POLITICAL PARTISANSHIP AND CORPORATE PERFORMANCE[*]

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Abstract

We present evidence that the political orientation of the government (left vs. right) affects corporate performance. We select four policy dimensions traditionally viewed as 'leftist': stringent labour and environmental laws, higher taxes and interest rates. We document that industries that are more sensitive to such policies underperform when left parties are in power. We also account for the fact that not all 'leftist' legislation is enacted by left governments. Our results remain robust when we account for potential endogeneity between political and corporate outcomes.

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Politics, it seems to me, for years, or all too long, has been concerned with right or left instead of right or wrong.
Richard Armour

1. Introduction

Left parties have often been viewed by economists as being less 'business-friendly' than their right-oriented counterparts. They have historically been associated with stringent labor and environmental legislation,[1] and, higher taxes and interest rates.[2] Yet, evidence of the impact of ruling party orientation on financial outcomes is, at best, mixed. Santa Clara and Valkanov (2003) document significantly higher stock returns under Democratic presidencies. Snowberg, Wolfers, and Zitzewitz (2007) find higher equity prices and US dollar exchange rates under Republican presidencies.[3]

The lack of consistent evidence is especially puzzling given the growing literature on the impact of political uncertainty on financial outcomes (e.g., Julio and Yook (2012), Boutchkova et al. (2012), Pastor and Veronesi (2012)). This literature shows a material impact of uncertainty regarding party orientation and policies. Yet, there is no unambiguous evidence on the impact of actual (realized) party orientation through its policies.[4]

We believe that the lack of such evidence is due to a number of issues. *First*, it is intuitive to assume that not all firms are equally sensitive to ruling party orientation and the policies it implements. More specifically, firms may not be uniformly affected by (presumably) adverse effects of leftist policies. Second, it has been documented in the literature[5] and confirmed by our analysis, that the link between leftist legislation and ruling party orientation is sometimes weak. *Third*, much of the existing literature analysing the effects of government partisanship uses a dummy variable approach for 'left-right' classification, thus ignoring some potentially important characteristics (e.g., coalition governments or legislative and executive branches being controlled by different parties).

We address all three of the above concerns in our empirical tests. For the first issue, we posit that 'leftist' legislation has four dimensions. *Labour legislation*: Left governments are traditionally associated with pro-labour policies (Botero et al. (2004), Rueda (2005)). More labour-intensive industries are hypothesized to have greater sensitivity to potentially adverse effects of stringent labour legislation. *Environmental legislation*: Shipan and Lowry (2005) and Neumayer (2004) suggest that left parties are more likely to enact rigid environmental

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[1] Botero et al. (2004), Rueda (2005), Shipan and Lowry (2005).
[2] Alesina (1987), Alesina and Rodrick (1997).
[3] Notably, much of the evidence in this literature is based on US data. Our analysis of international data, which may differ by political-economic system (presidential vs. parliamentary) provides another view.
[4] A simple t-test comparing return on assets of industries in our sample did not yield significant differences between left and right governments.
[5] See, for example, Hibbs (1977), Bobbio (1996), Faust and Irons (1999), and Pagano and Volpin (2005).

legislation, which, we hypothesize, will adversely affect highly polluting firms.[6] *Corporate tax rates*: Alesina (1987) and Djankov et al. (2010) document higher corporate tax rates under left governments. We expect firms with higher gross profit margin to experience the most adverse effects of increased corporate tax rates. *Interest rates*: Left governments are traditionally associated with higher interest rates (Alesina and Rodrick (1997)). We hypothesize that firms more affected by the cost of borrowing – that is, firms with high leverage – will experience a drop in performance when interest rates are increased due to political pressure.[7]

For the second issue, we note that history is ripe with examples of legislation traditionally associated with left governments, actually being passed when right governments were in power (see, for example, Pagano and Volpin (2005), and Bobbio (1996)). We believe that such imperfect correlation between ruling party orientation and the policies it implements is yet another reason for the lack of a well-established relationship between ruling party orientation and corporate performance. Moreover, simply including the policy as an explanatory variable for performance would ignore variation in governments' enforcement actions. Perhaps left-oriented governments enforce labour or environmental policies more stringently. Therefore, a more complete measure of left orientation of government policies would seem to be the party orientation.

We address this issue by performing two-stage regressions. In the first stage, measures of 'leftist' policies (labour and environmental strictness, corporate tax rate and short-term interest rate) are regressed on the measure of left party orientation. In the second stage, we separately examine the influence of leftist legislation explained and unexplained by ruling party orientation.[8]

Finally, some of the literature on political cycles in economics and finance relies on a simple dummy variable approach to indicate 'left' ruling party orientation. While intuitive, such an approach ignores more complex government structures, i.e. when no party has an

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[6] We do not dispute potential social benefits of environmental and labour policies, however, the analysis of such benefits is beyond the scope of this paper.

[7] The concept of political sensitivities has been utilized in the literature before. Boutchkova et al. (2012) document that more export-dependent, labour-intensive, and contract-dependent industries exhibit higher volatilities in times of high political risk. Julio and Yook (2012) find that more politically-sensitive firms experience sharper drop in investments in election years. Belo, Gala, and Li (2011) document that industries more dependent on government purchases perform better under Democratic administrations.

[8] Our simple tests of the link between party orientation and policy measures produce ambiguous results. While labour and environmental legislations are significantly stricter under left governments, we do not document clear-cut relationships in case of taxes and interest rates.

outright majority or when no single party controls all government branches.[9] Richer measures of government party orientation have been developed in the political science literature, but are rarely applied in economics and finance.[10] To address the issue, we develop a 5-point scale for party orientation (based on the work of Woldendorp et al. (1998)), with a score of 5 corresponding to left-wing dominance, and a score of 1 representing right-wing dominance.

Overall, we expect industries more sensitive to leftist policies to perform worse when left parties are in power and enact such policies. More specifically, labour-intensive industries, industries emitting high quantities of pollutants, industries with high gross profit margin, and industries with high leverage are expected to perform worse and experience lower returns under left governments.

Our results are consistent with the main hypothesis. We document that more labour-intensive industries have lower valuation (measured by Tobin's Q), lower realized stock returns, and worse accounting performance (measured by ROA) when left governments are in power. We posit that stringent labour legislation (often introduced by left governments) creates rigidities in operations of labour intensive industries, increasing labour costs and making labour force adjustments more difficult. Furthermore, to empirically assess this channel, and to account for the fact that not all pro-labour legislation is passed under left governments, we regress labour law rigidity on left party orientation index. We confirm that explained part of the labour law has a significant negative influence on all three performance measures.

Polluting industries (industries with lower environmental responsibility rankings) also perform worse under left governments, with industry valuation and accounting performance affected adversely. This is not surprising, as stringent environmental legislation (which taxes pollution or restricts environmentally-unfriendly operations altogether) is traditionally associated with left governments. Moreover, we find that the rigidity of environmental regulation *explained* by left party orientation has a significant negative effect on industry valuation.[11] This is consistent with stronger enforcement of environmental penalties by left governments.

Left governments have also been viewed as favouring higher corporate taxes. We document that industries with high average gross profit margin (thus, the ones most adversely

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[9] For example, a dummy variable approach would therefore classify US ruling party orientation as 'left' both before and after the 2010 US Congressional elections, even though Democrats lost control of the House of Representatives in that election.

[10] Some exceptions are Arin et al. (2012) and Tavares (2004).

[11] Stringent environmental legislation may, in principle, make an industry more competitive internationally in the long run. Analysis of such long-term effects is, however, beyond the scope of this paper.

affected by any increases in corporate tax rates) have lower industry valuations and return on assets under left governments. Again, the *explained* (by left party orientation) portion of taxes has a significantly negative effect on performance, consistent with the enforcement mechanism.

Finally, high interest rates, which may also be associated with left governments, increase the cost of borrowing. We hypothesize that this will have the most adverse effect on highly leveraged industries. We indeed document that those industries have lower valuations and lower returns under left governments. As with the other three sensitivities, we decompose the interest rates into portions explained and unexplained by the left party indicator. The explained interest rates have a significantly negative effect on industry valuation and stock returns. Unlike labour, environmental, and tax rate channels, interest rate influence is not directly legislated by the government. Therefore, our analysis is conditioned on the degree of independence of the central bank within a country. We expect the interest rate channel to have a stronger effect in countries with a lower degree of independence. The results are consistent with such an assertion.

It is important to note that sensitivities to ruling party orientation can themselves be endogenous to political environment. For example, when faced with stringent labour laws, industries may choose to reduce labour intensity. Therefore, the link between political sensitivities and performance may be obscured. We address the issue in a way similar to Rajan and Zingales (1997): Political sensitivities are computed for a country with relatively lax legislation and extrapolated onto other countries (Boutchkova et al. (2012) use a similar approach when analyzing politically-induced stock return volatility).

