

Economic policies, labour unions, and voter turnout in the advanced industrial democracies

Abstract

There is a large body of literature that examines the effect of labour unions on voter turnout. The empirical findings consistently point at the positive impact unions have on voter turnout. However, to the best of my knowledge no study accounts for the factors that affect union membership. Based on data from 20 advanced industrial democracies observed between 1960 and 2015, this study examined the socioeconomic factors influencing union membership that influence voter participation.

Keywords: Economic policies; Labour unions; Voter turnout; IV regression.

JEL classification: J51, D72, C26.

1 Introduction

The relationship between labour unions and voter turnout has been a long-standing topic of study. Viewed as an explanatory variable, union membership is believed to have a positive impact on voter turnout. (Delaney et al., 1988; Leighley and Nagler, 1992; Radcliff, 2001; D'Art and Turner, 2007; Gallego, 2010; Kerrissey and Schofer, 2013, 2018; Frank and Martínez i Coma, 2023, for example). Arguably, the political influence of unions runs through their networks of relatives, friends, and acquaintances, hence increasing the wider society's political engagement including voter turnout. The literature also argues that the influence of unions reaches non-union members who tend to be less politically active than their unionised peers (Radcliff, 2001; D'Art and Turner, 2007). However, in examining the influence of unions on voter turnout, the empirical literature fails to take into account the socio-economic context that influences union membership.

After the 1939-45 war, the advanced industrial democracies opted for a social contract whereby labour accepted the capitalist economic arrangements in exchange for jobs, social security, and basic social services. Owing to the expansionary policies of the welfare state, the industrialised economies registered unmatched rates of growth

(Chang, 2011), low levels of unemployment, and a substantial increase in the living standards of the masses. The full employment-oriented policies of the welfare state created a sense of security among workers and this, in turn, had a positive impact on organised labour. Research shows that union membership in most industrialised economies increased significantly over the post war period reaching unprecedented levels (Hancké, 1993; Western, 1993; Visser, 2019). Hancké (1993) notes that the post-war period was the heyday of the labour movement in the advanced industrial democracies.

However, the expansionary policies of the post-war model led to inflationary pressure, and by the 1970s inflation rates reached double digits in most industrialised economies. By the early 1980s the full employment-oriented policies that dominated the post-war period were abandoned in favour of a new package of policies contractionary in nature with adverse effects on the socio-economic conditions of the masses. The data shows that over the past four decades the labour share of income declined in most advanced industrial democracies (Matthews, 2016), household debt increased (Cecchetti et al., 2011), and work has become more precarious and uncertain (Kalleberg, 2009). Parallel to that union membership has declined significantly (Visser, 2019). In this socio-economic context, voters in the advanced capitalist democracies seem to have grown alienated from the electoral process. The data shows that voter turnout has declined in all high-income countries between the early 1940s and the late 2010s (IDEA, 2018).

The present paper argues that economic policies affect union membership, which, in turn, determine voter turnout. Specifically, if the implemented economic policies create an environment of social security (insecurity), then union membership increases (decreases), and this leads to higher (lower) voter turnout. The hypothesis this paper tests can be presented as follows:

Expansionary policies $\Rightarrow$ Social security $\Rightarrow$ Strong unions $\Rightarrow$ High voter turnout

equivalently

Contractionary policies $\Rightarrow$ Social insecurity $\Rightarrow$ Weak unions $\Rightarrow$ Low voter turnout

All advanced capitalist economies are well established democracies with multi-party systems, and free and fair elections. However, there are indicators that the democratic model is in crisis. The declining voter turnout in most of the industrialised democracies, along with the rise of right-wing groups and populism (e.g. Fratelli d'Italia, AfD in Germany, Golden Dawn in Greece, and PVV in the Netherlands) evidence that crisis. Yet, democracy, as we know it, is still seen as the best political arrangement, and the

advanced capitalist democracies led by the United States are keen on spreading it around the world. This makes the high-income democratic countries, the birthplace of democracy as we know it, appropriate for the study of (the declining) voter turnout. Moreover, the eagerness of the high-income countries to export and promote a democracy (reduced to its procedural aspects, nonetheless) in crisis around the world, makes the democratic model or aspects of it like voter turnout—the focus of the present paper, worth examining.

Using a panel of data relative to 20 advanced industrial democracies, the empirical results of this paper show that there is a positive relationship between union density and voter turnout as the literature consistently points out. Furthermore, there is evidence that the contractionary economic policies that have been implemented since the early 1980s explain the decline in union membership. In other words, this paper shows that the environment of social insecurity the contractionary economic policies have created over the past decades explain the decline in union membership which, in turn, explains the low level of voter turnout, thus confirming the central hypothesis of the present paper.

