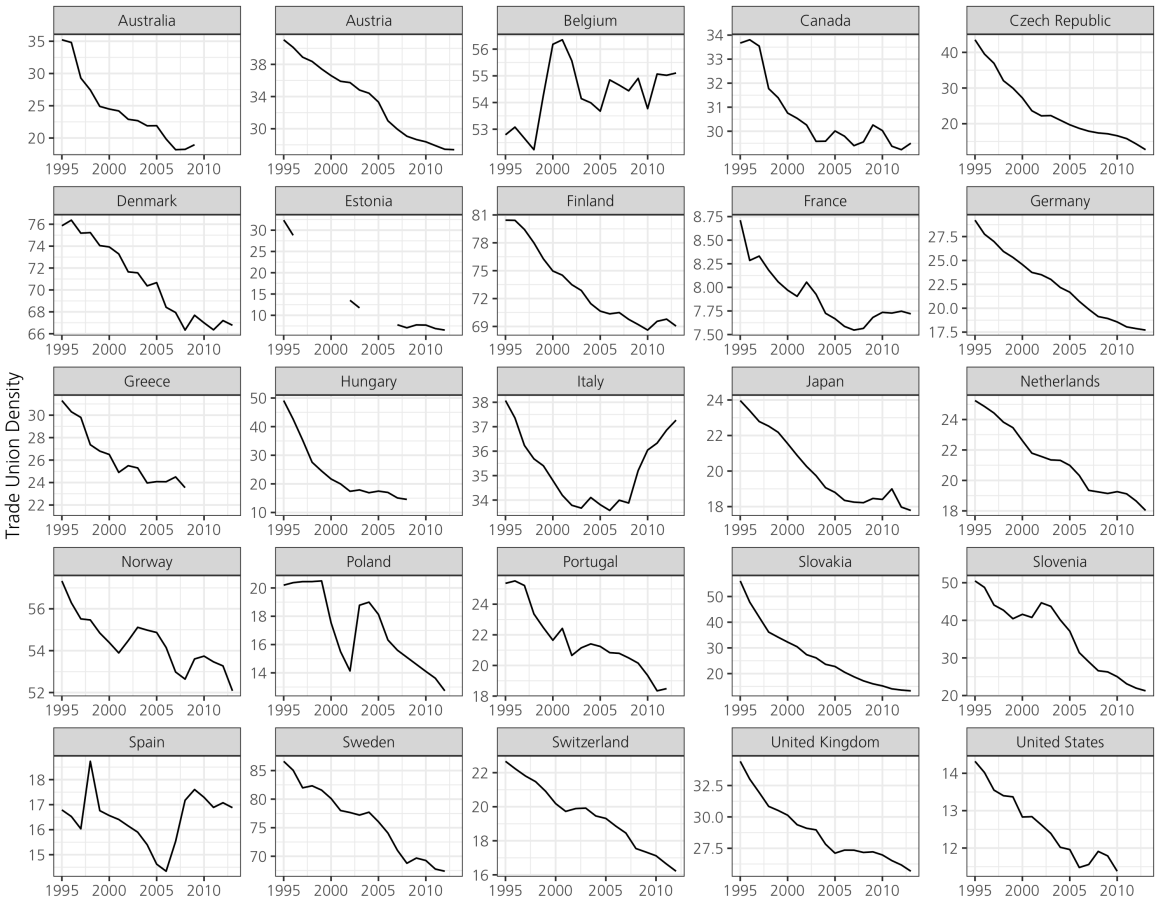


FIGURE A.3: Development of Trade Union Density Across Countries

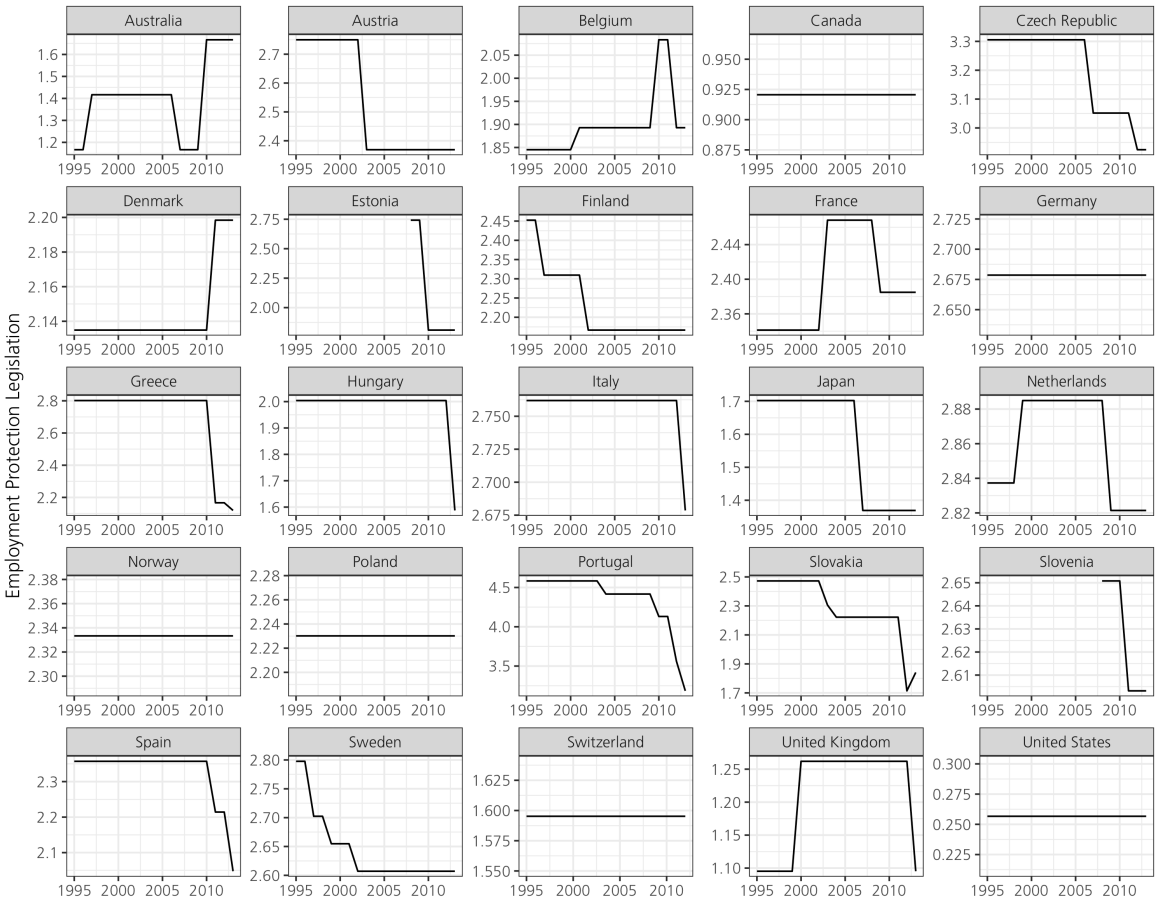


FIGURE A.4: Development of Employment Protection Legislation Indicator Across Countries

A.4 TSCS Analysis: Association Between Trade Union Density and Employment Protection Legislation

TABLE A.3: Higher Trade Union Density is associated with Stronger Employment Protection Legislation

	Dependent variable:		
	Employment Protection Legislation Index		
	(1)	(2)	(3)
Trade Union Density	0.008***	0.009***	0.004***
	(0.002)	(0.002)	(0.001)
RTI Score		0.011	−0.003
		(0.008)	(0.008)
FDI out (% GDP)		0.0002	0.0002
		(0.001)	(0.0004)
Real GDP Growth		−0.011***	−0.002
		(0.004)	(0.002)
Real Interests		−0.014***	−0.009***
		(0.004)	(0.003)
Stock Capital.		0.0001	0.0001
		(0.0002)	(0.0001)
Old Age Dep.		−0.015***	−0.009***
		(0.005)	(0.003)
Corp. Income Tax		0.0004	−0.001
		(0.002)	(0.001)
Employment Protection Lag			−0.002
			(0.001)
Trade Union Density Lag			0.812***
			(0.077)
Country-Fixed Effects	✓	✓	✓
Year-Fixed Effects	×	✓	×
Observations	474	474	474
R^2	0.973	0.981	0.990
Adjusted R^2	0.972	0.979	0.989
Residual Std. Error	0.134 (df = 448)	0.116 (df = 423)	0.082 (df = 439)
F Statistic	652.715*** (df = 25; 448)	444.154*** (df = 50; 423)	1,309.196*** (df = 34; 439)
Note:			*p<0.1; **p<0.05; ***p<0.01