We subject our findings to a number of robustness checks. We account for potential endogeneity between economic performance and ruling party orientation by instrumenting party orientation index. We also regress party index on past economic variables and use fitted values. We perform the analysis on sub-samples of presidential and parliamentary systems, control for tax evasion, hedging of interest rate risk, and state ownership.

We believe the results presented in this paper contribute to the argument on whether ruling party orientation matters for corporate performance. Left governments, by implementing a range of 'leftist' policies adversely affect accounting and stock performance of a range of firms exposed to such policies. The results have implications for corporate decision-making, as they highlight that the choice to engage in certain lines of business may be disadvantageous under certain governments. Our findings may also invite formal asset pricing tests, as they indicate that party orientation may be a priced factor.

The rest of the paper is organised as follows. Section 2 describes measures of industry sensitivities to government partisanship. Section 3 presents variables and empirical specification. Section 4 describes the results. Robustness is addressed in section 5. Section 6 concludes.

2. Government Partisanship Sensitivities

The main premise of our paper is that not all industries are equally affected by party orientation of the government. We now introduce four industry-level sensitivities to left party orientation: labour intensity, pollution intensity, corporate tax rate sensitivity, and interest rate sensitivity. Our panel sample is constructed at the industry level using 57 2-digit SIC industries from 50 countries during the years from 1990 through 2006.

2.1 Labor Intensity

Variation in the cost of labour across political leanings may be substantial. Furthermore, attitude towards labour regulation is often used as one of the factors in determining party orientation. Left governments have traditionally been associated with stricter labour legislation (Botero et al. (2004), and Rueda (2005)).[12]

Stringent labour legislation, in turn, has adverse effects on firms. Atanassov and Kim (2009) find that strong labour laws lead to asset sales for poorly performing firms in order to prevent large scale layoffs. Boutchkova et al. (2011) document higher volatility for labour-intensive industries under left governments. Stringent labour laws may increase the cost of operations (through wage legislation), and make labour-capital substitution more difficult (through rigidities in hiring and firing workers). We thus expect labour-intensive industries to exhibit worse performance when left governments are in power.

Following Boutchkova et al. (2011), we compute labor intensity for industry *ind* by dividing the value of labor inputs over the total value of production inputs, $vl_{ind} / (vl_{ind} + vk_{ind} + ve_{ind} + vm_{ind})$, where vl_{ind}, vk_{ind}, ve_{ind}, and vm_{ind} denote the values of labor inputs, capital services, and intermediate inputs, such as energy and materials, respectively. Data are obtained from the input–output database developed by Dale W. Jorgenson and described in Jorgenson (1990) and Jorgenson and Stiroh (2000). The authors assembled a detailed dataset of values on labor, capital, energy, and material inputs, using information from the Bureau of Economic Analysis and Bureau of Labor Statistics. The dataset covers thirty-two sectors at the two-digit SIC level from 1959–2005. We use the data from 1990–2005.

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[12] Other studies that document pro-labour attitude of left governments are Laver and Budge (1993), Alvarez, Garrett and Lange (1991), and Alt (1985).

Labour intensity could be endogenous to political environment.[13] In countries with strict labour legislation (which is, presumably, passed by left parties), firms may choose to employ fewer workers than they would otherwise. Therefore, we estimate labour intensities in the sample of US industries, and extrapolate them on industries in other countries. Therefore, we assume that US labor laws are more liberal than in other countries.[14] As a robustness check, we compute labour intensities using country-level data.

Column 6 of Table 2 reports labour intensities. The average value of labour intensity is 0.275. Petroleum refining is the least labour-intensive industry (value of 0.057); while measuring instruments (0.501) is the most labour-intensive industry.

2.2 Environmental Legislation Sensitivity

Left governments have traditionally been associated with legislation targeted at tightening environmental standards (e.g., Shipan and Lowry, 2001). Such legislation may include taxation of environmentally-unfriendly activities, pollution quotas, and outright bans on certain pollution types. We posit that less environmentally-friendly firms will be adversely affected by the enactment of such legislation.

We use MSCI ESG database ratings (based on Intangible Value Assessment (IVA) methodology) to compute environmental sensitivity. The data is compiled by Innovest Strategic Value Advisors. The environmental category encompasses the following attributes: beneficial products and services (measures the positive environmental impact of a firm's products and services), pollution prevention (measures a firm's method of mitigating non-carbon air emission and water waste from operations), recycling (measures a firm's use of recycled materials in its product and services), clean energy (measures a firm's policies regarding climate change), and management systems (measures a firm's environmental management policies). The index ranges from 0 to 10 with larger values indicating greater environmental responsibility. We subtract the original index from 10 so that higher values represent less responsible ('dirtier') industries.

As with labour intensity, 'pollution intensity' may be endogenous to environmental legislation. In countries with strict environmental laws, firms that otherwise would choose

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[13] Consider the following example. Hotels industry is labour-intensive in the U.S. In Sweden, a country with much more stringent labour regulation, we expect this industry to perform worse because of such labour legislation. However, hotels industry is likely not to be as labour intensive in Sweden, as it is costly for it to hire many workers. Thus, the link between political environment, labour intensity, and performance will be obscured. Thus, we posit that hotels industry labour intensity observed in the U.S. is the *target* labour intensity for hotels in all countries. Rajan and Zingales (1998) use this approach analyzing the relationship between financial dependence and growth.

[14] According to the index of labor law strictness (defined later), the US market is the fourth from the bottom. Due to data paucity, we cannot calculate the labor intensity measure using the bottom 3 markets.

high levels of pollution, are forced to choose lower (and thus suboptimal) levels. In this case, we choose Canada, a country with fairly lax environmental legislation. Therefore, as with labour intensity, we estimate sensitivity to environmental legislation in the sample of Canadian industries (based on 1,017 firms), and extrapolate the measure on industries in other countries.

Column 9 of Table 2 reports environmental responsibility rankings. The average value is 5.41. Food products (SIC 2000) have the highest value (7.31), whereas Miscellaneous retail (SIC 5900) has the lowest value of 0.39.

2.3 Corporate Tax Rate Sensitivity

Fiscal policy is a contentious issue in many electoral campaigns. Parties on the left side of the political spectrum are traditionally linked with higher corporate tax rates (Alesina, 1987; Djankov et al., 2010). High corporate taxes, in turn, decrease after-tax income, and have an overall adverse effect on entrepreneurial activity (Djankov et al., 2010).

We expect industries with larger profit margins (and, thus, a larger tax base) to be more prone to adverse effects of increased tax rates. Thus, sensitivity to corporate taxes is measured by the ratio of EBIT to sales. Endogeneity between profit margins and corporate tax rates is a concern, as firms can manage their earnings in response to high taxes. However, an assumption that US corporate tax rate sensitivities can be extrapolated onto industries in other countries is unrealistic, as profit opportunities may differ substantially across countries.

Average corporate tax rate sensitivities are reported in column 7 of Table 2. The average sensitivity value is 0.06. Tobacco products (SIC 2100) has the highest sensitivity value of 0.21, whereas Membership organizations (SIC 8600) have the lowest value of -0.39.

2.4 Interest Rate Sensitivity

Alesina and Rodrick (1994) is one of the papers documenting higher interest rates under left governments. These higher rates, in turn, increase the cost of borrowing (Chappell and Keech, 1988; Alesina, Roubini and Cohen, 1997; Fowler; 2006, among others). We posit that firms with high leverage are more adversely affected by higher interest (possibly) associated with left governments.

We measure leverage by the ratio of total debt to total assets. To avoid endogeneity, we estimate leverage in the sample of US firms and extrapolate these values onto industries in other countries. Industry-level values are presented in column 8 of Table 2. Average value of

interest rate sensitivity is 0.21. Social services (SIC 8300) have the highest sensitivity of 0.49. Legal services (SIC 8100) have the lowest value of 0.001.

3. Variables and Empirical Specification

3.1 Dependent Variables

We employ a number of variables to assess the impact of political orientation on firm performance. The primary variable of interest is *industry value* defined by 2-digit SIC code industry median of firm Q. Firm Q is calculated as market value of equity and total assets less book value of equity over total assets. Firm Q takes into account current performance as well as future growth opportunities which may reflect future changes in partisanship. Therefore, we also measure performance by industry median return on assets (industry median of firm net income over total assets) which reflects realized performance. Finally, the first two measures of performance can be biased and not directly comparable across countries due to differences in accounting practices. Therefore, as an alternative measure of performance we use *stock returns* computed as the industry value-weighted average of annual firm returns. Accounting variables are from Worldscope while market data are from Datastream.