The remainder of the paper is organised as follows. The next section reviews the literature. Section 3 discusses the theory. Section 4 introduces the data and the model. Section 5 reports and discusses the results of the regression. Section 6 concludes.

2 Literature review

There is a consensus among researchers that higher levels of unionisation lead to higher levels of electoral participation measured by voter turnout. Unionised workers, who are more politically active than their non-unionised peers (Kerrissey and Schofer, 2013, 2018), are believed to have a positive impact on the political participation of several groups like relatives, friends, and acquaintances, and through them on the participation of the wider society.

Using data obtained from a survey relative to the 1978 US national elections, Delaney et al. (1988) find that union members are more politically engaged than non-unionised workers and family members. Specifically, unionised workers are more likely to “agree that voting is important,” and more likely to “register to vote.” The results of the regression are, however, weakly significant. Using a larger sample, Radcliff (2001) finds

that unions increase political participation not only among members but also their family members and the public in general. The author concludes that the level of unionisation explains much of the decline in voter turnout in post-1960 United States. The findings of Radcliff (2001) are in agreement with those of Leighley and Nagler (1992) who combine independent variables measuring individual attitudes and characteristics with aggregate variables at the state level in the United States. The authors find that union members voted in the 1984 US presidential elections more than non-members. Another study that exploits the 1984 US election data is Juravich and Shergold (1988). The authors examine the effect of a number of union roles and activities including leadership position, receipt of union literature, and attendance of union meetings on voter turnout. The empirical findings show that of the five variables measuring union activities only the coefficient associated with union leadership is statistically significant. Moreover, there is evidence that active union members tend to vote for the candidate endorsed by their union.

Rosenfeld (2010) uses data covering the years from 1984 to 2006 and distinguishes between union members in the private sector and their peers in the public sector. Corroborating the findings of other studies, the results of the regression show a positive and statistically significant relationship between union membership and voter turnout. Moreover, unionised public sector employees are more likely to participate in the electoral process than non-members working in the same sector. A similar pattern is found in the private sector. Considering a range of dependent variables measuring political and civic engagement, Kerrissey and Schofer (2013, 2018) find that while union members are as interested in politics as non-unionised workers, the former are more likely to participate in elections than the latter. The results also show that union members tend to be more politically engaged than non-members.

Studying the European context, Gallego (2010) exploits individual-level data relative to a sample of countries about 90 percent of them European and finds a positive and statistically strong relationship between unionisation and voter turnout. In their study, D'Art and Turner (2007) examine the effect of union membership, and the presence of unions in the workplace on workers' political and civic engagement. Lending support to the findings of other studies, the empirical results show that in firms with union presence, non-unionised workers tend to be more politically engaged than their peers in workplaces with no union presence. This result suggests that an institutional context favourable to the existence of trade unions is conducive to higher levels of political participation. There is also evidence of a statistically significant difference in the level of political engagement between unionised and non-unionised workers in countries with low levels of unionisation. That difference is, however, statistically insignificant in countries with high levels of union density. D'Art and Turner (2007) conclude that in

countries with higher levels of union membership, unions increase political activism among their members as well as non-members.

A search of the literature shows that the majority of studies on the relationship between union membership and voter turnout use individual-level data. However, one study that exploits aggregate data is Gray and Caul (2000). In their paper, the authors use nation-level voter turnout data transformed into variations with respect to their 1950s levels for 240 elections held in 18 industrialised democracies between 1950 and 1997. Agreeing with the findings of the literature that exploits individual-level data, the results of the regression show that low levels of union density map onto low levels of electoral participation (Gray and Caul, 2000).

Of the more recently published studies on union membership and voter turnout are Ferreira da Silva et al. (2021); Santana and Aguilar (2021); Frank and Martínez i Coma (2023). Based on the assumption that voters are no longer mobilised by the party (i.e. programme or ideology) but by its leader, Ferreira da Silva et al. (2021) examine the importance of the party leadership in influencing turnout decision. In their analysis, the authors use data relative to 52 elections held in 13 Western European countries from 1974 to 2016 and regress a binary-coded variable capturing whether the voter participated in the election (= 1, 0 otherwise) on a number of variables including union density. The results relative to four specifications using over 100 thousand observations each, suggest that union density is a robust predictor of the voter's participation in election.

In Frank and Martínez i Coma (2023), the authors use data relative to 579 elections from 44 studies covering 80 countries between 1945 and 2014. In a primary analysis consisting of reviewing the predictors of voter turnout, the authors find that union membership has a positive impact. In a further analysis involving over 2.4 million regressions, the empirical findings show that union density is a significant predictor of voter turnout irrespective of the estimation method applied (i.e. random effects or random effects). The result also holds when an alternative dependent variable, that is the voting-age population, is used instead of registered voters.

