Austerity and the Rise of the Nazi Party

Data Appendix

for Online Publication

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Table A1: Main descriptive statistics

	Mean	SD	Min	Max	N
State- and district-level data					
Vote cast for the Nazi party*					
Election September 1930	18.84	8.96	2.20	58.80	30
Election July 1932	39.00	14.48	7.77	83.00	30
Election November 1932	34.93	13.38	5.33	76.42	30
Election March 1933	47.14	12.11	13.29	83.01	30
Control variables**					
Δ Municipal spending	−11.68	4.40	2.81	−24.12	30
Δ State spending	−15.84	4.44	2.81	−21.92	30
Δ Municipal plus state spending	−13.21	2.05	−6.57	−18.46	30
Δ Income tax rate (district-level data)	17.20	21.11	−58.28	96.67	583
Δ Wage tax rate (district-level data)	−20.70	8.27	−63.33	19.83	558
Δ Wages	−20.50	3.26	−16.44	−30.41	30
Δ Unemployment	28.17	8.41	15.67	39.70	30
Δ Generation of electricity	−1.37	6.30	−29.85	6.93	30
City-level data					
Vote cast for the Nazi party*					
Election September 1930	18.04	5.86	6.75	33.39	67
Election July 1932	33.50	8.69	16.71	50.71	67
Election November 1932	29.31	8.06	12.96	49.77	67
Election March 1933	39.61	7.29	4.40	56.31	67
Control variables**					
Δ City total spending	−5.55	27.53	45.00	−143.57	67
Δ Unemployment	8.91	16.58	−60.38	52.42	67
Δ Construction of new buildings	−64.81	22.92	−98.42	20.00	67

* In percentages. ** Percentage change and per thousand between 1929/30 and 1932/33. All variables have been adjusted for missing values. Control variables are calculated as percentage changes of nominal values. For reference the cumulative decline in the German CPI between 1928 and 1932 was 22.5 percent while the aggregate decline in German GDP between 1928 and 1932 was about 30 percent.

Table A2: Impact of dynamic effects of city expenditures on the Nazi Party vote share, all elections

	(1)	(2)
ln Expenditures	−2.724**	−1.314**
	(0.834)	(0.443)
ln Expenditures × Election July 1932	−0.106	−0.047
	(0.169)	(0.111)
ln Expenditures × Election November 1932	−0.090	−0.030
	(0.123)	(0.081)
ln Expenditures × Election March 1933	−0.227	−0.120
	(0.223)	(0.120)
ln Unemployment		−0.589*
		(0.207)
ln Economic output		−0.987***
		(0.121)
Number of observations	308	308
City-level fixed effect	Yes	Yes
Fixed effect 1931/1932	Yes	Yes
Fixed effect 1932/1933	Yes	Yes

Dependent variable is the percentage share (×100) of the valid votes cast going to the Nazi party in the different elections. We use the controls of 1929 for the elections of September 1930, 1931 for the elections of July and November 1932, and 1932 for the elections of March 1933. Standard errors (in parentheses) are clustered on 44 administrative divisions. we standardized all variables with a mean of zero and a standard deviation of one. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A3: Impact of city expenditures on the Nazi Party vote share, elections 1930, 1932, and 1933, with population adjusted controls

	Elections 1930 and March 1933		Elections 1930 and 1932 (both)		All Elections	
	(1)	(2)	(3)	(4)	(5)	(6)
ln Expenditure	−0.337**	−0.080*	−0.781***	−0.115*	−0.553***	−0.098***
	(0.149)	(0.047)	(0.215)	(0.065)	(0.108)	(0.029)
ln Unemployment	1.094	0.235**	1.008**	0.426***	0.654**	0.271***
	(1.011)	(0.112)	(0.412)	(0.097)	(0.295)	(0.079)
ln Economic output	0.036	0.037	−0.014	−0.007	0.020	0.024
	(0.072)	(0.053)	(0.118)	(0.062)	(0.044)	(0.029)
Number of observations	154	154	231	231	308	308
RHS variables population adjusted	No	Yes	No	Yes	No	Yes
City-level fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effect 1931/1932	No	No	Yes	Yes	Yes	Yes
Fixed effect 1932/1933	Yes	Yes	No	No	Yes	Yes

Dependent variable is the percentage share ($\times$100) of the valid votes cast going to the Nazi party in the different elections. We use the controls of 1929 for the elections of September 1930, 1931 for the elections of July and November 1932, and 1932 for the elections of March 1933. We use a balanced panel with robust standard errors (in parentheses) clustered on 44 administrative divisions. We standardized all variables with a mean of zero and a standard deviation of one, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A4: Impact of city expenditures and social structure on the Nazi Party vote share, all elections.