3.2 Political Environment

In the analysis of the impact of ruling party orientation on economic and financial outcomes, much of the existing literature has relied on a dummy variable approach. Such an approach ignores important dimensions of political environment, such as coalition governments. Measures that address such complexities have been developed in the political science literature (Woldendorp et al., 1993; Kim and Fording, 2002, to name a few), but are largely ignored in the empirical finance literature.

We develop a five-point index of political party orientation, based on a similar index in Woldendorp et al. (1993), and supplemented by the 'split government' variable in Leblang and Mukherjee (2005). The index takes on a value of one if (a) for presidential systems, president is 'right' and the right party controls houses with legislative powers, (b) for parliamentary system, chief executive is 'right', and government party controls more than 2/3 of the parliament. Index is equal to five in the opposite case – left party (or parties) are in control. Table 1 presents detailed definitions of all index values, and column 7 of Table 2

(panel B) presents average index values across countries. The average index value is 3.017. China and South Korea have the highest (left-most) index value of 5. Pakistan has the lowest (right-most) value of 1.137.[15]

3.3 Empirical specification

We regress the dependent variables (industry value, stock returns, and accounting performance) on the interaction of industry-level sensitivities to leftist policies with the index of political party orientation. Along with the levels of these variables and controls (described below), we include industry-, year-, and country-specific fixed effects to account for unobserved heterogeneity. The fixed effects methodology offers a number of advantages.

First, by controlling for fixed effects and effectively analyzing differences in industry performance *within* each country, the issues of model misspecification and omitted time-invariant variable bias (due to missing time-invariant unobserved country, industry, and year characteristics), common to cross-country setups, are mitigated Second, the sensitivity approach allows us to identify specific economically meaningful channels through which ruling party orientation affects industry performance.

The following panel regression is estimated.

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\begin{aligned}
DEP\_VAR_{i,j,t} = &\; \alpha_i + \eta_j + \mu_t + \beta \cdot SENSITIVITY_i \times LEFT_{j,t} \\
&+ \lambda \cdot SENSITIVITY_i + \theta \cdot LEFT_{j,t} + \gamma \cdot CONTROLS_{i,j,t} + \varepsilon_{i,j,t}
\end{aligned}
\tag{1}
$$

where *i* indexes industries, *j* indexes countries, and *t* years. Industries are defined at the two-digit SIC level. Such a setup allows us to examine whether industries more sensitive to leftist policies experience worse performance in countries and years when left governments are in power. Thus, the main regression coefficient of interest *(β)* measures the incremental decrease in performance[16] given a unit increase in sensitivity to leftist policies conditional on the country's ruling party orientation index. The standard errors are clustered by country, year, and industry to adjust for heteroscedasticity, time-series, and cross-sectional correlation. Industry-level control variables are included to capture differential performance. They are: log of total assets, R&D spending scaled by total assets, and past growth rate of sales. Detailed variable definitions are presented in Table 1.

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[15] As a robustness check, in a sample of countries with parliamentary systems, we use the percentage of seats held by left parties (Kim and Fording, 2002).

[16] Measured by Tobin's *Q*, stock returns, or return on assets.

3.4 How 'Left' is Left?

It has been well established in the literature that left parties are commonly associated with 'leftist' policies.[17] However, empirical evidence on the link between left party orientation and leftist policies is somewhat mixed. Pagano and Volpin (2005), Bobbio (1996) point out that left government orientation may not always be a good predictor of pro-labour legislation. Hibbs (1977) provides examples of tax hikes under Republicans, as well as tax cuts under Democrats. Faust and Irons (1999) provide a similar counter-example for interest rates.

In order to test the relationship between policy measures and ruling party orientation, for each country *j* we run the following regression:

$$LEFT\_POLICY\_VARIABLE_{j,t} = \eta_j + \mu_t + \beta \cdot LEFT_{j,t} + CONTROLS_{j,t} + \varepsilon_{j,t} \tag{2}$$

Left policy variables are:
Rigidity of employment legislation is from Doing Business Report database (World Bank). It is calculated as average values of three sub-indexes: difficulty of hiring index (applicability and maximum duration of fixed-term contracts and minimum wage for trainee and first-time employees); rigidity of hours index (scheduling of nonstandard work hours and annual paid leave); and difficulty of firing index (notification and approval requirements for termination of a redundant worker or a group of redundant workers, obligation to reassign or retrain and priority rules for redundancy and reemployment). This is a country annual index available for every country in the sample from 2000 through 2005.

Rigidity of environmental legislation. It is a country-level indicator of the use of "green' technologies from the IMD's World Competitiveness Report. It is the average value of the following categories: green technologies (item 4.4.19, "green technologies are quickly turned into competitive advantages"), pollution problems (item 4.4.24, pollution problems do not seriously affect your economy), and environmental laws (item 4.4.25, "environmental laws do not hinder the competitiveness of business"). It ranges from 0 to 10 with larger values indicating more rigid environmental legislation. This index is available for 45 counties from 2000 through 2006.

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[17] Botero et al. (2004), Rueda (2005), Shipan and Lowry (2001), Alesina (1987), and Alesina and Rodrick (1997) are but a few examples of this.

Corporate tax rates. We use three time invariant indexes from Shleifer et al. (2011). The indexes are statutory tax rate, 5-year effective tax rate and labor tax.

Real interest rates. Real interest rates come from the World Bank's WDI and they are calculated as 1-year nominal interest rates less inflation rate.
In every regression, we control for the log of real per capita GDP from the WDI.

Table C1 presents the evidence. Controlling for the log of GDP per capita and fixed effects, larger values of the left party orientation index are associated with stricter labor laws and environmental laws. The results are marginally significant though. Among the three tax variables, only labor taxes are significantly related to the left part orientation. Finally, real interest rates may be higher during periods of left parties in power. The coefficient on the left party index is positive but insignificant.

Thus, we posit that conflicting evidence regarding the influence of ruling party orientation on financial outcomes is, in part, due to imperfect link between party orientation and actual policies. We try to alleviate this by moving from cross-country design to within-country industry sensitivities design. To explicitly account for the imperfect link between party orientation and policies, we perform a two-stage least squares estimation. In the first stage, we regress the legislation measure (labour, environmental, tax, or interest rate) on party orientation index, collecting predicted values and residuals. In the second stage, we estimate the panel regression of the following form.

$$DEP\_VAR_{i,j,t} = \alpha_i + \eta_j + \mu_t + \beta \cdot SENSITIVITY_{i,j} \times LEFT\_LAW\_EXPLAINED_{j,t}$$

$$+ \delta \cdot SENSITIVITY_{i,j} \times LEFT\_LAW\_UNEXPLAINED_{j,t} \tag{3}$$

$$+ \lambda \cdot SENSITIVITY_{i,j} + \theta \cdot LEFT_{j,t} + \gamma \cdot CONTROLS_{i,j,t} + \varepsilon_{i,j,t}$$

The independent variable of interest is the interaction between sensitivity to leftist legislation and the *explained* (by ruling party orientation) part of the legislation. Similar to Equation (1), we include, time, industry, and country fixed effects, and cluster the standard errors.

4. Results

4.1 Labour Intensity

The results for labour intensity are presented in Table 3. The regression coefficients for the interaction term of labour intensity with party orientation index are negative and statistically

significant at the 1% level for all three performance measures. This implies that labour intensive industries have lower value, stock returns, and ROA when left governments are in power. This is consistent with our hypothesis.

It is important to note that the level of labour intensity is not significantly related to any of the performance measures. Likewise, party orientation in itself has no significant impact on performance, which highlights the relevance of sensitivity methodology, i.e. explicitly accounting for the fact that not all industries are equally exposed to ruling party orientation. The coefficients on the control variables carry the expected signs. Companies with high growth potential (smaller companies with high R&D levels) have higher valuation (as measured by Q), larger ROA, and larger realized returns. Companies with better investment opportunities (measured by past growth in sales) also perform better.

The results of decomposing labour legislation into parts explained and unexplained by the party orientation index are presented in Table 7. The independent variable of interest is the interaction between labour intensity and labour rigidity *explained* by ruling party orientation. The variable has a significantly negative impact on industry value (at the 1% level), and on stock returns (at the 10% level). The impact on accounting performance, while negative, is not statistically significant. Interaction of labour intensity with *unexplained* labour rigidity is significantly related (at the 10% level) to stock returns and ROA. We believe that such a difference in the impact of explained and residual labour legislation rigidity highlights the importance of taking into account the link between ruling party orientation and actual policy implementation.