A.5 TSCS Analysis: Period Averages

TABLE A.4: Trade Union Density and Corporate Savings - 5 Year Period Averages

	Dependent variable:			
	Corporate Net Lending (% GDP)			
	(1)	(2)	(3)	(4)
Trade Union Density	−0.233***	−0.202***		
	(0.045)	(0.067)		
Employment Protection			−7.795***	−4.900**
			(0.045)	(2.179)
RTI Score		−1.191		−0.686
		(0.808)		(0.837)
FDI out (% GDP)		0.069		0.044
		(0.052)		(0.052)
Real GDP Growth		0.086		−0.039
		(0.228)		(0.193)
Real Interests		0.328*		−0.027
		(0.194)		(0.153)
Stock Capital.		−0.002		−0.001
		(0.018)		(0.020)
Old Age Dep.		−0.142		0.009
		(0.207)		(0.193)
Corp. Income Tax		−0.143*		−0.159**
		(0.077)		(0.080)
Country Fixed Effects	✓	✓	✓	✓
Year Fixe Effects	×	×	×	✓
Observations	100	100	100	100
R^2	0.728	0.804	0.709	0.789
Adjusted R^2	0.636	0.697	0.610	0.674
Residual Std. Error	2.073 (df = 74)	1.892 (df = 64)	2.145 (df = 74)	1.963 (df = 64)
F Statistic	7.920*** (df = 25; 74)	7.497*** (df = 35; 64)	7.202*** (df = 25; 74)	6.838*** (df = 35; 64)

Note: *p<0.1; **p<0.05; ***p<0.01

TABLE A.5: Trade Union Density and Corporate Savings - 3 Year Period Averages

	Dependent variable:			
	Corporate Net Lending (% GDP)			
	(1)	(2)	(3)	(4)
Trade Union Density	−0.204***	−0.181***		
	(0.035)	(0.046)		
Employment Protection			−6.993***	−4.713***
			(0.035)	(1.214)
RTI Score		−0.868*		−0.537
		(0.526)		(0.545)
FDI out (% GDP)		0.061**		0.035
		(0.031)		(0.033)
Real GDP Growth		0.164		0.032
		(0.135)		(0.118)
Real Interests		0.491***		0.104
		(0.123)		(0.106)
Stock Capital.		−0.005		−0.005
		(0.011)		(0.013)
Old Age Dep.		−0.062		0.035
		(0.133)		(0.122)
Corp. Income Tax		−0.126**		−0.185***
		(0.052)		(0.053)
Country Fixed Effects	✓	✓	✓	✓
Year Fixe Effects	×	×	×	✓
Observations	174	174	100	174
R^2	0.667	0.782	0.709	0.769
Adjusted R^2	0.610	0.721	0.610	0.704
Residual Std. Error	2.197 (df = 148)	1.860 (df = 135)	2.145 (df = 74)	1.914 (df = 135)
F Statistic	11.845*** (df = 25; 148)	12.750*** (df = 38; 135)	7.202*** (df = 25; 74)	11.846*** (df = 38; 135)
Note:				*p<0.1; **p<0.05; ***p<0.01

A.6 TCSC Analysis: Bargaining Coverage as an Alternative Measure of Labor Power

TABLE A.6: Higher Bargaining Coverage is associated with lower Corporate Savings

	Dependent variable:		
	Corporate Savings (percent of GDP)		
	(1)	(2)	(3)
Bargaining Coverage	−0.080***	−0.049***	−0.088***
	(0.022)	(0.019)	(0.022)
RTI Score		−0.101	−0.370**
		(0.132)	(0.169)
FDI out (% GDP)		−0.016	0.040**
		(0.013)	(0.017)
Real GDP Growth		0.043	0.006
		(0.049)	(0.067)
Real Interests		0.102*	0.137**
		(0.061)	(0.066)
Stock Capital.		−0.002	0.005
		(0.004)	(0.005)
Old Age Dep.		0.279***	−0.002
		(0.086)	(0.059)
Corp. Income Tax		−0.128***	−0.144***
		(0.036)	(0.028)
Country Fixed Effects	✓	✓	✓
Year-Fixe Effects	×	×	✓
Observations	474	474	474
R^2	0.589	0.658	0.696
Adjusted R^2	0.567	0.633	0.660
Residual Std. Error	2.432 (df = 448)	2.236 (df = 441)	2.154 (df = 423)
F Statistic	25.728*** (df = 25; 448)	26.550*** (df = 32; 441)	19.345*** (df = 50; 423)

Note: *p<0.1; **p<0.05; ***p<0.01

Bargaining coverage measures the share of employees covered by collective (wage) bargaining agreements as a proportion of all wage and salary earners in employment, adjusted for the possibility that some sectors are excluded from the right to bargain (Visser, 2015). Higher values of bargaining coverge, thus, indicate higher levels of labor power. Models are based on a Prais-Winsten transformation and show panel corrected standard errors.