Some authors take a different angle in examining electoral participation by studying the cost of voting (Sigelman and Berry, 1982; Blais et al., 2019; Bhatt et al., 2020; Santana and Aguilar, 2021). The obvious inference is that lower cost of voting maps onto higher voter turnout. One paper that is of particular relevance to the present study is Santana and Aguilar (2021). The authors use survey data relative to 27 elections in five advanced capitalist democracies to study the determinants of the cost of voting. The empirical

findings show that union membership decreases the cost of voting (= 1 if voting is perceived as difficult, 0 otherwise), which is expected to increase voter turnout. The rationalisation of the result is pretty straightforward. Unions provide their members with the skills and knowledge that enable them to navigate the political landscape more efficiently, and facilitate the decision for whom to vote, therefore increasing voter turnout. As Flavin and Radcliff (2011, p. 634), unions increase the “political sophistication and interest” of their affiliates, and that is due to the way they operate and contribute to the management of the workplace. “Selecting members for leadership positions and voting on proposed wages and contracts are both examples of political participation in the workplace . . . the use of these political skills translates beyond just the workplace and increases a member’s likelihood of becoming involved in the political process and, ultimately, voting.”¹

In summary, there is a consensus among researchers that there is a positive relationship between union membership and voter turnout. However, this consensus is based on individual-level data. Assuming that voting is “in the end an individual-level phenomenon,”² authors typically use micro-data obtained from surveys. Arguably, while voting is indeed an individual matter, voter turnout is an aggregate variable and country-level data is more appropriate. Moreover, in studying the effect of unions on voter turnout, the empirical literature fails to account for the factors that influence unionisation. This paper contributes to the literature in two ways. First, by using country-level data instead of survey data—the dominant strand in the literature. Second, by showing that the socio-economic conditions, that are determined by economic policies, affect union membership, which, in turn, influence voter turnout.

3 Theory

The widespread poverty and destitution the 1939-45 war caused along with the prodigious expansion of the Soviet Union and its appeal – rightly or wrongly – to sections of the working classes, compelled the ruling classes in the high-income countries to make concessions to labour in the form of full employment, social protection, and basic social services in exchange for social peace. Owing to its expansionary policies, the post-war social pact produced unmatched levels of economic growth (Eichengreen, 1996; Chang, 2011), full employment, and a substantial increase in the living standards of the masses. Those socio-economic outcomes created a sense of security among workers and this, in turn, had a positive impact on organised labour. Over the post-war period, unions increased significantly in number and strength in the advanced capitalist democracies,

¹ Flavin and Radcliff (2011), p. 634.

² Radcliff (2001), p. 409.

reaching their peak by the 1970s (Hancké, 1993). For example, in the US, arguably the country with the weakest labour movement in the advanced industrial economies, the strength of the labour unions was evidenced by wage settlements which almost always involved pay rises (Clawson and Clawson, 1999). In the UK, labour unions were represented in the National Economic Development Council and the National Incomes Commission. Perhaps most indicative of the influence of the unions in the UK is that even Conservative prime ministers consulted them on relevant issues. In Italy the proportion of factory workers covered by collective bargaining was as high as 75 percent by the mid-1970s (Treu, 1987). In neighbouring France, Mallet (1970) notes that after the events of May 1968 the labour movement, including union members and non-members, grew stronger. “On ne négocie pas, on prend” became the slogan of the labour movement in France, and when there were negotiations they should only result in the ratification by management of the collective decision of the workers—effectively putting management “devant le fait accompli.”¹

Parallel to the increase in union membership, voter turnout in the advanced capitalist democracies reached record high compared to the subsequent Neoliberal era. Apart from Greece (1967 - 1974), Portugal (1932 - 1968), and Spain (1939 - 1975) that had dictatorships, voter turnout had been consistently high over the post-war period (IDEA, 2018). Arguably, the increase in union membership meant more human and financial resources available to unions to mobilise during elections to encourage members, and other groups (e.g. family members, friends), and through them the wider society to participate in elections and vote for the political agenda that resonates with the unions’ line of activism.

While it improved the living conditions of the masses, the expansionary policies of the post-war period led to inflationary pressure. The data reported by Layard et al. (1991) and the World Bank (2021) shows that in the advanced industrial democracies inflation increased significantly reaching double digits by the late 1970s. Authors of the liberal persuasion blamed unions’ collective bargaining for the high levels of inflation. To combat inflation, Frederick von Hayek (2011), for example, advocated a strict monetary policy and stated that unions were threatening “[t]he whole basis of our free society [...] by the powers arrogated by [them],” and urged governments to intervene by controlling wages in order to weaken the unions. Hayek writes that “[o]nce government undertakes to determine the whole wage structure and is thereby forced to control employment and production, there will be a far greater destruction of the present powers of the unions.”²

¹ Mallet (1970), p. 312.