4.2 Sensitivity to Environmental Legislation

The results are presented in Table 4. The interaction between sensitivity to environmental legislation and party orientation index has a negative and statistically significant effect on all three performance measures, which is consistent with our hypothesis. Industries more sensitive to environmental legislation have lower value, lower stock returns and ROA when left governments are in power. The level of the environmental sensitivity is positive which is consistent with the fact conjecture that 'dirtier' industries minimize costs.

The results from decomposing environmental legislation and ... are presented in Table 8. The interaction between sensitivity to environmental legislation with environmental legislation rigidity *explained* by ruling party orientation has a negative and statistically significant impact on all three performance measures. Interaction with *residual* environmental legislation rigidity, although negative, fails to reach statistical significance.

4.3 Corporate Tax Rate Sensitivity

The results are presented in Table 5. The independent variable of interest is the interaction term between corporate tax rate sensitivity and party orientation index. It has a negative and significant impact on stock returns and accounting performance. This is consistent with our expectations. The impact on industry value is negative, but not statistically significant. Notice that the *level* of corporate tax rate sensitivity is positively related to all of the performance measures. This is not surprising, as this sensitivity measure is essentially an alternative performance proxy.

The results of decomposition of tax rate sensitivity are presented in Table 9. The interaction of tax sensitivity with the *explained* part of tax rates has a significantly negative impact on all three performance measures. Interaction with *residual* corporate tax rates does not have a significant impact on performance.

The *level* of explained corporate tax rates (but not the residuals) has a negative and significant impact on performance. We believe this is consistent with the findings of section 3.4 – corporate tax rates are significantly related to ruling party orientation.

We control for the possibility that firms may evade taxes. However, it is likely that firms with the largest profit margins (and, thus, largest tax liabilities) will be more actively engaged in tax evasion. This would work against statistical significance of our findings. Nevertheless, we explicitly control for tax evasion measure constructed at the industry level. The measure is defined as corporate tax rate times net income minus reported tax liability, all scaled by total assets. The variables are obtained from OSIRIS. We calculate it for every firm, and take industry medians for every country. The coefficient on tax evasion measure is insignificant in most specifications. The coefficient of interest does not change noticeably.

4.4 Interest Rate Sensitivity

We present the results in Table 6. Interaction of interest rate sensitivity with party orientation has a significantly negative impact on industry value and stock returns, which is consistent with our expectations. Industries more exposed to interest rate movements have lower returns and value when left governments are in power. The impact on accounting performance is negative, but not statistically significant. The *level* of interest rate sensitivity has a positive impact on all performance measures.

The results of decomposition of interest rates are found in Table 10. Interaction of interest rate sensitivity with the *explained* part of interest rates is negative and significant for all

performance measures. Interaction with *residual* interest rates has a significantly negative impact on impact on industry value and stock returns.

Firms hedge their interest rate exposure. Therefore, there is a possibility that our measure of interest rate sensitivity is systematically related to the extent of hedging activity. We collect data from the footnotes of financial statements in OSIRIS. The footnotes indicate whether a company uses exchange rate derivatives and interest rate derivatives. If they do, we assign a value of 1 to that company. For each industry in the sample we compute the proportion of companies that use derivatives – this is our estimate of industry's hedging activity. The coefficient on this variable is mostly insignificant, and the significance of the main interaction term is not affected.

4.5 Abnormal Stock Returns around Elections

To further test the relevance of electoral outcomes, we perform an event study around the election dates (for all the elections in our sample). We identify the exact dates of elections and measure cumulative abnormal stock returns (CARs) over the period of (-1, +1) days around the elections. The abnormal returns are estimated using the market model:

$$R_t = \alpha + \beta \cdot R_{c,t} + \gamma \cdot R_{world,t}$$

(4)

for each country and election using daily returns 120 to 10 days prior to the election day. R_c is MSCI country value-weighted index and R_{world} is MSCI world value-weighted index. We then apply the coefficients to estimate $\hat{R}$, for $t = -1, 0. +1$, and estimate abnormal returns as the difference between actual and market-model returns.

For the sample of elections in which left candidates won, average CAR is -1.36%, statistically significant at 5% level. For the elections with a 'right' winner, average CAR is +0.75% and statistically insignificant.

We then regress CARs on 'left' winner dummy, electoral margin (defined as a difference in percentage of votes of winning party (and its coalition partners) and opposition party), their interaction, as well as per capita GDP and financial market development. As expected, 'left' winner dummy is negative and statistically significant. Electoral margin by itself is not statistically significant. However, its interaction with the 'left winner' dummy with electoral margin is positive and statistically significant. This implies that 'left' victories with a wide margin (the ones that can be viewed as less surprising) do not have such a profound effect on stock returns as do victories by a narrow margin. This is consistent with our expectations.

5. Robustness checks

5.1 Reverse Causality

Analysis of the impact of political environment on financial outcomes is hampered by potential reverse causality. Our results establish that government party orientation has a significant impact on performance of policy-sensitive firms. However, economic performance has a potentially strong impact on electoral outcomes. Our sensitivity approach analyses industry performance within each country and it is less likely that within-country *differences* in performance have a strong systematic impact on political variables.[18] Also, financial and economic variables are more likely to impact the likelihood of an incumbent party remaining in the office, rather than systematically affect the left-right distribution. We also run a Haussman test that rejects the hypothesis that party orientation is endogenous with respect to industry performance.

Nevertheless, we explicitly address potential reverse causality in a number of ways. First, we control for past economic performance by including a number of lagged economic variables. These variables are: real per capita GDP growth rate, inflation rate, external debt scaled by GDP, real GDP per capita volatility, and real exchange rate volatility.[19]

Second, we perform the analysis on sub-samples of presidential and parliamentary systems, as in the majority of countries with parliamentary systems electoral systems allow for 'called' elections, making strategic electoral timing possible.[20]

Third, we perform a two-stage regression. In the first stage, we regress the party orientation index on past economic variables. In the second stage, we use fitted values in interactions in equations (1) and (3). Our results remain robust.

5.2 Reverse Causality II: Instrumenting Party Orientation

In addition to the above tests, we instrument party orientation index in a number of ways. First, we use size of labour unions within a country. Presumably, left parties are more likely to be in power when unions are large.

Second, we use oil reserves. High oil reserves are likely to result in re-distributive pressures, making election of left-wing government more likely. Oil reserves by country are

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[18] Boutchkova et al. (2011) make a similar argument when analysing the impact of political variables on volatilities of politically-sensitive industries.

[19] Volatilities are computed using a 5-year rolling window. In addition, we include the 'rule of law' index obtained from the International Country Risk Guide.

[20] In addition, in the subsample of parliamentary systems, we employ an alternative measure of political orientation – a percentage of seats in the parliament held by left parties (Kim and Fording, 2002).

obtained from 2008 BP Statistical Review.[21] Notice that this instrument is time-varying. We confirm empirically that high reserve countries are more likely to elect leftist governments. In a country-year panel setting, we regress party orientation index on oil reserves, year fixed effects, real per capita GDP, and log of inflation (all independent variables are lagged by one year). Coefficients for lagged reserves is positive and statistically significant. Therefore, we confirm that party orientation is well explained by oil endowment. The first stage F-test (14.98) indicates that the instrument is not weak, and the Sargent J-test of overidentifying restrictions confirms that the instrument can be treated as exogenous. Main interactions of interest remain statistically significant in most specifications.

5.3 Multinational Corporations

Many firms have an option to shift a substantial part of their operations abroad through foreign subsidiaries. Such relocation decisions could be made for a number of reasons, among them – unfavourable domestic legislation. However, we believe that relocation due to political reasons would dampen significance of our findings.

In every regression, we control for the presence of foreign subsidiaries. Specifically, we calculate industry share of sales that come from foreign subsidiaries. The variable is constructed from OSIRIS segment files. This measure is computed for every industry and country and is used as a control variable. While the main interaction coefficients were not noticeably affected, the coefficient on this variable is positive and significant in most specifications. This is expected – drop in performance for is not as pronounced for firms with relocation opportunities.

5.4 State Ownership

Since state-owned companies can be less subject to value-destroying government policies, we control for state ownership. It is defined as a percentage of common shares of each firm held by the state. We then take industry averages. The data come from OSIRIS ownership files. The coefficient for this control variable is positive and significant in some specifications and insignificant in others. This provides limited support to the conjecture that state-owned companies are less affected by leftist policies. There is no noticeable change in magnitude or significance of the main regression coefficients of interest.

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[21] The results are virtually identical if we use other resources, specifically, metals. Metal reserves are obtained from the Bureau of Commodity Research (BCR). The BCR tracks 22 commodities, which are grouped into 7 indices: Metals, raw industrial materials, textiles, foods, fats, livestock, and a composite commodities index. The results are also robust if we use the composite index.