	Baseline		Blue collars			Catholics			Protestants			Jewish		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
ln Expenditures	-2.84**	-1.52**	-0.80***	-1.17***	-0.80***	-0.62***	-1.05***	-0.62***	-0.49***	-1.05**	-0.49***	-0.82***	-1.17***	-0.82***
	(1.04)	(0.58)	(0.22)	(0.39)	(0.23)	(0.10)	(0.31)	(0.10)	(0.11)	(0.32)	(0.11)	(0.14)	(0.33)	(0.14)
ln Unemployment		-0.52**	0.27	-0.51***	0.27	0.11	-0.50***	0.11	-0.02	-0.50***	-0.02	0.41	-0.51***	0.41
		(0.23)	(0.28)	(0.17)	(0.28)	(0.19)	(0.17)	(0.20)	(0.19)	(0.17)	(0.19)	(0.27)	(0.17)	(0.27)
ln Economic output		-0.92***	-0.04	-0.45***	-0.04	-0.05	-0.46***	-0.05	-0.03	-0.46***	-0.03	0.01	-0.45***	0.01
		(0.13)	(0.05)	(0.13)	(0.05)	(0.04)	(0.13)	(0.04)	(0.04)	(0.13)	(0.04)	(0.05)	(0.13)	(0.05)
Number of observations	184	184	184	184	184	184	184	184	184	184	184	184	184	184
Col. head×dummy 1932	No	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes
Col. head×dummy 1933	No	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes
Col. head×election	No	No	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
City-level fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effect 1931/32	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes
Fixed effect 1932/33	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes

Dependent variable is the percentage share ($\times100$) of the valid votes cast going to the Nazi party in the different elections. We use the unemployment and economic output data of 1929 for the elections of September 1930, 1931 for the elections of July and November 1932, and 1932 for the elections of March 1933. The other control variables (share of Blue Collars, Catholics, Protestants, and Jewish) are for 1925. We use a balanced panel with robust standard errors (in parentheses) clustered on 44 administrative divisions. We standardized all variables with a mean of zero and a standard deviation of one, *** p<0.01, ** p<0.05, * p<0.1.

Table A5: Impact of city expenditures and welfare recipients on the Nazi Party vote share, elections 1930, 1932, and 1933

	Elections 1930 and March 1933			Elections 1930 and 1932 (both)			All Elections		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln Expenditures	−0.337**		−0.305**	−0.781***		−0.783***	−0.553***		−0.544***
	(0.149)		(0.148)	(0.215)		(0.217)	(0.108)		(0.113)
ln Welfare recip.		−0.186	−0.162		−0.019	0.014		−0.093	−0.056
		(0.147)	(0.135)		(0.124)	(0.110)		(0.122)	(0.107)
ln Unemployment	1.094	1.201	1.186	1.008**	0.977**	1.017**	0.654**	0.537*	0.653**
	(1.011)	(0.998)	(1.021)	(0.412)	(0.423)	(0.423)	(0.295)	(0.301)	(0.295)
ln Economic out.	0.036	0.044	0.032	−0.014	−0.046	−0.013	0.020	0.021	0.018
	(0.072)	(0.066)	(0.071)	(0.118)	(0.128)	(0.116)	(0.044)	(0.042)	(0.043)
Number obs.	154	154	154	231	231	231	308	308	308
City-level fixed ef.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effect 1931	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effect 1932	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes

Dependent variable is the percentage share (×100) of the valid votes cast going to the Nazi party in the different elections. We use the controls of 1929 for the elections of September 1930, 1931 for the elections of July and November 1932, and 1932 for the elections of March 1933. Data from the number of welfare recipients are from the *Statistik des deutschen Reichs*, Band 421 (*Die öffentliche Fürsorge im Deutschen Reich*) and refers to the number of public welfare recipients in open care (*Die öffentliche Fürsorge*). We use a balanced panel with robust standard errors (in parentheses) clustered on 44 administrative divisions. We standardized all variables with a mean of zero and a standard deviation of one, *** p<0.01, ** p<0.05, * p<0.1.

