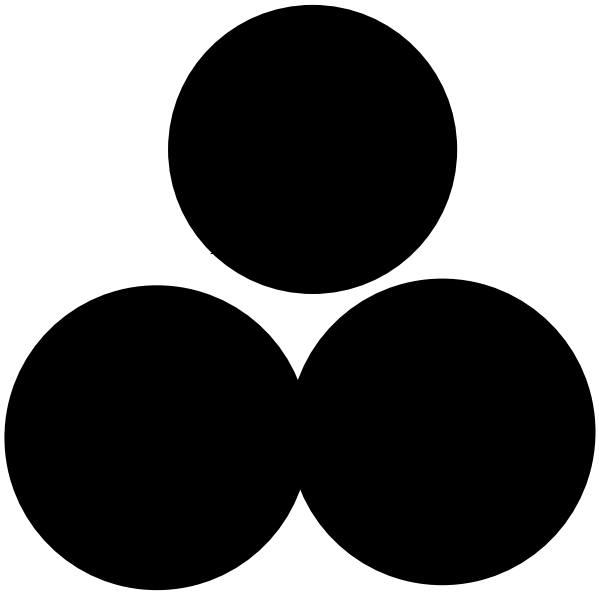
Employment Protection and Payout Policy



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Draft: January 15, 2017

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1. Introduction

Financial economists have identified multiple economic determinants of payout policies. These are often related to agency problems, as well as signaling and tax clientele considerations (see for instance DeAngelo et al., 2009 and Farre-Mensa et al., 2014 for overview studies). A specific research stream has studied the way institutions protect the interest of key non-financial stakeholders, such as employees, in the corporate payout policy decision. In most studies, the proxy for employee protection is unionization and finds either mixed results (DeAngelo and DeAngelo, 1991; Matsa, 2006; Chen et al., 2015) or results that only survive for a subset of observations (Chino, 2016; He et al., 2016). In the current paper, we add more evidence for the effect of institutions by studying the relationship between employment protection laws (EPL) and corporate pay-out policies in an international setting.

The core debate considering the stringency of employment protection and corporate payout policies is economically meaningful and policy relevant. Employees are corporate claimants who compete with shareholders to extract economic rents generated by the firm (Bronars and Deere, 1991; La Porta et al., 2000). The way management conducts its payout policy is likely influenced by the workforce's power through the EPL framework. The predicted relationship between EPL and corporate payouts is, however, unclear. In line with the rent extraction argument, management may decide to set a *high* payout ratio as this leaves less corporate resources on the table for workforce claims. Alternatively, management may decide to set a *low* payout ratio because high EPL imposes additional constraints and costs on firms, causing them to keep the cash internally for precautionary reasons. Building on the argument in He et al., (2016) we might also surmise that a low payout ratio is helpful in keeping a powerful workforce happy because it signals that shareholders are not extracting firm resources but rather keeping them to finance investments.

In our empirical analyses, we assess which of these alternative explanations for the effect of EPL on payout policy is dominant. We analyze dividend and total payout ratios for a large international sample of firms in 21 OECD countries over the 1985-2014 period to disentangle the hypotheses. To mitigate concerns that EPL is endogenously determined by the contracting environment, we run firm fixed effects models, which remove time-invariant unobservable heterogeneity. Our main results show that EPL is negatively related to corporate payouts. As to economic importance, we find that a one standard deviation increase in labor protection leads to a 13.8% lower total payout.[1] Results are consistent for dividend payout and total payout ratios and hold in a battery of robustness checks. Consistent with the flexibility argument, we find that the impact of EPL is greater in firms with higher resource constraints, such as labor intensive firms and firms with higher operating leverage, and lower in firms with lower resource-constraints such as enhanced labor productivity. Finally, we show that in higher EPL environments, firms tend to reduce their debts and working capital. This leads us to presume that they are using the cash retained from not making payouts to reduce leverage, which is consistent with the findings of Simintzi et al. (201().