5.5 Interest Rate Channel

As interest rates are not directly legislated by the government, the magnitude of the interest rate channel depends on the degree of independence of central bank in a country. We rank country-years in the sample by the degree of central bank independence obtained from Polillo and Guillen (2005). We then perform the analysis in the quartiles of data with highest and lowest central bank independence. Using the Wald test of the regression coefficient equivalence between different sets of data, we find a significantly stronger effect of the interest rate channel in the quartile of country-years with low degree of central bank independence. This is consistent with our expectations. The difference in regression coefficients is even larger when we consider top and bottom deciles, rather than quartiles.

5.6 Developed versus Emerging Economics

It could be argued that the nature of the relationship between government partisanship and corporate performance differs in developed versus emerging markets. In particular, political connections (which we approximate with state ownership) could be of greater importance than ruling party orientation in a sample of emerging markets. To test this, we define emerging markets as bottom 1/3 of countries by real GDP per capita. Our results hold in emerging and developed sub-samples, with and without controlling for state ownership.

6. Conclusion

Interdependence of political and financial environments has been the subject of numerous academic inquiries. Whereas the impact of political uncertainty on performance measures (such as stock returns) and corporate decision-making (such as investments) has been relatively well established, the influence of ruling party orientation on financial outcomes is not clear-cut.

We posit that policies implemented by left parties will have detrimental effect on corporate performance. However, we explicitly account for the fact that not all industries are equally exposed to potentially detrimental effect of leftist policies. We assume that labour-intensive industries, highly polluting industries, industries with high profit margins (thus sensitive to corporate tax rates), and highly leveraged industries (thus sensitive to interest rates) will experience drop in performance when left parties are in power. Furthermore, we explicitly account for the fact that not all leftist legislation is passed by the left parties. We also account for potential complexities of government composition, thus going beyond the dummy variable definition of ruling party orientation.

We document that industries sensitive to leftist legislation experience lower valuations, stock returns and ROAs when left parties are in power and leftist legislation is enacted. Our results are robust when potential endogeneity between ruling party orientation and corporate performance is accounted for.

We believe our findings could be of interest to corporate managers when deciding to engage in activities potentially sensitive to party orientation, as well as to policy makers when considering certain policies in the presence of sensitive industries.

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Table 1. Variables, Definitions, and Sources

Variables	Definitions	Sources
Dependent variables		
Industry value (industry-level)	Measured by the sum of the market value of equity (stock price times the number of shares outstanding) and total assets less book value of equity over total assets. It is calculated as industry median values for every country and year.	Worldscope
Stock returns (industry-level)	Estimated from a one-factor market model as the difference between industry median return and country MSCI return. It is calculated for every country and year.	CRSP and Datastream
Accounting performance (industry-level)	Measured by return on assets which is net income over total assets. It is calculated as industry median values for every country and year.	Worldscope
Partisanship sensitivity measures		
Labor intensity (industry-level using firm U.S. data)	The ratio of the value of labor inputs to the total value of inputs (labor inputs, capital services, material inputs, and energy inputs), annual from 1990–2006.	Jorgenson (1990) and Jorgenson and Stiroh (2000). Data are available at http://post.economics.harvard.edu/faculty/jorgenson/data.html.
Sensitivity to tax legislation (industry level using firm U.S. data)	Measured by the sum of net income over total assets.	Compustat
Sensitivity to interest rates (industry level using U.S. firm data)	Measured by the sum of long-term debt and short-term debt over total assets.	Compustat
Sensitivity to environmental legislation (industry level using firm U.S. data)	Measured by the environmental category of the Social Corporate Responsibility index compiled by the MSCI ESG database. The index is based on Intangible Value Assessment (IVA) methodology, compiled by Innovest Strategic Value Advisors. The environmental category encompasses the following attributes: beneficial products and services (measures the positive environmental impact of a firm's products and services), pollution prevention (measures a firm's method of mitigating non-carbon air emission and water waste from operations), recycling (measures a firm's use of recycled materials in its product and services), clean energy (measures a firm's policies regarding climate change), and management systems (measures a firm's environmental management policies). The index ranges from 0 to 10 with larger values indicating greater environmental responsibility. Industry sensitivity is based on the sample of 3,094 U.S. companies and calculated as industry average values.	MSCI.s Environmental, Social and Governance (ESG) database
Political and legislative variables		
Party orientation index (country level)	A five-point scale defined as follows. 1. Presidential system: president is 'right' *and* controls houses with legislative powers. Parliamentary system: chief executive is 'right', and government party controls more than 2/3 of the parliament. 2. Presidential system: president is 'right' but does not control all houses. Parliamentary system: chief executive is 'right' and government party controls between 1/3 and 2/3 of the parliament. 3. Both systems: chief executive is 'centrist'. 4. Presidential system: president is 'left' but does not control houses. Parliamentary system: chief executive is 'left' and government party controls between 1/3 and 2/3 of the parliament. 5. Presidential system: president is 'left' *and* controls houses. Parliamentary systems: chief executive is 'left' and government party controls more than 2/3 of the parliament. The index ranges from 1 to 5 with larger values corresponding to more power of the leftist government.	Computed by authors. Raw data obtained from World Bank Database of Political institutions, Journal of Democracy, Elections around the World, Election Guide, CIA Factbook, the PARLINE Database on National Parliaments, Keesing's Record of World Events
Party orientation indicator (robustness, country-level)	A dummy variable equal to one in years when the chief executive's party orientation is classified as 'left', and 0 otherwise. Party orientation is determined according to the party of chief executive using the following rule: Right for parties that are defined as conservative, Christian-Democratic, or right-wing; Left for parties that are defined as communist, socialist, social-democratic, or left-wing; Center for parties that can be best described as centrist. Refer to Beck et al. (2001) for further details.	Computed by authors. Raw data obtained from World Bank Database of Political institutions, Journal of Democracy, Elections around the World, Election Guide, CIA Factbook, the PARLINE Database on National Parliaments, Keesing's Record of World Events

Table 1 continued

Rigidity of employment legislation (country-level)	It is calculated as average values of three sub-indexes: difficulty of hiring index (applicability and maximum duration of fixed-term contracts and minimum wage for trainee and first-time employees); rigidity of hours index (scheduling of nonstandard work hours and annual paid leave); and difficulty of firing index (notification and approval requirements for termination of a redundant worker or a group of redundant workers, obligation to reassign or retrain and priority rules for redundancy and reemployment). An annual index ranging from 0 to 100, where larger values corresponding to more rigid employment regulations.	Doing Business Report database (World Bank)
Corporate taxes (country-level)	Average corporate tax rates.	World Bank
Real Interest rates (country-level)	Annual real interest rate calculated as the difference between the average nominal interest rate and inflation.	World Outlook database (International Monetary Fund)
Rigidity of environmental legislation (country-level)	Country indicator of the use of "green" technologies. The average value of the following categories: green technologies (item 4.4.19, "green technologies are quickly turned into competitive advantages"), pollution problems (item 4.4.24, pollution problems do not seriously affect your economy), and environmental laws (item 4.4.25, "environmental laws do not hinder the competitiveness of business"). It ranges from 0 to 10 with larger values indicating more rigid environmental legislation.	World Competitiveness Yearbook (IMD)
Control variables		
Log of total assets (industry-level)	Logarithm of total assets. It is calculated as industry median values for every country and year.	Worldscope
R&D spending (industry-level)	Research and development expenses scaled by total assets. It is calculated as industry median values for every country and year.	Worldscope
Growth of sales (industry-level)	Annual growth rate in sales. It is calculated as industry median values for every country and year.	Worldscope
Degree of central bank independence (country level)	The index ranges from 0 (small degree of independence) through 1 (large degree of independence) and it consists of two attributes: (i) financial independence (the ability given to the government to finance government expenditures either directly or indirectly through central bank credits), (ii) policy independence (maneuvering room given to the central bank in the formulation and execution of monetary policy), and (iii) personnel independence (the influence the government has in appointment procedures).	Polillo and Guillen (2005)