B Supplementary Material RDD Germany

B.1 Calculating Firm-Level Corporate Savings

To calculate corporate savings based on information on Compustat, I proceed in three steps. First, a firm's gross operating surplus (GOS) equals total sales less operating expenses plus depreciation and expenses for research and development (R&D):

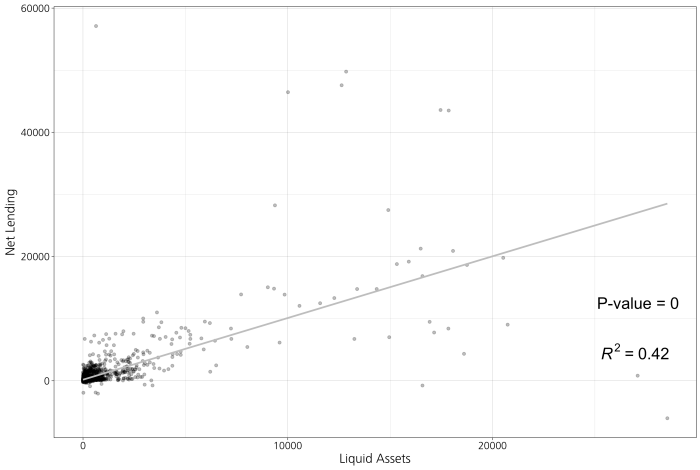
$$GOS_{f,t} = Sales_{f,t} - Operating\ Expenses_{f,t} + Depreciation_{f,t} + R\&D_{f,t} \tag{B.1}$$

Gross savings (GS) at the firm level can then be calculated by removing expenses for interests, corporate taxes and dividends from my measure of GOS.

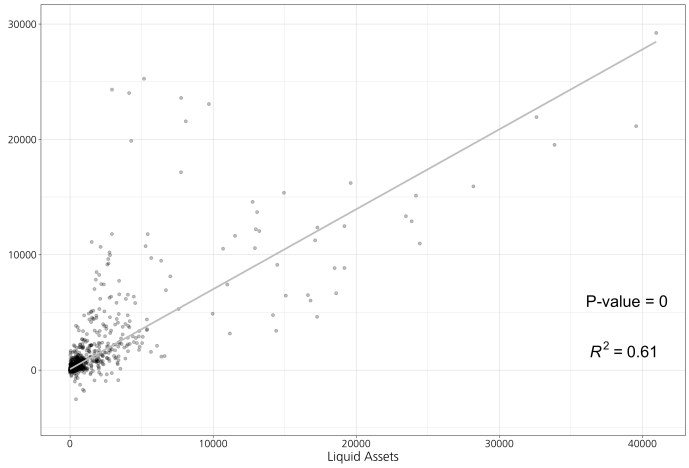
$$GS_{f,t} = GOS_{f,t} - Corporate\ Taxes_{f,t} - Interests_{f,t} - Dividends_{f,t} \tag{B.2}$$

Finally, net saving is defined as the excess of gross savings over investment. Investment equals fixed capital formation (FCF) at the firm level and can be obtained by calculating expenses for acquisitions less income from sale and disposals of property, plant, and equipment, plus R&D expenditure. I thus am able to construct a firm's net lending (NL), i.e. its net savings by calculating:

$$NL_{f,t} = GS_{f,t} - Acquisitions_{f,t} - R\&D_{f,t} + Sale\ of\ PPE\ Gains_{f,t} \tag{B.3}$$



(A) 1990 - 2000: Cash holding and Net Savings



(B) 2008 - 2015: Cash holding and Net Savings

FIGURE B.5: Cash holding and Net Savings

B.2 RDD: Identifying Assumptions

TABLE B.1: Falsification tests: effect of parity co-determination on pre-treatment covariates

RD Falsification Test - Covariate Balance			
Outcome: Pre-treatment Covaraites			
	Estimate	95% CI	p-value
Ownership Concentration (Share Largest)	14.94716	[−36.219, 66.114]	0.567
Ownership Concentration (Mean Share 5 Largest)	−0.0790	[−29.320, 29.161]	0.996
Single Owner Dummy	−0.0299	[−0.757, 0.697]	0.936
Manufacturing Dummy	0.039	[−0.245, 0.323]	0.787
Service Dummy	−0.056	[−0.322, 0.269]	0.606
Tech & Transport Dummy	−0.085	[−0.200, 0.125]	0.652
Trade Dummy	−0.063	[−0.285, 0.115]	0.403
Year	2.253,	[−1.787, 6.293]	0.274

Columns 1-3 list the RDD estimate, confidence intervals and p-values of the pre-treatment covariate listed on the left at the cutoff of 2000 employees. All estimates are calculated with MSE-optimal bandwidths.