Our findings add to the literature in several ways. First, our paper adds to the policy-related literature on labor regulation and economic activity. While prior studies mainly find that increased labor adjustment costs from employment protection laws negatively impact economic growth and development at the macro-economic level (Autor et al., 2007; Besley and Burgess, 2004; Botero et al., 2004; Heckman and Pagés, 2001), results at the corporate level are still largely undocumented, with the notable exception of Simintzi et al. (2015). Our results suggest that pro-labor regulation

[1] This number is based on the reference regression in Table 4 of EPL and total payout (Model 3): (0.87*-15.824%)=-13.77%.

reduces corporate payouts and that the higher levels of internal funds are not used to invest but rather to pay off financial debt.

Second, our paper adds to the literature arguing that adverse shocks from pro-labor law reforms impact local firms' valuation and fundamentals, thereby shaping corporate financial decisions. There is evidence that the increased operating risk stemming from employment protection reforms crowds out financial leverage capacity (e.g., Serfling (2016) for the U.S. and Simintzi et al. (2015) for an international sample). The effects of unionization on corporate resources has been studied since the 1990s (e.g., Bronars and Deere, 1991; DeAngelo and DeAngelo, 1991; Matsa, 2006; Chino, 2016; He et al., 2016) with mixed results. However, unionization is different from EPL. Stringent EPL laws affect a country as a whole, while levels of unionization differ among firms in the same country or even in the same industry. Higher levels of unionization potentially enable employees to negotiate with management at the firm level thereby exerting rent extraction pressure. As far as we are aware, we are among the first to show that employment protection laws, which are different to unionization, negatively impact corporate payout and that the effect is greatest for the most resource-constrained firms.

Third, our study is one of the first to provide international confirmation that the perceived constraints and costs of pro-labor laws on a firm’s operating performance and cost of capital are a potentially important determinant of corporate payout policies. These results are consistent with U.S. CEO survey findings in Brav et al. (2005) who conclude that agency, signaling and clientele effects are no longer necessarily seen as core drivers of corporate payout policies and that payouts are more likely explained by the perceived stability of future earnings.

The remainder of the paper is structured as follows. In Section 2 we provide an overview of the related literature and formulate our hypotheses. Section 3 presents the sample, models and variables. Section 4 presents the results of our empirical analyses. Section 5 concludes.

2. Literature and hypotheses

2.1 Determinants of payout policy

Payout policy has undergone some shifts over the last decades. Traditionally, cash is paid out to shareholders in the form of dividends. More recently there has been a shift towards share repurchases (Jagannathan et al., 2000). Changing trends in payout policy are not uniform. Although the propensity to pay dividends has decreased across the board (Fama and French, 2001), larger and older firms are more likely to pay dividends and younger firms are more likely to use share repurchases (Grullon and Michaely, 2002). Payout ratio remains stable for the oldest listed firms and is declining for other firms, while share repurchases complement dividends among the oldest firms and substitute for dividends in other firms (Banyi and Mahle, 2014). Brav et al. (2005) document that dividends are perceived as less flexible than repurchases – managers are at pains to avoid cutting dividends. The findings of the studies above on U.S. samples are reflected internationally. In a worldwide sample, Fatemi and Bildik (2012) find that the propensity to pay dividends and payout ratio are declining, and that larger firms are more likely to be dividend payers. Von Eije and Megginson (2008) show that in the European context, fewer firms pay dividends but the amount of dividends paid increases among payers.

Existing research provides evidence about the determinants of payout policy, such as signaling, tax clienteles and catering. Evidence for signaling is somewhat lacking. The managers interviewed in Brav et al. (2005) do not consciously signal through payout policy. Grullon et al. (2005) find no evidence that changes to dividends predict changes in firm profitability. Clientele and catering

theories are supported in various studies. Becker et al. (2011) document the existence of geographical dividend clienteles in the US. Similar findings are reported in an international study (Jain and Chu, 2013). Baker and Wurgler (2004) find evidence for dividend catering, which they view as a "*disequilibrium version of the clientele equilibrium view in Black and Scholes (1974)*" (p. 274). Other papers document that firms cater for institutional investors (Desai and Jin, 2011) and catering can also be carried out through share repurchases (Jiang et al, 2013).