Table A6: Impact of city expenditures on the Nazi Party vote share, using differences between (9/1930 and 7/1932), (9/1930 and 11/1932), and (11/1932 and 3/1933).

	OLS	1st stage	2SLS	OLS	1st stage	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)
%Δ Expenditures	−0.235***	0.456***	−0.276**	−0.255***	0.454***	−0.290**
	(0.047)	(0.057)	(0.130)	(0.046)	(0.056)	(0.132)
%Δ Unemployment				0.347**	0.334**	0.360**
				(0.145)	(0.142)	(0.156)
%Δ Economic output				−0.014	0.102*	−0.011
				(0.062)	(0.056)	(0.063)
Number of observations	234	234	234	234	234	234
Kleibergen–Paap			0.024			0.023
Anderson–Rubin			0.017			0.013
Hansen			0.000			0.000
Time election fixed effect	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is the change in the percentage share (×100) of valid votes received by the Nazi party at the city level. We use a balanced panel with robust standard errors (in parentheses) clustered on 44 administrative divisions. For the description of the model and instrument see the text. We standardized all variables with a mean of zero and a standard deviation of one, *** p<0.01, ** p<0.05, * p<0.1.

Table A7: Impact of district income and wage taxes on the Nazi Party votes share using differences between (7/1932 and 9/1930), (11/1932 and 9/1930), and (3/1933 and 9/1930).

	OLS	OLS	OLS	OLS	OLS	OLS	2SLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A								
%Δ Avg. Income tax rate	0.116***	0.116***	0.135***	0.114***	0.108***	0.108***	0.454***	0.454***
	(0.029)	(0.031)	(0.030)	(0.030)	(0.027)	(0.032)	(0.073)	(0.092)
%Δ Wages	0.039	0.039	0.060	0.032	0.062**	0.062	0.043	0.043
	(0.029)	(0.094)	(0.056)	(0.028)	(0.027)	(0.096)	(0.032)	(0.093)
%Δ Unemployment	−0.086***	−0.086	−0.282***	−0.095***	−0.033	−0.033	−0.048	−0.048
	(0.030)	(0.095)	(0.056)	(0.030)	(0.024)	(0.081)	(0.034)	(0.101)
%Δ Economic output	−0.067*	−0.067	−0.225	−0.067*	−0.044	−0.044	−0.072**	−0.072
	(0.036)	(0.049)	(0.466)	(0.036)	(0.034)	(0.033)	(0.036)	(0.050)
Lagged Nazi vote share					0.368***	0.368***		
					(0.019)	(0.067)		
Number of districts	2,586	2,586	2,586	2,586	2,586	2,586	2,586	2,586
Anderson–Rubin							0.000	0.000
Stock–Wright							0.000	0.000
Kleibergen–Paap							0.000	0.014
Admin. div. level clust.	Yes	No	Yes	Yes	Yes	No	Yes	No
State-level clustering	No	Yes	No	No	No	Yes	No	Yes
State fixed effects	No	No	Yes	No	No	No	No	No
Population weighted	No	No	No	Yes	No	No	No	No
Panel B								
%Δ Avg. Wage tax rate	0.065**	0.065	0.066**	0.071***	0.072***	0.072*	–	–
	(0.028)	(0.058)	(0.027)	(0.028)	(0.022)	(0.040)	–	–
%Δ Wages	0.048*	0.048	0.085	0.042	0.073***	0.073	–	–
	(0.029)	(0.092)	(0.072)	(0.029)	(0.027)	(0.095)	–	–
%Δ Unemployment	−0.086***	−0.086	−0.288***	−0.093***	−0.030	−0.030	–	–
	(0.031)	(0.090)	(0.066)	(0.030)	(0.024)	(0.080)	–	–
%Δ Economic output	−0.063*	−0.063	−0.366	−0.062*	−0.039	−0.039	–	–
	(0.037)	(0.050)	(0.729)	(0.037)	(0.035)	(0.032)	–	–
Lagged Nazi vote share					0.372***	0.372***	–	–
					(0.019)	(0.069)	–	–
Number of districts	2,586	2,586	2,586	2,586	2,586	2,586	–	–
Admin. div. level clust.	Yes	No	Yes	Yes	Yes	No	–	–
State-level clustering	No	Yes	No	No	No	Yes	–	–
State fixed effects	No	No	Yes	No	No	No	–	–
Population weighted	No	No	No	Yes	No	No	–	–