² Hayek (2011), p. 238.

Hayek's views about the dangers of inflation were commonplace among liberals and the ruling classes in the advanced capitalist democracies at the time (Tomlinson, 2012).

By the early 1980s, the advanced industrial democracies abandoned the expansionary policies that dominated the post-war period in favour of a new model characterised by "strict monetary policy combined with supply-side policies instead of the expansionary fiscal policy that dominated the post-war period. Governments were recommended to impose strict cash-limits on their spending, and to raise interest rates to slow down the growth of the money supply."¹ The new socio-economic model that has been in place for the past four decades has, among other things, undermined the foundations of job security that characterised the post-war model with dire consequences for labour. Kalleberg (2009) notes that since the 1970s there has been an increase in employment insecurity and uncertainty. Moreover, in two reports published 17 years apart, the OECD documents an increase in job insecurity in the advanced industrial democracies (OECD, 1997, 2014).

Parallel to the adverse effect of the contractionary economic policies on the living conditions of the masses, union membership has been steadily declining over the past four decades. The data reported by Visser (2019) shows that the proportion of unionised workers has plummeted in most advanced industrial democracies. Table 1 reports the change in union density in 15 advanced capitalist democracies between 1960 and 2015.

Table 1: Change in percentage in union density
in 15 industrialised democracies between 1960 and 2015

Australia	-70.85	Germany	-49.31	New Zealand	-60.99
Austria	-54.43	Ireland	-40.06	Norway	-12.54
Belgium	+30.78	Italy	+44.72	Sweden	+03.50
Finland	+108.47	Japan	-45.99	United Kingdom	-40.11
France	-58.15	Netherlands	-57.47	United States	-64.07

Data source: Visser (2019). The percentage changes are the author's calculations.

The data shows that in 10 of the 15 countries unions lost between 40 and 71 percent of their members with Australia, the United States, and New Zealand registering the highest decreases, about 71, 64, and 61 percent, respectively. This paper argues that the decline in union membership is caused by the Neoliberal contractionary policies that

¹ Arif (2020)

have been implemented since the early 1980s. Those policies have created a socio-economic environment whereby social insecurity increased making workers content with their jobs and pay and avoid confrontation with their employers, which, in turn explains the decline in union membership.¹

With the decline in union membership, the high-income democracies witnessed a decline in voter turnout. Table 2 reports the percentage change in voter turnout in 15 industrial democracies between the first half of the 1940s and the second half of the 2010s. The data shows that voter turnout has declined in all countries, with France registering the largest fall of over 40%, followed by Japan (about 24%), followed by the UK, the US, and Austria with declines between 19 and 22 percent.

Table 2: Change in percentage in voter turnout in parliamentary elections in 15 industrialised democracies between the first half of the 1940s and the second half of the 2010s

Australia	-2.19	Germany	-2.98	Netherlands	-12.02
Austria	-21.90	Ireland	-15.46	New Zealand	-15.74
Belgium	-2.13	Italy	-18.13	Norway	-4.63
Finland	-12.17	Japan	-24.41	United Kingdom	-19.21
France	-40.50	Luxembourg	-2.44	United States	-21.09

Data source: IDEA (2018). The percentage changes are the author's calculations.

Agreeing with the consensus, this paper argues that the decline in union membership explains the decline in voter turnout. Moreover, it hypothesises that the deterioration of the socio-economic conditions of the workers leads to the loss of (potential) members because of the perceived inefficacy of unions in bargaining for higher wages and better working conditions. The decline in membership means less financial and human resources available to unions, and since union members are believed to have an influence on the political engagement of various groups like family members, friends, and co-workers, and through them the wider public, then less members and less financial resources mean less influence on those groups, and consequently on voter turnout.

¹ Arguably, events like the defeat of the miners strike in the UK in the mid-eighties of the 20th century contributed to the decline in union membership not only in the UK but also elsewhere. The strike was highly publicised and certainly the labour movement around the world was aware of it. Hence, the defeat of the strike in the UK must have made sections of the working classes disillusioned with the unions, and question their abilities to win disputes.

4 Model and data

As mentioned in the introduction, empirical studies consistently point at the positive impact of union membership on voter turnout. However, the literature fails to take into account the factors that influence union membership. The present paper, while it agrees with the consensus that union membership determines voter turnout, it argues that economic policies, via the socio-economic conditions they create, affect union membership which, in turn, influences voter turnout. To test this hypothesis the following model is considered

$$VT_{i,t} = \beta_0 + \beta_1 UD_{i,t} + \beta_2 X_{i,t} + u_{i,t} \quad (1)$$

$$UD_{i,t} = \alpha_0 + \alpha_1 Z_{i,t} + \alpha_2 X_{i,t} + \epsilon_{i,t} \quad (2)$$

where VT stands for voter turnout, UD is union density, and Z is the annual change in the GDP deflator. X is a vector of covariates that affect both VT and UD .