2.2 Institutional characteristics and corporate payout policy

An important stream of law and finance research tackles payout policy from a shareholder protection standpoint. Returning cash to shareholders through dividends or share repurchases can mitigate the risk of the manager investing in projects which provide him/her with private rents to the detriment of shareholders' interests (La Porta et al., 2000). In the agency approach, payouts are a type of bonding cost. Studies of firms whose characteristics exacerbate the agency problem provide evidence for the role of payout policy. In an international sample, La Porta et al., 2000 find support for an outcome model of dividends – firms make higher payouts to meet cash demands by minority shareholders who fear expropriation. In a study of dual class share firms, Jordan et al. (2014) document that firms use payout policy to commit to shareholders, thereby avoiding the potential expropriation of one class of shareholders by another. Bonding motivations for payout policy are relevant to employees when they or their representatives can negotiate with the individual firm to extract rents, such as demanding investments which are beneficial to employees.

2.3 Employment protection laws and payout policies

Employment protection and its organization at the institutional level has received attention from labor economists and policy makers. Employment protection is embedded in the workplace

at different levels and works via (1) *collective labor* laws, (2) *individual employment* contract laws and (3) *social security* laws (Botero et al. 2004). The standard competitive economic model would see employment protection laws (EPLs) as "restrictions" that impose resource costs on contract freedom. For instance, rigid labor laws may make it difficult or overly costly to reduce wages, introduce flexible working hours, or to fire workers. Such rigidity discourages employment, and in line with these arguments Botero et al. (2004) have found that more protective employment laws coincide with higher unemployment levels.[2] However, market frictions seem to suggest that in real-life examples, labor protection can also be helpful by enhancing productivity performance, eliminating massive lay-offs and provides an alternative to dismissal insurance (Addison & Teixeira, 2001).

Changes in EPL impact labor adjustment costs and result in a shock in hiring and firing costs (Blanchard and Portugal, 2001). EPL impacts a firm's decision-making and flexibility. A number of studies have examined the channels through which EPL can affect operational performance with somewhat mixed findings. Some research concludes that higher levels of EPL lead to lower technical efficiency (Autor et al., 2007) and lower productivity (Bird and Knopf, 2009), On the other hand, EPL may have benefits for firms. Acharya et al. (2013) find that more stringent dismissal laws foster innovation. Alimov (2015) shows that more protective labor laws attract foreign acquirers who are able to focus on undervalued local firms. Other prior research examines the effect of EPL on capital structure. In an international sample, Simintzi et al. (2015) document that employment protection reforms negatively impact financial leverage ratios by about

[2] A logic that may explain this rather counter-intuitive finding is that because of their inherent rigidity, labor laws do not allow for flexible lay-offs in periods of normal economic activity and hence will result in disproportionally high dismissals during economic downturns. However, it is generally accepted that stronger labor laws would increase the cost of dismissal and hence discourage lay-off decisions.

10% for firms located in countries that undergo a reform (treated firms) compared to firms domiciled in other countries (control firms). The authors interpret this to mean that employment protection increases a firm's fixed costs and hence reduces its financial leverage potential.[3] Karpuz et al. (2016) show that in a response to more stringent employment protection regulation, firms increase their cash holdings and this effect is strongest for relatively small firms with high cash flow volatility and labor intensity.

We are unaware of a prior study that has investigated whether or how corporations set payout policies in line with EPL in an international context. A related stream of literature examines the effect of unionization on payout policies in the US context. He et al. (2016) find that the dividend ratio (total payout ratio) of firms becoming unionized following an election is 8.7% (17.9%) lower the following year than in firms where the union election fails. Their results, however, are only verifiable for the observations surrounding the union election passage threshold and hence may suffer from weak external validity. Chino (2016) documents that unionization has heterogeneous effects on payouts as it is negative for low-profitability firms but positive for high-profitability firms. Chen et al. (2015) find that labor power from unionization negatively impacts share repurchases but less so when repurchases can benefit the workforce, such as in the case of hostile takeover attempts or to counter the dilution effects of employee stock options.

The international perspective may provide additional insights into the way employment protection laws can shape corporate payout policies. Stronger employment protection laws may require firms to create buffers to absorb the higher operating risk associated with increased job

[3] With a similar rationale but different focus, Banker et al. (2013) investigate cost stickiness, i.e. the degree of asymmetry in cost response to decreases versus increases in sales (i.e. operating leverage). For a sample of 19 OECD countries, they find that firms operating in a country with more stringent EPL provisions (i.e., with a greater downward adjustment costs for labor) exhibit a greater degree of cost stickiness.

protection. EPLs increase a firm's operating risk because under conditions of higher job security, it is more difficult for firms to fire employees when economic conditions deteriorate and this implicitly increases the fixed component of their cost structure (Banker et al., 2013; Messina & Valanti, 2007). In response to a relatively high EPL, firms may therefore accrue precautionary cash by reducing their payouts, thereby hedging against cash flow risk. The operating flexibility hypothesis suggests that more stringent EPLs *reduce* a firm's payout.