Table 2 Descriptive statistics. Panel A: Descriptive statistics by industry

Industry name	SIC code	Industry value	Stock returns	Accounting performance	Labor intensity	Tax sensitivity	Interest rate sensitivity	Environmental sensitivity	Number of firms for US	Number of country-years
Agricultural crops	100	3.238	5.947	0.049	0.245	0.055	0.188	4.796	8	230
Agriculture livestock	200	1.759	0.000	0.091	-	0.082	0.350	5.972	2	382
Forestry	800	1.085	3.847	0.064	-	0.060	0.233	5.409	7	201
Fishing and hunting	900	2.682	6.454	0.116	-	0.109	0.353	4.569	7	86
Metal mining	1000	4.925	23.669	-0.008	0.183	-0.016	0.139	4.026	78	378
Coal mining	1200	1.971	12.608	0.096	0.291	0.104	0.258	4.938	8	187
Oil and gas extraction	1300	2.528	20.253	0.122	0.132	0.127	0.256	5.960	193	326
Quarrying of minerals	1400	2.985	5.157	0.010	0.283	0.011	0.181	5.469	14	230
Building construction	1500	1.898	14.057	0.098	0.369	0.089	0.287	5.972	44	1241
Food products	2000	2.079	5.485	0.127	0.174	0.128	0.219	7.309	112	714
Tobacco products	2100	2.989	12.692	0.213	0.154	0.205	0.320	4.980	11	233
Textile mill products	2200	1.865	1.176	0.089	0.250	0.095	0.296	5.646	16	444
Apparel	2300	2.333	5.622	0.109	0.303	0.114	0.165	6.885	50	443
Lumber and wood products	2400	3.949	12.448	0.075	0.257	0.071	0.232	5.673	24	337
Furniture and fixtures	2500	2.688	3.883	0.139	0.372	0.147	0.194	6.535	28	392
Paper and allied products	2600	2.201	5.188	0.109	0.255	0.106	0.282	5.371	75	528
Printing and publishing	2700	1.521	3.949	0.088	0.423	0.080	0.206	4.995	66	528
Chemicals and allied products	2800	2.265	16.963	-0.086	0.195	-0.086	0.141	4.821	470	684
Petroleum refining	2900	2.331	19.605	0.161	0.057	0.168	0.188	4.415	44	439
Rubber and plastics products	3000	2.705	3.506	0.131	0.333	0.121	0.229	4.497	59	221
Leather and leather products	3100	1.992	3.807	0.137	0.245	0.139	0.118	3.020	32	370
Stone, clay, and glass	3200	4.421	5.117	0.110	0.344	0.106	0.251	6.822	34	570
Primary metal industries	3300	5.311	6.619	0.078	0.195	0.084	0.246	5.120	69	460
Fabricated metal products	3400	4.216	5.404	0.125	0.303	0.125	0.237	5.363	74	491
Industrial and computer equipment	3500	1.529	10.615	0.025	0.330	0.023	0.121	5.070	300	342
Electronic and electrical equipment	3600	2.170	10.615	0.038	0.274	0.041	0.114	6.715	419	390
Transportation equipment	3700	5.443	7.090	0.111	0.139	0.104	0.200	5.205	132	566
Measuring instruments	3800	4.331	12.337	0.000	0.501	-0.007	0.108	4.408	356	337
Miscellaneous industries	3900	2.601	12.606	0.074	0.272	0.070	0.174	6.707	44	422
Railroad transportation	4000	3.278	9.573	0.104	0.354	0.098	0.291	5.438	18	175
Highway passenger Transportation	4100	4.447	6.239	0.078	-	0.072	0.029	4.654	4	276
Motor freight transportation	4200	3.669	12.709	0.133	-	0.127	0.233	4.963	43	348
Water transportation	4400	3.221	5.895	0.120	-	0.120	0.368	4.877	30	522
Transportation by air	4500	4.559	16.163	0.080	-	0.078	0.286	5.199	33	491
Pipelines, except natural gas	4600	1.568	18.892	0.072	-	0.075	0.213	5.441	2	164
Transportation services	4700	2.396	41.527	-0.037	-	-0.041	0.149	6.853	16	467
Communications	4800	3.578	16.083	-0.003	0.223	0.006	0.293	6.983	125	593
Electric, gas, and sanitary services	4900	2.750	9.777	0.093	0.191	0.090	0.304	5.277	267	597
Wholesale trade-durable goods	5000	2.448	10.236	0.070	0.453	0.076	0.191	3.325	116	549
Building materials	5200	2.768	28.123	0.067	-	0.071	0.216	5.651	9	190
Eating and drinking places	5800	5.095	8.049	0.134	-	0.127	0.260	5.718	62	312
Miscellaneous retail	5900	2.263	6.789	-0.033	-	-0.039	0.154	0.389	86	102
Depository institutions	6000	1.617	20.976	0.023	0.223	0.028	0.113	5.600	539	749
Security and commodity brokers	6200	1.712	18.236	0.028	-	0.018	0.075	4.683	66	532
Insurance carriers	6300	2.419	10.930	0.027	-	0.022	0.057	4.785	196	317
Real estate	6500	3.149	8.008	0.070	-	0.065	0.304	5.873	55	319
Investment offices	6700	3.774	0.879	0.077	-	0.084	0.348	5.855	877	688
Hotels	7000	4.963	14.849	0.080	0.481	0.071	0.379	6.522	14	501
Business services	7300	5.750	17.260	-0.125	-	-0.116	0.084	6.234	376	536
Motion pictures	7800	3.895	25.424	0.030	-	0.022	0.187	6.125	16	203
Amusement services	7900	3.702	10.880	0.075	-	0.068	0.341	6.068	66	358
Health services	8000	3.958	10.061	0.084	-	0.079	0.234	4.218	109	326
Legal services	8100	1.255	12.140	0.206	-	0.196	0.001	5.353	5	55
Educational services	8200	4.663	21.273	0.057	-	0.062	0.098	6.649	13	213
Social services	8300	2.070	5.429	0.063	-	0.067	0.495	5.896	6	120
Museums and art galleries	8400	2.248	9.137	-0.015	-	-0.010	0.116	7.084	73	93
Membership organizations	8600	2.581	9.070	-0.397	-	-0.391	0.033	5.881	65	28
Average		3.010	11.251	0.064	0.275	0.063	0.213	5.408	106.368	385.894
Minimum		1.085	0	-0.397	0.057	-0.391	0.001	0.389	2	28
Maximum		5.75	41.52666	0.213	0.501	0.205	0.495	7.309	877	1241
Total									6063	21996
Number of industries	57	57	57	57	57	57	57	57	8	57

This table contains summary statistics by industry (average values across countries and years from 1990–2006). SIC code is two-digit Standard Industry Classification code. All of the variables are defined in Table 1. *Number of country-years* is the aggregate number of country observations across industries and sample years. The last row contains the number of industries for each variable.

Table 2 continued. Panel B: Descriptive statistics by country

Country	GDP per capita (in 2000 US$)	Industry value	Stock returns	Accounting performance	Availability of return series	Party orientation	Number of industry-years	Number of firms
Argentina	7,334	2.871	9.297	-1.050	1990–2006	1.943	156	97
Australia	19,854	2.340	13.803	15.727	1990–2006	2.822	847	1603
Austria	22,684	1.067	11.026	13.019	1990–2006	3.699	360	120
Belgium	21,384	2.461	12.343	13.097	1990–2006	1.884	535	187
Brazil	3,641	2.677	11.258	-2.400	1991–2006	3.417	434	294
Canada	21,989	3.125	7.124	14.713	1990–2006	3.531	813	1724
Chile	4,572	2.178	3.821	9.878	1990–2006	1.705	345	245
China	880	4.747	14.753	4.473	1992–2006	5.000	602	1575
Colombia	2,427	3.792	7.745	8.689	1991–2006	2.691	152	38
Czech Rep.	5,507	4.397	17.807	30.222	1996–2006	3.127	86	23
Denmark	28,130	2.994	13.077	6.015	1990–2006	2.943	496	273
Egypt	1,332	3.067	14.835	21.418	1996–2006	-	44	27
Finland	21,905	1.710	20.386	10.201	1990–2006	3.711	433	178
France	21,358	2.678	18.931	5.128	1990–2006	2.587	945	1021
Germany	22,012	3.088	23.659	4.034	1990–2006	2.766	864	1165
Greece	11,329	4.285	35.155	7.869	1994–2006	3.411	360	415
Hungary	4,541	5.374	13.815	6.350	1994–2006	3.764	121	39
India	433	4.925	24.906	6.907	1990–2006	3.293	401	745
Indonesia	811	3.438	17.687	6.905	1990–2006	-	554	397
Ireland	21,891	2.014	10.338	16.404	1990–2006	2.823	301	100
Israel	17,998	2.671	6.376	1.673	1990–2006	2.472	206	224
Italy	18,309	2.837	1.149	-8.347	1990–2006	2.705	565	350
Japan	36,289	2.880	13.368	5.108	1990–2006	2.177	1040	5719
Luxembourg	42,342	1.330	13.000	5.211	1991–2006	3.000	135	46
Malaysia	3,765	2.834	13.963	11.805	1990–2006	-	822	1251
Mexico	5,547	4.192	10.650	15.032	1991–2006	3.939	327	132
Morocco	1,338	2.225	0.504	7.644	1993–2006	-	32	32
Netherlands	22,286	1.945	13.716	4.294	1990–2006	3.061	626	276
New Zealand	12,805	2.758	6.476	9.929	1990–2006	2.763	462	144
Norway	34,932	1.896	5.425	4.534	1990–2006	2.943	473	184
Pakistan	530	2.061	6.017	4.245	1994–2006	3.137	195	151
Peru	1,996	1.754	17.572	9.883	1991–2006	1.873	104	61
Philippines	959	3.298	12.053	11.333	1990–2006	3.000	377	278
Poland	4,034	2.272	3.301	1.645	1996–2006	4.415	201	100
Portugal	10,086	2.220	26.818	3.191	1990–2006	2.944	294	90
Russia	1,987	2.674	24.472	16.099	1996–2006	-	81	45
Singapore	20,860	2.339	14.185	13.348	1990–2006	-	742	622
South Africa	3,095	1.484	18.403	-0.900	1990–2006	3.827	484	436
South Korea	10,565	3.465	23.648	-0.320	1990–2006	5.000	395	1290
Spain	13,452	2.459	4.920	5.767	1990–2006	3.048	590	211
Sri Lanka	794	2.269	17.113	10.926	1996–2006	4.069	37	42
Sweden	26,118	2.683	16.007	8.836	1990–2006	3.647	639	369
Switzerland	33,761	3.338	12.039	-1.598	1990–2006	-	588	385
Taiwan	12,931	4.016	33.892	5.411	1990–2006	1.353	456	1219
Thailand	1,961	4.522	31.101	5.858	1990–2006	1.900	667	629
Turkey	3,881	3.456	24.528	4.203	1990–2006	2.463	248	344
United Kingdom	23,294	2.148	3.822	12.162	1990–2006	3.060	1063	2500
United States	32,454	3.075	19.428	3.008	1990–2006	2.813	1154	6063
Venezuela	4,939	3.176	3.457	-5.538	1991–2006	2.000	83	30
Zimbabwe	594	1.088	22.973	8.978	1993–2006	-	61	26
Average	12,958	2.852	14.443	7.420		3.017	429.92	670.300
Minimum	433	1.067	0.504	-8.347		1.137	32	23
Maximum	42,342	5.374	35.155	30.222		5	1154	6063
Total							21996	33515