The dependent variable in Equation 1 is the ratio of voters to the voting age population in parliamentary elections, and the data is obtained from the IDEA (2018) dataset. The choice of parliamentary elections is motivated by the fact that irrespective of whether the political regime is presidential or parliamentary, all countries hold parliamentary elections. Since countries hold elections in years that do not necessarily coincide with the years selected for the collection of data for this paper (I shall refer to those years as the years of reference), the initially compiled dataset on voter turnout contained some gaps. To minimise the loss of data, the gaps are filled with the figures relative to the closest year to the year of reference. When two data points are available around the year of reference, the gap is filled with the average. The gaps filled with averages represent a little over 18% of the data.

The same treatment is applied to the independent variable Union density. UD is the ratio of unionised workers to the total number of workers, and the data on it is obtained from Visser (2019). Like voter turnout, there are some gaps in the data, and they are filled with data relative to the closest year to the year of reference or, in a tiny minority of cases, averages when there are two figures around the year of reference. The filled gaps in the UD data represent only 5.6% of the data. The treatment applied to the data on voter turnout, and union density is unlikely to compromise the quality of the empirical results since the data shows that the two variables are relatively stable over short periods of time.

The instrumental variable Z is the annual change in the GDP deflator, and it is used as a measure of the extent to which the macroeconomic policies are expansionary (or contractionary). Like the Consumer Price Index (CPI), the GDP deflator is a measure of inflation. However, unlike the CPI, the GDP deflator accounts not only for the change in prices paid by consumers, but also the government and businesses. As it is known, the steady increase of the GDP deflator over the post-war period was primarily driven by government spending (Hamburger and Zwick, 1981; Schuknecht, 1995) and the low, even negative, interest rates (Reinhart and Sbrancia, 2015). Therefore, the increase in the GDP deflator over the post-war period is reflective of the impact the expansionary policies had on the level of prices. Similarly, when the expansionary policies were abandoned in favour of contractionary policies, the GDP deflator reflected that.

The second reason for choosing the annual change in the GDP deflator as an instrument is that it is unlikely that the voter thinks about the level of price in the economy or its annual change rate. What the voter might have on mind the day of the election is the purchasing power of his or her income, that is real income but not the price level or its annual change per se. In fact, several studies that examine the determinants of voter turnout include a measure of inflation as a ‘measure of the economy’ find insignificant results (Arcelus and Meltzer, 1975; Gray and Caul, 2000; Chappell and Veiga, 2000; Kostadinova, 2003; Cebula, 2004; Mutz and Mansfield, 2024, for example). Applying the extreme bounds analysis with the Sala-i-Martin criteria, Frank and Martínez i Coma (2023) run over 1.17 million regression and find that in as high as 85% (FE method) to 87% (RE method) of the cases inflation has an insignificant impact on voter turnout. Moreover, the authors note that the inclusion of inflation in voter turnout models as an explanatory variable lacks theoretical foundations. The present paper argues that inflation in and of itself is unlikely to explain voter turnout, but other variables that are affected by it do.

Third, the annual change in the GDP deflator and Union density are correlated, hence the instrument satisfies the relevance condition. Table 3 reports the output of a simple regression of Union density on the annual change in the GDP deflator. The results show that the relationship between the two variables is positive and statistically significant. Note that a version of the model that includes the independent variables represented by the vector X in equations 1 and 2 is reported in Table A1 in the Appendix, and the results are qualitatively similar: there is a positive and statistically significant relationship between the GDP deflator and Union density.

Table 3: Union density (*UD*) and the annual change in the GDP deflatorDependent variable: Union density (*UD*)

	Coef.	Std. Err.	z-stat	P>z	95% Conf. Interval
GDP deflator, annual change	0.0028***	0.0006	4.86	0.000	[0.0016 0.0039]

Notes: Random effects regression. Number of countries: 20. Number of observations: 226. The symbol *** represents the 1% level of significance. Software: Stata/SE 15.1, 2020.

Lastly, if the GDP deflator is significantly associated with the dependent variable Voter turnout, then it does not qualify as an instrument. The instrumental variable should be positively and significantly associated with Union density, but uncorrelated with Voter turnout. To test for that, Equation 1 is estimated using the Fixed effects (FE) and the Random effects (RE) methods with the GDP deflator included as an explanatory variable. The results of the regression reported in Table 4 show that the coefficient on the GDP deflator is insignificant irrespective of the method of estimation used.