B.3 RDD Robustness Checks

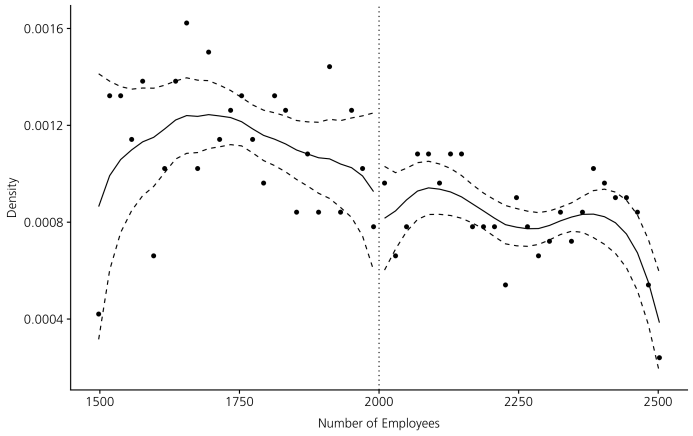


FIGURE B.6: McCrary Density Test Plot

TABLE B.2: The effect of labour parity co-determination on firm-level cash-holdings

	RD Effect of Parity-Codeterminaiton on Corproate Savnigs Robustness Excluding Firms with Foreign Subsidiaries				
	Outcome: Corporate Savings				
	Estimate	95% CI	p-value	controls	clustered SE
Parity Co-determination	−62.708	[−108.550 , −16.867]	0.007	No	No
Parity Co-determination	−66.444	[−109.425, −23.134]	0.003	Yes	No
Parity Co-determination	−66.357	[−110.273, −22.440]	0.003	Yes	Yes

The dependent variable of all models are firm-year observations of corporate savings, measured as the sum of cash holdings and short-term investments (in millions). Estimate is the bias-corrected average treatment effect at the cutoff of 2000 estimated with local linear regression with triangular kernel and a common MSE-optimal bandwidth of 176 employees at each side of the cutoff. Controls include fixed effects for years and sectors (manufacturing, service, trade and IT). Clustered standard errors cluster at the individual firm level.

TABLE B.3: The effect of labour parity co-determination on firm-level cash-holdings

	RD Effect of Parity-Codeterminaiton on Corproate Savnigs Robustness for different Measures of Corporate Savings					
	Outcome: Corporate Savings					
	Estimate	95% CI	p-value	bandwidth	controls	clustered SE
Logged cash	−0.936	[−1.726 , −0.1460]	0.020	129	Yes	No
Logged cash	−0.937	[−1.788 , 0.087]	0.031	131	Yes	Yes
Savings (share total assets)	−0.042	[−0.083, −0.002]	0.040	147	Yes	No
Savings (share total assets)	−0.042	[−0.083, 0.001]	0.0439	146	Yes	Yes

The dependent variable of all models are firm-year observations of corporate savings, measured as the sum of cash holdings and short-term investments (in millions). Estimate is the bias-corrected average treatment effect at the cutoff of 2000 estimated with local linear regression with triangular kernel and a common MSE-optimal bandwidth. Controls include fixed effects for years and sectors (manufacturing, service, trade and IT). Clustered standard errors cluster at the firm level.

TABLE B.4: The effect of labour parity co-determination on firm-level cash-holdings

	RD Effect of Parity-Codeterminaiton on Corproate Savnigs per Worker				
		Robustness for Savings per Workers			
	Estimate	95% CI	p-value	controls	clustered SE
(1) Parity Co-determination	−0.024	[−0.044, −0.006]	0.022	No	No
(2) Parity Co-determination	−0.026	[−0.045, −0.007]	0.006	Yes	No
(3) Parity Co-determination	−0.025	[−0.045, −0.005]	0.012	Yes	Yes

The dependent variable of all models are firm-year observations of corporate savings, measured as the sum of cash holdings and short-term investments (in millions) per worker. Estimate is the bias-corrected average treatment effect at the cutoff of 2000 estimated with local linear regression with triangular kernel and a common MSE-optimal bandwidth of 180 employees at each side of the cutoff. Controls include fixed effects for years and sectors (manufacturing, service, trade and IT) and different measures of ownership concentration. Clustered standard errors cluster at the individual firm level.