This table contains summary statistics by country (average values across industries and years from 1990–2006). All of the variables are defined in Table 1. *Number of industry-years* is the aggregate number of industry observations across countries and sample years. *Number of firm-years* is the aggregate number of firm observations across countries and sample years used to calculate the volatility measures.

Table 3. Performance of labour intensive industries conditional on party orientation

	Industry value	Stock returns	Accounting performance
Specification	1	2	3
Interaction of Labor Intensity with Party Orientation Index	**-0.101***	**-0.027***	**-0.017***
	(0.00)	(0.00)	(0.00)
Labor Intensity	0.416	0.112	0.100
	(0.30)	(0.33)	(0.34)
Party Orientation Index	0.209	0.010	0.010
	(0.25)	(0.26)	(0.26)
Log of Total Assets	**-0.514***	**-0.102***	**-0.034***
	(0.00)	(0.00)	(0.00)
R&D Spending	**4.813***	**0.319***	**0.122***
	(0.00)	(0.00)	(0.00)
Growth in Sales	**0.102***	**0.017***	**0.021***
	(0.00)	(0.00)	(0.00)
Country fixed effects	included	included	included
Industry fixed effects	included	included	included
Year fixed effects	included	included	included
Regression R^2-adj.	0.129	0.130	0.132
Number of observations	10,142	10,142	10,142

This table reports the results of OLS regressions of the industry value, stock returns, and accounting performance on the interaction terms of industry labor intensity with party orientation, and control variables. All of the variables are defined in Table 1. Every regression includes industry, country, and year fixed effects. The numbers in parentheses are *p*-values. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. *, **, *** indicate significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered by countries and years to adjust them for heteroscedasticity, cross-sectional, and time-series correlations.

Table 4. Performance of industries sensitive to environmental legislation conditional on party orientation

	Industry value	Stock returns	Accounting performance
Specification	1	2	3
Interaction of Sensitivity to Environmental Legislation with Party Orientation Index	**-0.013*** **	**-0.004***	**-0.010*** **
	(0.00)	(0.10)	(0.00)
Sensitivity to Environmental Legislation	**0.162** **	**0.020** **	**0.021** **
	(0.02)	(0.00)	(0.02)
Party Orientation Index	0.314	0.015	0.018
	(0.22)	(0.22)	(0.22)
Log of Total Assets	**-0.176*** **	**-0.011*** **	**-0.033*** **
	(0.00)	(0.00)	(0.00)
R&D Spending	**0.609*** **	**3.109*** **	**0.111*** **
	(0.00)	(0.00)	(0.00)
Growth in Sales	**0.015*** **	**0.098*** **	**0.026*** **
	(0.00)	(0.00)	(0.00)
Country fixed effects	included	included	included
Industry fixed effects	included	included	included
Year fixed effects	included	included	included
Regression R^2-adj.	0.123	0.128	0.129
Number of observations	13,808	13,808	13,808

This table reports the results of OLS regressions of the industry value, stock returns, and accounting performance on the interaction terms of industry sensitivity to environmental legislation with party orientation, and control variables. All of the variables are defined in Table 1. Every regression includes industry, country, and year fixed effects. The numbers in parentheses are *p*-values. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. *, **, *** indicate significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered by countries and years to adjust them for heteroscedasticity, cross-sectional, and time-series correlations.

Table 5. Performance of industries sensitive to corporate tax rates conditional on party orientation

	Industry value	Stock returns	Accounting performance
Specification	1	2	3
Interaction of Corporate Tax Rate Sensitivity with Party Orientation Index	-0.093	**-0.078****	**-0.114*****
	(0.14)	(0.03)	(0.00)
Corporate Tax Rate Sensitivity	**0.833*****	**0.312*****	**0.304*****
	(0.00)	(0.00)	(0.00)
Party Orientation Index	0.003	0.004	0.004
	(0.32)	(0.43)	(0.43)
Log of Total Assets	**-0.102*****	**-0.007*****	**-0.031*****
	(0.00)	(0.00)	(0.00)
R&D Spending	**4.813*****	**0.482*****	**0.129*****
	(0.00)	(0.00)	(0.00)
Growth in Sales	**0.207*****	**0.009*****	**0.026*****
	(0.00)	(0.00)	(0.00)
Country fixed effects	included	included	included
Industry fixed effects	included	included	included
Year fixed effects	included	included	included
Regression R2-adj.	0.126	0.121	0.120
Number of observations	13,808	13,808	13,808

This table reports the results of OLS regressions of the industry value, stock returns, and accounting performance on the interaction terms of industry sensitivity to corporate tax rates with party orientation, and control variables. All of the variables are defined in Table 1. Every regression includes industry, country, and year fixed effects. The numbers in parentheses are *p*-values. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. *, **, *** indicate significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered by countries and years to adjust them for heteroscedasticity, cross-sectional, and time-series correlations.

Table 6. Performance of industries sensitive to interest rates conditional on party orientation index

Specification	Industry value	Stock returns	Accounting performance
	1	**2**	**3**
Interaction of Interest Rate Sensitivity with Party Orientation Index	**-0.276***	**-0.094****	-0.099
	(0.10)	(0.05)	(0.14)
Interest Rate Sensitivity	**0.434****	**0.412****	**0.435****
	(0.00)	(0.00)	(0.00)
Party Orientation	0.087	0.013	0.012
	(0.29)	(0.34)	(0.23)
Log of Total Assets	**-0.081****	**-0.009****	**-0.014****
	(0.00)	(0.00)	(0.00)
R&D Spending	**4.813****	**0.301****	**0.082****
	(0.00)	(0.00)	(0.00)
Growth in Sales	**0.102****	**0.015****	**0.020****
	(0.00)	(0.00)	(0.00)
Country fixed effects	included	included	included
Industry fixed effects	included	included	included
Year fixed effects	included	included	included
Regression R^2-adj.	0.126	0.123	0.118
Number of observations	13,808	13,808	13,808

This table reports the results of OLS regressions of the industry value, stock returns, and accounting performance on the interaction terms of industry labor intensity with party orientation, and control variables. All of the variables are defined in Table 1. Every regression includes industry, country, and year fixed effects. The numbers in parentheses are *p*-values. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. *, **, *** indicate significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered by countries and years to adjust them for heteroscedasticity, cross-sectional, and time-series correlations.