Table 4: Estimation of equation 1 with the annual change in the GDP deflator included as an explanatory variable

Dependent variable: Voter turnout

<i>Fixed effects method (FE)</i>	Coef.	Std. Err.	t-stat	P>t	95% Conf. Interval
GDP deflator, annual change	0.00054	0.00036	1.51	0.131	[-0.00016 0.00124]

<i>Random effects method (RE)</i>	Coef.	Std. Err.	z-stat	P>z	95% Conf. Interval
GDP deflator, annual change	0.00049	0.00036	1.37	0.171	[-0.00021 0.0012]

Notes: Other controls are included in both regressions, but their coefficients are not reported for space consideration. The full results are available upon request from the author. For both regression methods: number of countries: 20. Number of observations: 224. Software: Stata/SE 15.1, 2020.

The data on the GDP deflator is obtained from the OECD (2023) dataset. For each year of reference, the annual change in the GDP deflator relative to that year is used. However,

since the OECD database does not offer data before 1960, which is the first year of reference, the figures relative to the annual change in the GDP deflator between 1960 and 1961 are used instead.

Following other studies, the vector X in Equations 1 and 2 consists of an array of controls including a measure of no education, two voting-age groups expressed as shares of the voting-age population, and the female share of the population. The data on no education is obtained from Barro and Lee (2013), the shares of the voting-age groups is constructed using data from the UN (2017) dataset, and the data on the female share of the population is obtained from the World Bank (2023). The vector X also includes a measure of unemployment. Due to the unreliability of data on the rate of unemployment, a proxy of the variable is constructed using data on the 'number of persons engaged' from the Penn World Table (Feenstra et al., 2015), and data on the population at the age of employment from the UN (2017) dataset.

The data is collected for a sample of 20 industrialised democracies (The sample of countries is reported in Table A2 in the Appendix) for 12 points in time between 1960 and 2015 at five-year intervals (i.e. 1960, 1965, 1970, 1975,..., 2010, 2015). The choice of intervals of that length is constrained by the data on schooling (Barro and Lee, 2013) and the age groups (UN, 2017) which is available every five years. The sample of countries used in the present paper represents the majority of the industrialised democracies including the major ones like France, Germany, Japan, the UK, and the US. The choice of the sample period is constrained by the availability of data. The OECD dataset from which the data on the GDP deflator is obtained does not offer data before 1960. Moreover, the data on union density from the Visser (2019) database ranges between 1960 and 2018.

5 Results and discussion

The results of the regression are reported in Table 5. The estimated coefficients are consistent in their signs and (in)significance across all specifications. The coefficient on the variable Unemployment is negative and strongly significant. As noted in the previous section, due to the unreliability of the data on unemployment a proxy of the variable is constructed. The negative coefficient on Unemployment suggests that societies with higher levels of economically inactive people tend to have lower levels of voter turnout. One way of rationalising this result is that societies with higher levels of unemployed people tend to have less faith in the electoral system and are more alienated from it compared to societies where the rate of unemployment is lower. The feeling of alienation might stem from the perception that elections change nothing. Not

participating in elections can, therefore, be seen as a form of a passive protest against the socio-economic system.

Table 5: Voter turnout (*VT*) and Union density (*UD*)

Voter turnout (<i>VT</i>)	(1)	(2)	(3)	(4)	(5)
Intercept	0.659*** (0.017)	0.656*** (0.027)	-0.671 (0.519)	-0.696 (0.508)	-1.182* (0.682)
Union density (<i>UD</i>)	0.306*** (0.043)	0.311*** (0.041)	0.224*** (0.041)	0.231*** (0.040)	0.590** (0.291)
Unemployment			-0.003*** (0.001)	-0.002*** (0.001)	-0.004*** (0.001)
No education			-0.001 (0.001)	-0.001 (0.001)	-0.002 (0.002)
Population aged 20 to 39			0.844*** (0.112)	0.832*** (0.111)	0.601*** (0.232)
Population aged 40 to 59			0.416** (0.188)	0.427** (0.189)	0.631** (0.279)
Female population			1.851* (0.987)	1.885** (0.961)	2.568** (1.296)
Country dummies	N	N	N	N	Y
Estimation method	FE	RE	FE	RE	RE-IV
F-statistics	50.28		26.16		
Prob > F	0.000		0.000		
Wald χ^2		56.58		157.36	919.91
Prob > χ^2		0.000		0.000	0.000
Number of countries	20	20	20	20	20
Number of observations	224	224	224	224	224

Notes: Columns 1 and 3 report the Fixed effects GLS regression results, and Columns 2 and 4 report the random-effects GLS regression results. Column 5 reports the G2SLS Random-Effects IV regression (RE-IV regression) results. The instrumental variable is the annual change in the GDP deflator and the instrumented variable is Union density (*UD*). The first stage of the RE-IV regression is reported in Table A1 in the Appendix. The RE-IV regression includes country dummies, but the coefficients are not shown

for space consideration. The letters N and Y stand for No and Yes, respectively, and they indicate whether country dummies are included or not in the regression. The standard errors are reported between brackets. The symbols ***, **, and * represent the 1%, 5%, and 10% levels of significance, respectively. Software: Stata/SE 15.1, 2020.