Dependent variable is the percentage share (×100) of the valid votes cast going to the Nazi party in the different elections. We use district level income or wage taxes as a measure of austerity. Lagged values refer to the election immediately prior to the latest election in the differenced dependent variable. The income tax rate is calculated as the ratio between total revenue and total taxable income. The first stage in Columns (7) and (8) of Panel A displays a coefficient of −0.411 and a standard error of 0.018, with an associated p-value of 0.000. We cluster standard errors (in parentheses) as stated in the table. We standardized all variables with a mean of zero and a standard deviation of one, *** p<0.01, ** p<0.05, * p<0.1.

Table A8: Impact of district income taxes on the Nazi Party vote share, using differences between (7/1932 and 9/1930), (11/1932 and 9/1930), and (3/1933 and 9/1930).

	Nazis 1928		Blue Collars		Agriculture		Industry		Civil servants		Self-employed	
	Below	Above	Below	Above	Below	Above	Below	Above	Below	Above	Below	Above
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
%Δ Avg. income tax	0.069	0.178***	0.175***	0.046	0.035	0.080***	0.109***	0.075	0.079**	0.090**	0.039	0.098***
	(0.045)	(0.042)	(0.038)	(0.039)	(0.058)	(0.030)	(0.032)	(0.048)	(0.037)	(0.043)	(0.049)	(0.031)
Number of districts	1,251	1,335	1,308	1,278	1,272	1,314	1,281	1,305	1,233	1,353	1272	1314
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is the percentage share ($\times 100$) of the valid votes cast going to the Nazi party in a district. Nazi vote share is measured in the elections of 1928. All the other outcomes are measured in 1925 (in shares). We use district level income taxes as a measure of austerity. The income tax rate is calculated as the ratio between total revenue and total taxable income. Robust standard errors clustered at the district level. We standardized all variables with a mean of zero and a standard deviation of one, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A9: Impact of district income and wage taxes on the main political parties vote share, using differences between (7/1932 and 9/1930), (11/1932 and 9/1930), and (3/1933 and 9/1930) and non-standardized coefficients.

	Income taxes						Wage taxes					
	Nazis	SPD	KPD	Z	DNVP	Other	Nazis	SPD	KPD	Z	DNVP	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
%Δ Average tax rate	0.050***	0.006	-0.003	-0.009*	0.004	-0.048**	0.097**	0.062	0.010	-0.074***	-0.025	-0.069
	(0.017)	(0.004)	(0.002)	(0.005)	(0.005)	(0.018)	(0.039)	(0.039)	(0.016)	(0.024)	(0.015)	(0.042)
Number of districts	2,586	2,586	2,586	2,586	2,586	2,586	2,586	2,586	2,586	2,586	2,586	2,586
Standard controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-level fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District-level clustering	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Dependent variable is the percentage share (×100) of the valid votes cast going to the different parties in the different elections. We use district level income or wage taxes as a measure of austerity. The tax rate is calculated as the ratio between total revenue and total taxable income. We cluster standard errors (in parentheses) as stated in the table. All models include state-level fixed effects with standard errors clustered at the state level. Clustering at the district level report very similar results. SPD (*Sozialdemokratische Partei*) is the Social Democratic Party; KPD (*Kommunistische Partei Deutschlands*) is the Communist Party; Z (*Deutsche Zentrumspartei*) is the Center Party; and DNVP (*Deutschnationale Volkspartei*) is the German National People's Party, *** p<0.01, ** p<0.05, * p<0.1.

Table A10: Impact of district income and wage taxes on the Nazi Party vote share using percentage point change instead of percentage change in income and wage taxes, using differences between (7/1932 and 9/1930), (11/1932 and 9/1930), and (3/1933 and 9/1930).