Table 7. Performance of labour intensive industries conditional on labour legislation explained and unexplained by party orientation index

Specification	Industry value	Stock returns	Accounting performance
	1	**2**	**3**
Interaction of Labor Intensity with Labor Legislation Rigidity Explained by Party Orientation Index	**-0.128***	**-0.016***	-0.014
	(0.00)	(0.10)	(0.14)
Interaction of Labor Intensity with Labor Legislation Rigidity Unexplained by Party Orientation Index	-0.249	**-0.042***	**-0.046***
	(0.12)	(0.10)	(0.10)
Labor Intensity	0.507	0.112	0.113
	(0.41)	(0.34)	(0.30)
Explained Labor Legislation Rigidity	-0.309	-0.050	-0.080
	(0.36)	(0.18)	(0.20)
Unexplained Labor Legislation Rigidity	**-0.036****	**-0.017****	**-0.081***
	(0.03)	(0.05)	(0.10)
Log of Total Assets	**-0.022*****	**-0.309*****	**-0.028*****
	(0.00)	(0.00)	(0.00)
R&D Spending	**0.318*****	**4.861*****	**0.119*****
	(0.00)	(0.00)	(0.00)
Growth in Sales	**0.029*****	**0.118*****	**0.045*****
	(0.00)	(0.00)	(0.00)
Country fixed effects	included	included	included
Industry fixed effects	included	included	included
Year fixed effects	included	included	included
Regression R^2-adj.	0.135	0.180	0.116
Number of observations	10,142	10,142	10,142

This table reports the results of the second stage of the 2SLS estimation. In the first stage, rigidity of employment legislation is regressed on the party orientation index. Explained and residual values of employment rigidity are collected and used in the second stage interactions. All of the variables are defined in Table 1. Every regression includes industry, country, and year fixed effects. The numbers in parentheses are *p*-values. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. *, **, *** indicate significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered by countries and years to adjust them for heteroscedasticity, cross-sectional, and time-series correlations.

Table 8. Performance of industries sensitive to environmental legislation conditional on environmental legislation explained and unexplained by party orientation index

	Industry value	Stock returns	Accounting performance
Specification	1	2	3
Interaction of Sensitivity to Environmental Legislation with Environmental Legislation Rigidity Explained by Party Orientation Index	**-0.052*** (0.10)	**-0.040**** (0.05)	**-0.009***** (0.00)
Interaction of Sensitivity to Environmental Legislation with Environmental Legislation Rigidity Unexplained by Party Orientation Index	-0.056 (0.31)	-0.050 (0.28)	-0.006 (0.26)
Sensitivity to Environmental Legislation	**0.028***** (0.00)	**0.026***** (0.00)	**0.021**** (0.02)
Explained Environmental Legislation Rigidity	**-0.017*** (0.10)	-0.111 (0.16)	-0.201 (0.14)
Unexplained Environmental Legislation Rigidity	-0.029 (0.26)	-0.021 (0.19)	**-0.205*** (0.10)
Log of Total Assets	**-0.011***** (0.00)	**-0.048***** (0.00)	**-0.136***** (0.00)
R&D Spending	**0.309***** (0.00)	**0.127***** (0.00)	**4.822***** (0.00)
Growth in Sales	**0.026***** (0.00)	**0.022***** (0.00)	**0.151***** (0.00)
Country fixed effects	included	included	included
Industry fixed effects	included	included	included
Year fixed effects	included	included	included
Regression R^2-adj.	0.130	0.162	0.117
Number of observations	13,808	13,808	13,808

This table reports the results of the second stage of the 2SLS estimation. In the first stage, rigidity of environmental legislation is regressed on the party orientation index. Explained and residual values of environmental rigidity are collected and used in the second stage interactions. All of the variables are defined in Table 1. Every regression includes industry, country, and year fixed effects. The numbers in parentheses are *p*-values. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. *, **, *** indicate significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered by countries and years to adjust them for heteroscedasticity, cross-sectional, and time-series correlations.

Table 9. Performance of industries sensitive to corporate tax rates conditional on tax rates explained and unexplained by party orientation index

Specification	Industry value	Stock returns	Accounting performance
	1	**2**	**3**
Interaction of Tax Rate Sensitivity with Corporate Tax Rates Explained by Party Orientation Index	**-0.076***	**-0.045****	**-0.020*****
	(0.10)	(0.05)	(0.00)
Interaction of Tax Rate Sensitivity with Corporate Tax Rates Unexplained by Party Orientation Index	-0.045	-0.030	-0.014
	(0.20)	(0.26)	(0.28)
Corporate Tax Rate Sensitivity	**0.245*****	**0.317*****	**0.119*****
	(0.00)	(0.00)	(0.00)
Explained Corporate Tax Rates	**-0.032****	**-0.032****	**-0.060****
	(0.02)	(0.04)	(0.04)
Unexplained Corporate Tax Rates	-0.080	-0.076	-0.109
	(0.32)	(0.38)	(0.17)
Log of Total Assets	**-0.034*****	**-0.025*****	**-0.119*****
	(0.00)	(0.00)	(0.00)
R&D Spending	**0.433*****	**0.149*****	**4.816*****
	(0.00)	(0.00)	(0.00)
Growth in Sales	**0.028*****	**0.028*****	**0.122*****
	(0.00)	(0.00)	(0.00)
Country fixed effects	included	included	included
Industry fixed effects	included	included	included
Year fixed effects	included	included	included
Regression R^2-adj.	0.134	0.130	0.128
Number of observations	13,808	13,808	13,808

This table reports the results of the second stage of the 2SLS estimation. In the first stage, corporate tax rates are regressed on the party orientation index. Explained and residual values of corporate tax rates are collected and used in the second stage interactions. All of the variables are defined in Table 1. Every regression includes industry, country, and year fixed effects. The numbers in parentheses are *p*-values. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. *, **, *** indicate significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered by countries and years to adjust them for heteroscedasticity, cross-sectional, and time-series correlations.

Table 10. Performance of industries sensitive to interest rates conditional on interest rates explained and unexplained by party orientation index

	Industry value	Stock returns	Accounting performance
Specification	1	2	3
Interaction of Interest Rate Sensitivity with Interest Rates Explained by Party Orientation Index	-0.513***	-0.131***	-0.116*
	(0.00)	(0.00)	(0.10)
Interaction of Interest Rate Sensitivity with Interest Rates Unexplained by Party Orientation Index	-0.409*	-0.212*	-0.108
	(0.10)	(0.10)	(0.14)
Interest Rate Sensitivity	0.435***	0.019***	0.025***
	(0.00)	(0.00)	(0.00)
Explained Interest Rates	-0.219***	-0.049**	-0.017***
	(0.00)	(0.03)	(0.00)
Unexplained Interest Rates	-0.020	-0.028	-0.001
	(0.21)	(0.20)	(0.50)
Log of Total Assets	-0.030***	-0.125***	-0.024***
	(0.00)	(0.00)	(0.00)
R&D Spending	0.434***	4.830***	0.145***
	(0.00)	(0.00)	(0.00)
Growth in Sales	0.026***	0.125***	0.021***
	(0.00)	(0.00)	(0.00)
Country fixed effects	included	included	included
Industry fixed effects	included	included	included
Year fixed effects	included	included	included
Regression R^2-adj.	0.129	0.134	0.128
Number of observations	13,808	13,808	13,808

This table reports the results of the second stage of the 2SLS estimation. In the first stage, interest rates are regressed on the party orientation index. Explained and residual values of interest rates are collected and used in the second stage interactions. All of the variables are defined in Table 1. Every regression includes industry, country, and year fixed effects. The numbers in parentheses are *p*-values. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. *, **, *** indicate significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered by countries and years to adjust them for heteroscedasticity, cross-sectional, and time-series correlations.

Table C1. Relation between left policy variables and left party orientation index.

	Strictness of labor laws	Strictness of environmental legislation	Statutory Corporate Tax Rate	5-Year Effective Tax Rate	Labor Tax	Real interest rate
Specification	1	2	3	4	5	6
Left Party Orientation Index	**0.031** (0.06)	**0.016** (0.10)	0.733 (0.17)	-1.418 (0.19)	**3.038** (0.05)	1.122 (0.12)
Log of real GDP per capita	0.022 (0.32)	-0.147 (0.19)	-0.086 (0.92)	-0.129 (0.86)	0.263 (0.85)	-1.026 (0.34)
Country fixed effects	yes	yes	no	no	no	yes
Year fixed effects	yes	yes	no	no	no	yes
Regression R^2-adj.	0.140	0.107	0.119	0.122	0.128	0.114
Number of observations	246	319	48	48	48	514

This table reports the results of panel regressions of the leftist policy variables on the left party orientation index controlling for the log of real GDP per capita, country fixed effects and year fixed effects (specifications 1, 2, and 6). The numbers in parentheses are *p*-values. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. *, **, *** indicate significance at the 10%, 5%, and 1%, respectively.