The empirical findings show that countries with higher levels of uneducated people are not any different in terms of voter turnout from countries with lower levels of uneducated people. This is hardly surprising, since having no formal education does not necessarily mean political illiteracy or the inability to perceive the benefits, if any, of the electoral process and participate in it.

Three voting-age groups expressed as shares of the voting-age population are constructed using data from the UN (2017) dataset, that is the populations aged 20—39, 40—59, and 60+ each divided by the population aged 20 and older. There is evidence that countries with higher shares of the population aged 20 to 39 and 40 to 59 tend to be associated with higher levels of voter turnout (Columns 3 to 5). Since the coefficients associated with those age groups are positive and statistically significant, then the coefficient associated with the omitted group, aged 60+, should be negative. The obvious explanation of this result is that the elderly, who tend to be less mobile than their younger and middle-aged peers, are less likely to participate in the electoral process.

The empirical literature, which in its majority employs individual-level data, report inconclusive results about the participation of both sexes in elections. For example, Rosenfeld (2010) finds that US females are more likely to participate in elections than males. However, Kerrissey and Schofer (2013) and Leighley and Nagler (1992) find that females tend to participate less in elections than their male peers. On the other hand, the findings of D'Art and Turner (2007) show that the voting behaviour of males compared to females is statistically not different. However, using aggregate data, the findings of this paper show that the coefficient associated with the female share of the population is consistently positive and statistically significant across specifications 3 to 5. This result indicates that the higher the share of the female population the higher the level of voter turnout, which can be interpreted as females are more likely to vote than males. GIWL (2019) observes that women have greater longevity compared to men making the elderly vote more a female vote (GIWL, 2019). However, since the present paper uses nation-level data, that interpretation is problematic. Irrespective of which share of the population (female or male) is higher, it is unknown which sex is more likely to participate in elections than the other. One can think of a scenario where the male (female) share of the population is higher, but the majority of the voters are female (male). A plausible explanation of the positive coefficient associated with the female share of the population and compatible with the macro-data employed in this paper

should appeal to the fact that in the countries of the sample, women gained their political rights, including the right to vote, much later compared to males. Perhaps in societies where the share of the female population is higher, campaigning for women's political rights was more intense and therefore those societies are more appreciative of the struggles for those rights and the rights themselves, hence the higher level of voter turnout.

The results of the regression reported in Columns 1 to 5 in Table 5 suggest that the variable Union density has a positive impact on voter turnout. The estimated coefficient is consistently positive and significant across the five specifications, and this is in agreement with the findings of the literature including the strand of it that uses individual-level data (Delaney et al., 1988; Leighley and Nagler, 1992; Radcliff, 2001; D'Art and Turner, 2007; Gallego, 2010; Kerrissey and Schofer, 2013, 2018; Frank and Martínez i Coma, 2023, for example). Of the five specifications, Column 5 reports the results of the Random Effects IV regression (RE-IV regression). The Random Effects technique is chosen based on the results of a Hausman test involving specifications in Columns 3 and 4. The null hypothesis being tested is $H_0: \hat{\beta}_{FE} - \hat{\beta}_{RE}$ is not systematic. The results of the test show that the χ^2 statistic = 8.57 and the Prob > χ^2 = 0.1992 which means that the hypothesis that FE is more appropriate is rejected in favour of the RE technique. In Column 5 the instrumented variable is Union density, and the instrument is the annual change in the GDP deflator. Expectedly, the relationship between the two variables is positive and statistically significant as shown by the results of the first stage of the regression reported in Table A1 in the Appendix. Together, the first and the second stage of the RE-IV regression confirm the hypothesis of this paper, namely expansionary (contractionary) economic policies create an environment of social security (insecurity) which is conducive (detrimental) to the growth of labour unions, which, in turn, have a positive (negative) impact on voter turnout.

A comparison of the regression results shows that the coefficient on Union density in the RE-IV regression (Column 5) is larger than the coefficient associated with the same variable reported in Column 4. It is likely that there is an omitted variable that is correlated with both Voter turnout and Union density in specification 4, and its omission means that its effect is picked up by Union density, hence underestimating the direct effect of Union density on Voter turnout (downward bias). The use of the annual change in the GDP deflator as an instrument should address that problem and produce an unbiased estimate of the causal effect of Union density on Voter turnout.