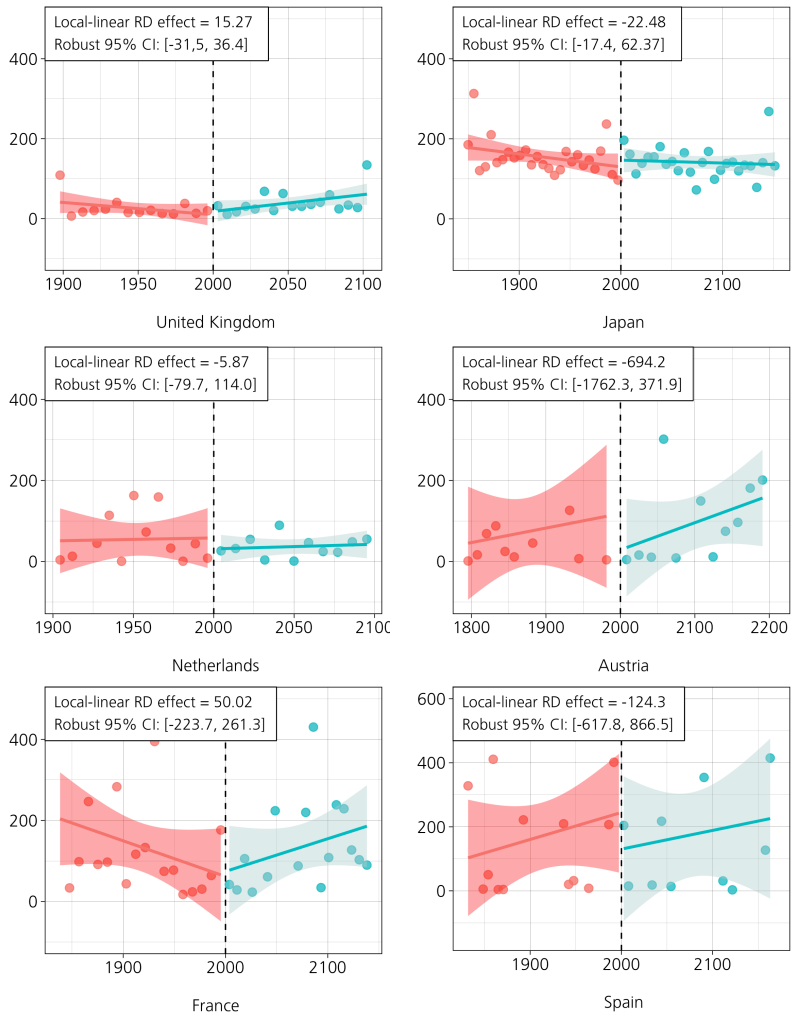


FIGURE B.7: Alternative Placebo Test. There is no jump in corporate savings at the 2000 employee threshold in countries without the establishment of parity-co determination. All models include robust bias-corrected standard errors and a MSE-optimal bandwidth selector.

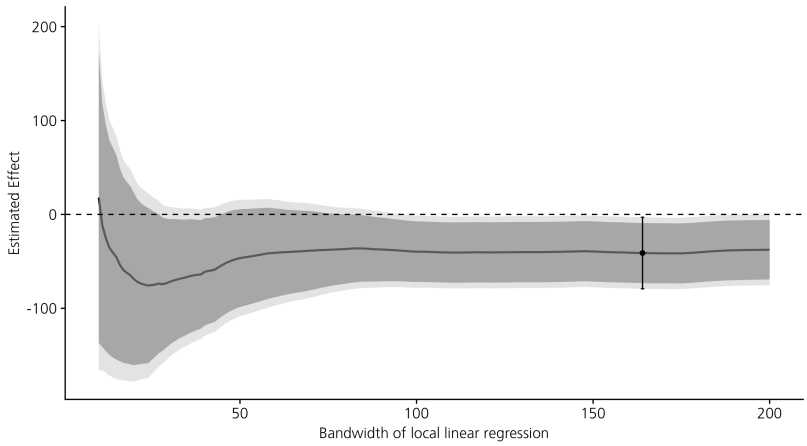


FIGURE B.8: Alternative RDD specifications with changing windows of domestic employees around the threshold of 2,000. All models include robust bias-corrected standard errors.

B.4 Firm-Level Difference-in-Difference Tests

As an alternative strategy to estimate the effect of parity co-determination on savings at the firm level, I exploit the panel structure of the firm-level data and use a difference-in-difference strategy to compare the average change in savings in firms that cross the 2000 employee threshold and have to establish co-determination (treatment group) to those that remain beneath it and thus do not have change the composition of their supervisory boards (control group). The difference between these two changes identifies the average treatment effect on the treated. The identifying assumption of this design is that the savings in firms in the treatment group (those that cross the 2000 employee), on average, followed the same trend as firms in the control group (firms that also grow but stay below the threshold). I implement the difference-in-difference strategy using a two-way fixed effect estimator controlling for firm and year fixed effects. I substantiate the identifying assumption by constructing a specification that estimates not only the treatment effect but also allows me to assess to what extent companies in treatment and control followed parallel trends in previous years. The specification looks as follows