	Income taxes				Wage taxes			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Average tax	0.093***	0.087***	0.093***	0.087***	0.118***	0.115***	0.018**	0.115*
	(0.033)	(0.033)	(0.025)	(0.028)	(0.026)	(0.027)	(0.057)	(0.057)
%Δ Wages		0.039		0.039		0.055*		0.055
		(0.029)		(0.093)		(0.029)		(0.088)
%Δ Unemployment		−0.092***		−0.092		−0.079***		−0.079
		(0.030)		(0.093)		(0.031)		(0.092)
%Δ Economic output		−0.067*		−0.067		−0.063*		−0.06
		(0.036)		(0.048)		(0.038)		(0.050)
Number of districts	2,586	2,586	2,586	2,586	2,586	2,586	2,586	2,586
District-level clustering	Yes	Yes	No	No	Yes	Yes	No	No
State-level clustering	No	No	Yes	Yes	No	No	Yes	Yes

Dependent variable is the percentage share (×100) of the valid votes cast going to the Nazi party in the different elections. We use income level wage taxes as a measure of austerity. Taxes are calculated as the percentage point change instead as percentage change. We cluster standard errors (in parentheses) at the district level in columns 1, 2, 5, and 6 and at the state level in columns 3, 4, 7, and 8. The method of estimation is least squares and we standardized all variables with a mean of zero and a standard deviation of one, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A11: Social, economic, religious and political structure between border districts located on opposite sides of the border, percentages of total population.

|	N	Mean		SD		Min		Max		t-test	
		D1	D2	D1	D2	D1	D2	D1	D2	t-stat	p-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Social, cultural, and economic controls											
Agriculture, forestry, and fishery, 1925	232	36.034	36.025	18.488	17.960	0.685	0.255	83.649	78.536	0.008	0.994
Industry and manufacturing, 1925	232	35.253	35.803	13.328	14.739	4.170	8.825	68.056	75.209	−0.674	0.501
Civil service, army, and clergy, 1925	232	3.669	3.633	1.318	1.592	0.574	0.855	9.094	10.935	0.317	0.752
Self-employed workers, 1925	232	23.854	23.868	7.868	7.817	8.576	9.912	43.130	48.313	−0.033	0.974
White-collar workers, 1925	232	11.358	10.779	5.207	5.184	2.406	2.534	28.850	29.446	1.505	0.134
Blue-collar workers, 1925	232	39.971	40.379	11.457	12.057	13.213	11.346	69.042	72.287	−0.664	0.507
Employed in all occupations, 1925	232	91.295	91.033	4.869	8.347	37.118	39.062	97.945	130.388	0.443	0.658
Unemployed or with no occupation, 1925	232	8.175	8.144	2.861	2.960	2.055	2.971	20.517	20.517	0.161	0.872
Catholic population, 1925	232	25.544	26.168	31.996	30.613	0.404	0.650	98.380	98.425	−0.324	0.746
Jew population, 1925	232	0.451	0.458	0.575	0.841	0.000	0.000	2.283	10.471	−0.119	0.905
Unemployed, 1933	192	6.426	6.544	3.346	3.019	1.554	1.202	16.142	21.750	−0.562	0.575
Full-time occupation, 1933	192	7.994	7.922	2.219	2.288	3.575	3.457	15.312	18.600	0.494	0.622
Fiscal controls											
Fiscal surplus 1928 (using income taxes)	253	−1.515	−1.743	0.507	0.207	−2.412	−2.412	2.726	−1.218	6.896	0.000
Fiscal surplus 1929 (using income taxes)	253	−1.582	−1.804	0.504	0.200	−2.614	−2.614	2.637	−1.313	6.761	0.000
Fiscal surplus 1932 (using income taxes)	253	−2.080	−2.305	0.509	0.211	−3.198	−3.198	2.173	−1.835	6.705	0.000
Fiscal surplus 1928 (using wage taxes)	253	−1.834	−1.971	0.307	0.309	−2.966	−2.966	−1.600	−0.939	4.620	0.000
Fiscal surplus 1932 (using wage taxes)	253	−2.280	−2.384	0.255	0.273	−3.323	−3.323	−2.120	−1.281	3.745	0.001
Electoral outcomes in May 1928											
Nazi party vote share	257	2.764	2.648	2.601	2.425	0.202	0.144	12.323	13.976	0.578	0.564
Social Democratic party	257	29.170	30.163	12.988	13.727	1.256	1.665	56.014	54.911	−1.227	0.221
Communist party	257	6.708	6.478	7.117	6.001	0.061	0.445	42.534	30.590	0.542	0.589
Center party	257	15.840	15.469	20.674	21.567	0.155	0.189	75.278	77.063	0.278	0.781

We are using a balanced sample adjusting for missing data between variables in districts and pair districts. We report the t-statistic (Column 10) and the corresponding two-tailed p-value (Column 11). When p-values are above 0.1 we conclude that the mean difference between border districts are not different from zero. In the "Social, cultural, and economic controls," data from the census of 1925 refer to the number of male wage earners employed in the different occupations. Data are originally from the census of 1925 and 1933 collected by Falter and Gruner (see data Appendix).