6 Concluding remarks

A large body of empirical literature on the relationship between union membership and voter turnout has been produced over the past decades. Hypothesising a sense of causation that runs from the former to the latter, the literature consistently points at the positive impact of unions on voter turnout. However, in examining that impact the literature fails to account for the factors that influence union membership.

The findings of this paper show that economic policies play a role in determining the size of the unions (i.e. union membership) through the socio-economic environment those policies create. Specifically, expansionary economic policies like those that were implemented during the post-war period create a sense of security among workers by creating jobs and providing basic social services. In such socio-economic environment, unions grow in size and strength and this, in turn, has a positive impact on voter turnout.

The decline in voter turnout is indirectly determined by the Neoliberal policies that has been implemented since the early 1980s. The widespread poverty and unemployment caused by the 1939-45 war compelled the ruling classes to make concessions to labour in the form of full employment and basic social services (e.g. democratisation of education, provision of universal and free health care) in exchange for social peace. Over a period of three decades the labour movement grew in size and strength, something the ruling classes were concerned about and sought to combat, and the instrument that has been used to do so is the Neoliberal policies. Those policies have created an environment of social insecurity (i.e. job insecurity, the dismantling of the welfare system) with dire consequences for labour including the decline in union membership. To quote Alan Budd, an economic advisor to Thatcher, “the 1980s policies of attacking inflation by squeezing the economy and public spending were a cover to bash the workers. Britain created what Marx called ‘an industrial reserve army,’ ... the effect of which was to undermine the power of labour and permit capitalists to make easy profits thereafter.”¹ Sharing the views of Budd, Joseph Stiglitz, once the chief economic advisor to Clinton, notes that with the Neoliberal policies “we did manage to tighten the belts of the poor as we loosened those on the rich.”²

As a result of the attack on labour, voters grew alienated from the political process including participating in elections that have been increasingly perceived as useless in changing things. As Samir Amin notes, in the age of consensus voting right or left, voting liberals or conservatives “makes no real difference when your future does not depend

¹ Alan Budd cited in Harvey (2007), p. 59.

² Joseph Stiglitz cited in Harvey (2007), p. 51.

³ Amin (2005), p. 68.

on your electoral choice but on the uncertainties of the market.”³ Amin’s view is not that of academics and thinkers only, it is also the view of politicians and policymakers. Commenting on the victory of the left-wing coalition Syriza in Greece in 2015, Wolfgang Schäuble, the former German finance minister, stated: “elections change nothing, there are rules.”

Schäuble’s statement is a description of a reality where labour unions in most countries are weak to play their traditional role as a counterweight to capital. For political participation to have a meaning, the focus should be placed on policies that lead to the empowering of labour and that can be achieved, among other things, through improving the working conditions and pay of the working class. In that sense, the low levels of union membership and voter turnout should be understood as symptoms of the much deeper problem which is the socio-economic crisis that is caused by the contractionary economic policies that have been implemented since the early 1980s with its dire consequences for the labour movement in particular, and the masses in general.

One recent publication that attempts to address the socio-economic crisis and its political manifestation is a report published by the Clean Slate for Worker Power project of the Harvard Law School (Block and Sachs, 2020). In order to “build a just economy and democracy,” the publication recommends policies that target the strengthening of collective action rights, improving representation in the workplace, and reforming corporate law among other things. In summary the report proposes a pact similar to that of the welfare state of the 20th century: an arrangement whereby labour is strong to play a counterweight to capital, hence building the “just economy and democracy” the report envisions (Block and Sachs, 2020). However, the objective conditions of today are radically different from those of the post-war period, and this begs the question of whether another edition of the welfare state is possible.

Appendix

Table A1: Results of the first stage of the RE-IV regression reported in Table 5

Union density (<i>UD</i>)	Coefficient	Standard error
Intercept	1.342	0.889
GDP deflator, annual change (<i>Z</i>)	0.0014**	0.0006
Unemployment	0.002**	0.001
No education	0.001	0.002
Population aged 20 to 39	0.524***	0.193
Population aged 40 to 59	-0.577	0.318
Female population	-2.452	1.688
Country dummies	Y	
Wald $\chi^2(25)$	846	
Prob > χ^2	0.000	
Number of countries	20	
Number of observations	224	

Notes: The results are relative to the first stage of the G2SLS Random Effects IV regression reported in Column 5 in Table 5. Country dummies are included, but the coefficients are not shown for space consideration. The symbols *** and ** represent the 1% and 5 % levels of significance, respectively. Software: Stata/SE 15.1, 2020.

Table A2: The sample of countries

Australia	Germany	Luxembourg	Spain
Austria	Greece	Netherlands	Sweden
Belgium	Ireland	New Zealand	Switzerland
Finland	Italy	Norway	United Kingdom
France	Japan	Portugal	United States

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