$$Y_{i,t} = \gamma_i + \lambda_t + \sum_{\tau=0}^{m} \delta_{-\tau} \cdot D_{i,t-\tau} + \sum_{\tau=1}^{q} \delta_{+\tau} \cdot D_{i,t+\tau} + \beta X_{i,t} + \varepsilon_{i,t}, \tag{B.4}$$

where $Y_{i,t}$ represents savings in firm i at time t an $D_{i,t}$ is an indicator equaling one if a firm i has crossed the 2000 employee threshold at time t and zero otherwise. In addition, the specification includes m lags $(\delta_{-1}, \delta_{-2}, ..., \delta_{-m})$ or post-treatment effects and q leads $(\delta_{+1}, \delta_{+2}, ..., \delta_q)$ or anticipatory effects. If the identifying assumption is valid, I would expect that there is no statistically significant differences between firms in treatment and control in the years preceding the establishment of parity co-determination. In addition, the inclusion of several lagged periods allows me to study how the effect of increased labor power develops over time. Finally, $X_{i,t}$ is a vector of control variables. To develop credible counterfactuals, it is above all important to control for the different growth rates of firms that grow over the threshold and companies that stay below it. If firms that grow over the threshold, for example, are generally more dynamic than those that stay below it, this could influence savings independent of the establishment of parity co-determination. I thus control for firm growth as the change of numbers of employees in the entire time period under consideration.

In addition, I also control for the total number of employees as well as sector fixed effects. I use cluster-robust standard errors on the firm level, the level of the treatment variation.

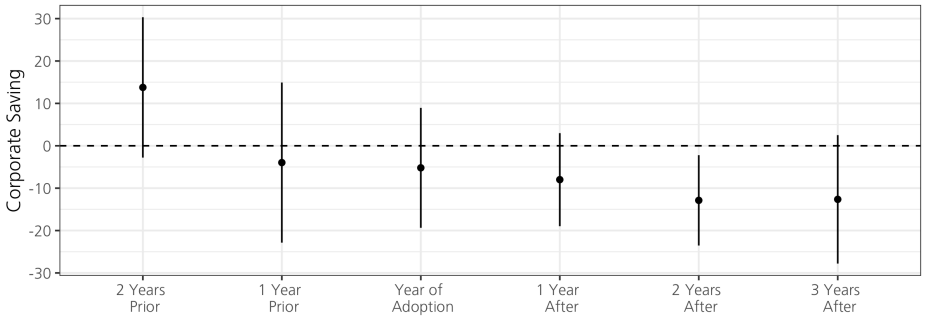


FIGURE B.9: Estimated impact of parity co-determination on corporate savings (in million $US) for years before, during, and after adoption: Difference-in-difference estimates with 95% confidence intervals cluster-robust standard errors at the firm level.

Figure B.9 plots point estimates and 95% confidence intervals of the effect of parity co-determination on corporate savings for the two years before and three years after the crossing of the 2000 employee threshold. In line with the identifying assumption it shows that with the implementation of co-determination, the estimated effect turns negative and two years after the adoption the effect reaches statistical significance (δ=-.16.6, p=0.016). In the following year, savings of firms with and without parity co-determination grow further apart. However, the effect also becomes more imprecisely measured. Overall, the difference-in-difference estimation points into a similar direction as the RDD. Increasing labor power has a negative and lasting effect on corporate savings.

C Firm-Level Savings & Trade Union Density in Germany

Section 4.3 shows that in Germany, parity co-determination decreases savings at the firm level. However, whereas co-determination has been a stable source of labor influence, other sources of labor power such as trade union density have been declining in Germany (see also Figure A.3). As discussed in section 4.2, this decline was associated with an increase of corporate savings at the national level. To what degree does firm-level data mirror this correlation?

Testing how firm-level savings respond to changing labor power over time requires more fine-grained information on the variation of trade union density across different sectors. Unfortunately, such data is not readily available. I circumvent this problem by using data from the German Socio-Economic Panel (SOEP) which provides a longitudinal survey of approximately 1100 private households (or 20000 individuals) in Germany. Some waves (1998, 2001, 2003, 2007, 2011, 2015) include items on trade union membership and, thus, can be used as an alternative data source for trade union density. Figure C.10 compares the share of working SOEP respondents who state that they are trade union members (applying post-stratification weights) with CPDS data on German trade union density. Whereas the SOEP estimates are somewhat lower than the official numbers, the trajectories of the two measures follow each other closely.