Table A12: Restricted sample of cross distrit-pairs located on opposite sides of the borders using the initial level of taxes as an instrument.

	(1)	(2)	(3)	(4)	(5)	(6)
Income taxes	0.345***	0.345***	0.350***	0.350***	0.194**	0.210***
	(0.079)	(0.115)	(0.081)	(0.124)	(0.079)	(0.079)
Wages			−0.450*	−0.450		−0.966***
			(0.246)	(0.480)		(0.212)
Unemployment			0.015**	0.015		−0.008
			(0.007)	(0.019)		(0.009)
Economic output			0.676***	0.676***		0.809***
			(0.119)	(0.226)		(0.108)
Number of districts	1,989	1,989	1,989	1,989	1,989	1,989
Anderson–Rubin	0.000	0.000	0.000	0.001	0.008	0.004
Kleibergen–Paap	0.000	0.001	0.000	0.001	0.000	0.000
Pair-district clustering	Yes	No	Yes	No	Yes	Yes
State-level clustering	No	Yes	No	Yes	No	No
Pair fixed effects	No	No	No	No	Yes	Yes

Dependent variable is the percentage share of the valid votes cast going to the Nazi party in the elections of July 1932, November 1932, and March 1933. For the years used in the controls see the text. We cluster standard errors (in parentheses) at the district or state levels noted. We instrumented the change in the level of taxes paid with the taxes paid in 1928. The first stage always shows the expected negative sign and it is statistically significant at 1 percent, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Figure A1. Impact of district income taxes on the Nazi Party vote share, elections 1930 and 1933.
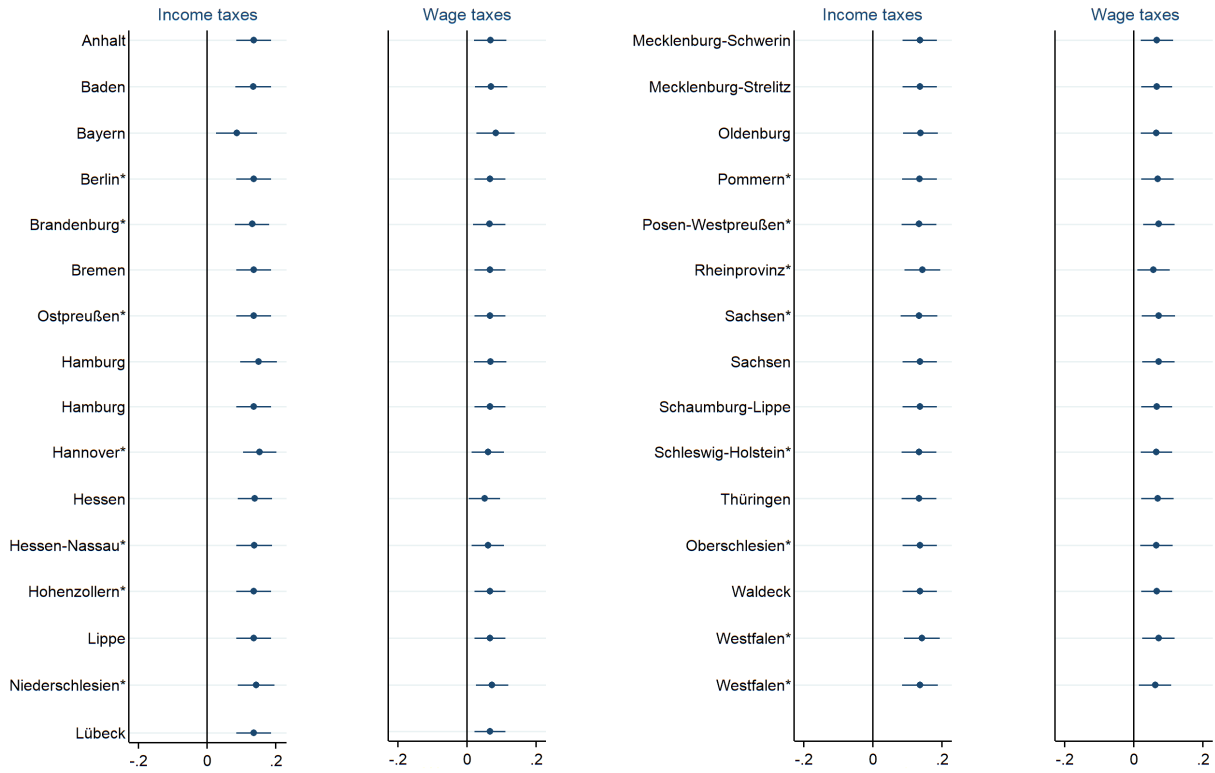
Dependent variable is the percentage share (×100) of the valid votes cast going to the different parties in the different elections. We use the differences between the elections of 1930 and 1933. The name of the state/province is the one excluded in the regression. The asterisk denotes a Prussian province. We use changes in district level income taxes or wage taxes as a measure of austerity. We include state-level fixed effects with standard errors (in parentheses) clustered at the district level. We standardized all variables with a mean of zero and a standard deviation of one..