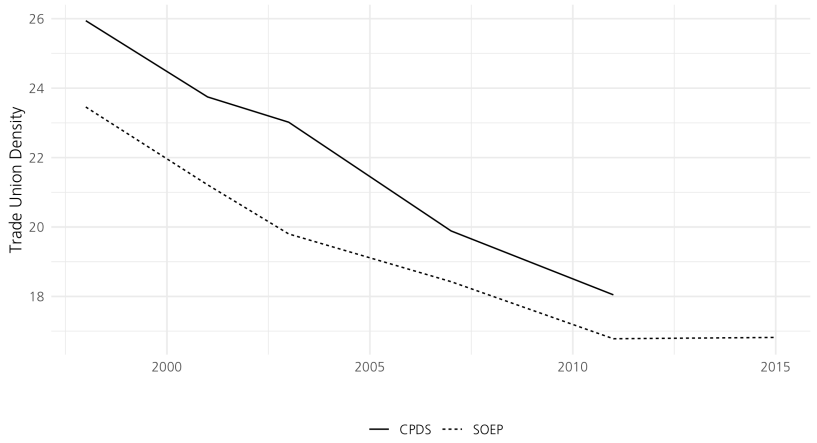


FIGURE C.10: Comparison of German trade union density in CPDS with SOEP-based estimates of the share of organized employees.

As some survey waves also include items on respondents' sector of employment, I can use the SOEP-based estimates to arrive at more fine-grained understanding of the development

trade union membership in different sectors. However, this approach comes with a number of important caveats. First, given the limited sample size of employees in the SOEP, I have to resort to a relatively broad definition of sectors to obtain enough observation for a reasonable estimate of sector-specific trade union density. I do so by aggregating SOEP responses at the NACE one digit level, which allows me to differentiate between 10 different sectors of economic activity.[25] Second, SOEP data is collected mostly to estimate statistics at the national level. While restricting the analysis to broad sectors with lots of observations and including post-stratification weights should help to produce reliable estimates, some measurement error could occur due to fact that sampling is not designed to arrive at representative figures at the sector level. Finally, only the 2007, 2011 and 2015 survey waves include both items on trade union membership *and* sector of employment. Unfortunately, this restricts the analysis of the relation between sectoral trade union density and firm-level savings to a period in which much of the decline in trade union density in Germany had already taken place. However, even within this short time period, substantial variation in trade union density exists across sectors. While, the share of organized employees in professional services (NACE 7), for example, stagnated at a low level and only fell from about 15% to 14% between 2007 and 2015, trade unions in parts of the manufacturing sector (NACE 3) witnessed a much more dynamic decline (from 27% to 22%).

I merge these SOEP-based estimates with the firm-level data and again analyze the relation between sectoral trade-union density and firm-level savings with a panel regression. To control for time-invariant firm- and industry-specific factors, I include firm and industry fixed effect. To account for common shocks in the three years under consideration, I also include year fixed effects. Standard errors in all models are clustered at the sector level. Table C shows the results of this analysis. Model 1 shows the relation between firm-level savings ratio and trade union density. Model 2 adds total value added and labor compensation per sector as sector-level controls that could affect both trade union density and savings. Model

[25] Even within this broad definition, there are not enough observations per year (less than 500) for NACE sectors 0 (agriculture, forestry and fishing), 1 (mining and quarrying) and 4 (construction, wholesale and retail trade) to estimate reliable figures. In the analysis, I, therefore, disregard these sectors. However, since only about 10% of the listed firms in the period under considerations operate in these sectors, this is unlikely to impair inference.

3 adds time-varying firm-level controls that could influence savings, including overall sales and tax payments. Results show the expected negative relation between firm-level savings and the share of organized workers in the sector in which the company operates. The more trade unions decline, the larger the rise of corporate savings.

Table C.5: Firm-Level Savings and Sector-Level Union Density

	Dependent variable:		
	Firm-level Savings Ratio		
	(1)	(2)	(3)
Sectoral Trade Union Density	−0.004**	−0.004**	−0.004**
	(0.002)	(0.002)	(0.002)
Sector-Level Controls	No	Yes	Yes
Firm-Level Controls	No	No	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Clustured SE	Yes	Yes	Yes
Observations	1,547	1,547	1,547
Note:		*p<0.1; **p<0.05; ***p<0.01	

Though various data limitations discussed above and the fact that problems of causal inference remain unsolved in this analysis, the magnitude of the effect may also shed some light on the question why corporate savings in Germany have increased despite strong co-determination. Whereas co-determination on supervisory boards reduces the average savings ration by about 4%, a 10% decline in sectoral trade union density, in this analysis, is associated with an increase of firm-level savings by about 4%. Given that the share of organized employees has decreased by a lot more than 10% in most sectors since the late 1990s, this development is likely to have outweighed the positive effects of co-determination.