DATA SOURCES

We begin explaining our sources on the city-level data on electoral results, control variables, expenditures, population, unemployment, new residential apartments, and mortality. Data on electoral returns for the Reichstag elections of September 1930, 1932 (July and November), and March 1933 at the city level are from the official publication *Statistik des Deutschen Reiches*. These data have been previously used by other authors including, Satyanath, Voigtländer, and Voth (2017), and were initially collected and used by Falter, Lindenberger, and Schumann (1986). We used the updates made by Satyanath, Voigtländer, and Voth (2017) to Falter and co-authors' data, which accounts for, among other things, changes in the names of cities across time.

Population, unemployment, number of new apartments, expenditure, and taxes are newly collected from the *Statistical Yearbooks of the German Municipalities*. Until 1934 these statistical yearbooks were published as *Statistisches Jahrbuch deutscher Städte* and after 1934 under the name of *Statistisches Jahrbuch deutscher Gemeinden*. Data for all these variables were available for cities with more than 50,000 inhabitants reporting a panel of 98 cities. Although unemployment data were available for 248 cities, we adjust the panel to cities with more than 50,000 inhabitants (when spending data and other controls are all available). For some six cities, data were not reported for all the years (1928–1932) since they were close to the threshold of 50,000 inhabitants. For instance, data for the city of *Neuß* are only reported for 1931, 1932, and 1933 when the population was more than 50,000 individuals: 54.8 in 1931, 55.5 in 1923, and 55.8 in 1933. The same appears in the city of *Ratibor* with a population (in thousands) in 1931 of 50.5, 50.7 in 1932, and 51.8 in 1933.

Spending data (*Ausgaben Insges. Einschl. Umlagen in* 1,000 RM) are reported by fiscal years, which runs from the first day of April in a year to the last day of March in the following year. Data adds the ordinary and extraordinary budget and all levels of expenditure. In the statistical analysis, we removed the city of *Solingen* (an independent city *Stadtkreise* in the state of North *Rhine-Westphalia*) as a potential outlier. Regarding spending data by budget category, General Administration includes expenditures on general administration, police, and security. Education combines spending on elementary school, secondary schools, middle schools, high schools, and other school systems, including spending on science, art, and church. Health and wellbeing add data on healthcare and healthcare facilities, welfare, and relief. Construction adds construction management and civil entering, spending on transport, and general economic development. Spending on public infrastructures adds data on street cleaning and lighting, parks, cemeteries, cleaning of canals, sewage and drainage, and, finally, Housing combines data on housing and settlement. For the later years, instead of the totals for these five categories, data were reported in more disaggregated categories. However, to have a consistent panel, we just add the more disaggregated categories into these five meaningful categories reported in 1929.

Population data refers to the level of population (nationals and non-nationals) at the beginning of the year (1 January), with the exception of 1933 that was reported on 16 June 1933. Unemployment data are given at the end of the year (31 December), with the exception of 1933 that was reported on 28 February of 1934. A worker is defined as unemployed if the worker is part of the labor force but not working, and it is registered in the local offices as an unemployed person. To proxy economic output, we use the yearly construction of new apartments on residential buildings (*Neuerstellte Wohnungen in Wohngebauden*). We note that the construction of new residential apartments moved closely with the development GDP (for instance, see Ritschl 2013a, tab. 4.4).

We use the weekly bulletins of the *Reichs-Gesundheitsblatt* to collect a new city-level panel of weekly high-resolution mortality data for more than 23 causes of death. Weekly data have been aggregated into yearly data and are available for cities with a population larger than 100,000 inhabitants. In total, the panel is based on 51 cities. Since the *Reichs-Gesundheitsblatts* do not provide population figures, we calculate crude death rates with the mid-year population weighting the number of deaths of a certain cause by the city-population (in thousands). We also use the data on infant deaths (deaths below the age of 1, not including stillbirths) to calculate the city-level infant mortality rates weighting the infant deaths by the number of city births, which are also reported in the health bulletins.

We next move to district-level data. Data on electoral returns for the Reichstag elections of September 1930, 1932 (July and November), and March 1933 at the district (kreis) level are from the official publication *Statistik des Deutschen Reiches* (*Wahlen zum Reichstag*'s volumes). As we the city data, we used the updates made by Satyanath, Voigtländer, and Voth (2017) to Falter and co-authors' data.

Income taxes are newly collected from Die *Einkommen- und Körperschaftsteuerveranlagungen* and wage taxes are newly collected from *Der Steuerabzug vom Arbeitslohn* (both of which are reported under the official *Statistik des Deutschen Reichs*). The Reich statistical books provide state and district (*kreis*) level data on the number of taxpayers, total taxable income, and total revenue (in 1,000 RM) on income and wage taxes. For income taxes at the district level, we use the data from *Teil I Abschnitt A*, *Einkommensteuerveranlagung*, *Steuerpichtige*, *Einkunfte und festgesetzte Steuer* and for wage taxes at the district level the data from *Teil I Abschnitt A*, *Lohnsteuerpichtige*, (*soweit nicht veranlagt*): *Steuerbelastete*, *Steuerbefreite*, *Unbesteuerte*.

Government spending data are newly collected from *Die Ausgaben und Einnahmen der offientlichen Verwaltung im Deutschen Reich* (which are reported under the official *Statistik des Deutschen Reichs*). These books provide state-level data on central, state, and municipal spending (in 1,000 RM). Data for unemployment are the number of unemployed workers in a state as given in the official *Statistisches Jahrbuch für das Deutsche Reich*. A worker is defined as unemployed if the worker is part of the labor force but not working. For each year, we created a state-level index of nominal wages arithmetically averaging the monthly data from the hourly wages paid in four occupations: construction (*Bauarbeite*), wood (*Holzarbeiter*), and skilled and unskilled workers in metallurgy (*Metallarbeiter*). This index is based on 38 cities that consistently reported data between 1929 and 1933, and each city had been located within each of the states. Data are in *Rentenpfennig* (*Rf*) (1 *Rentenmark* = 100 *Rentenpfennig*) and were newly collected from the official *Statistisches Jahrbuch für das Deutsche Reich*. Throughout we use the natural logarithm of this index in a state or the percentage change. The 38 cities are: *Aachen*, *Altona*, *Augsburg*, *Barmen*, *Berlin*, *Bochum*, *Brandenburg*, *Braunschweig*, *Bremen*, *Breslau*, *Chemnitz*, *Dortmund*, *Dresden*, *Duisburg*, *Dusseldorf*, *Erfurt*, *Essen*, *Frankfurt a. M.*, *Gelsenkirchen*, *Hagen*, *Halle a. S.*, *Hamburg*, *Hannover*, *Karlsruhe*, *Kassel*, *Kiel*, *Köln*, *Königsberg*, *Leipzig*, *Magdeburg*, *Mannheim*, *Munchen*, *Nürnberg*, *Remscheid*, *Solingen*, *Stettin*, *Stuttgart*, and *Wuppertal*.

Economic output is proxied by the generation of electricity under the assumption that the vast majority of manufactured goods and services are produced using electricity. Data are at the state level, measured in 1,000 kWh, and were newly collected from the official *Statistisches Jahrbuch für das Deutsche Reich*. Throughout, we use the natural logarithm of this variable or percentage changes.