However, the logic may also be reversed if we consider rent extraction arguments such as those studied in Klasa et al. (2009) and Heckman and Pagés (2000). In that case, higher EPL may call for higher payouts. In cases where job security is high, corporations may respond by reducing cash positions to shelter accumulated reserves from employees' demands. This argument has been raised especially in the context of high union capture. Bronars and Deere (1991) model corporate strategic choices to reduce rent extraction by labor unions and conclude that in equilibrium, it is optimal to distribute all internal funds to shareholders. A similar logic is applied in the "deep pocket" argument by DeAngelo et al. (2009). High payouts are a means to self-protect against value-destroying wealth transfers to the workforce which could result from high cash balances. The rent extraction hypothesis suggests that more stringent EPLs *increase* a firm's payout.

There are, however, two arguments which cast doubt on the rent extraction hypothesis. First, the EPL mechanism is not the same as that of unionization. The stringency of EPL refers to the likelihood of worker-favorable outcomes from the collective bargaining of social partners or from court rulings (OECD, 2004). Unions, by contrast, interact more directly with employers on different areas of working conditions and may therefore exercise more direct rent extraction pressure. Checchi and Lucifora (2002) cite international evidence that EPL strictness and unionization power are not identical The authors document a negative correlation between labor

unions and EPL strictness. Second, even if EPL stringency did function in a similar way to unionization, the conjectured positive relationship between payouts and EPL may be expected to arise only in the short run. In the long run, firms can respond by investing in research and development to develop less labor-intensive technologies (Heckman & Pagés, 2000; Acharya et al., 2013). In spite of the counter-arguments, the rent extraction argument is an important theoretical underpinning that may drive the corporate payout decision. Our analysis enables us to determine which of the operating flexibility and the rent extraction hypotheses is dominant on average in our sample.

Data and Methods

Our international sample of firms covers the period 1986 through 2013. The sample period is determined by the availability of EPL data. The EPL indicator is provided by the OECD and includes 21 countries, as in Simintzi et al. (2015). The list of countries is in Table 1. We extract the universe of listed firms for the 21 EPL countries from the Worldscope database. We do not use any data screens in our initial extraction but drop observations which record negative values for any of the following items: dividends, cash, total debt, sales, staff costs, total assets. Our final sample consists in around 267,000 firm-year observations.

Table 1 presents the dependent variables, which are the dividend payout ratio and the total payout ratio (dividends and share repurchases). The mean dividend payout ratio stands at 16.66% (see table 2), consistent with 15.3% for a comparable sample in Brockman et al. (2014). Mean dividend payout varies considerably across the countries in our sample, with a high of 37.95% for New Zealand and a low of 8.23% for the USA. Total payout ratio exhibits a similar range of values, although the USA is in this case around the mean for the whole sample.

Our main variable of interest is Employee Protection Legislation (EPL). EPL is a composite index of 21 country-level items estimated annually by the OECD. They capture the relative legal difficulty or ease with which a firm in a given country can dismiss employees either collectively or individually or resort to temporary staff. The index ranges from 0 to 6, with higher scores representing higher levels of legal protection for employees. EPL scores for the countries in our sample are in Table 1. Mean EPL for the countries in our sample is 1.15, with the highest levels of employee protection in Portugal and the lowest in the USA.

In further analyses, we examine the channels through which EPL affects payout policy. We create additional variables of interest to capture Labor Intensity, Labor Productivity, High Operating Leverage, High Profitability and High Growth Opportunity. Labor intensity and labor productivity are estimated as staff costs scaled by total sales and dollar sales per employee respectively. High Operating Leverage, High Profitability and High Growth Opportunity are the Cost of Goods Sold plus Selling General and Administration Expenses scaled by total assets, Net Income scaled by total assets and Market Value scaled by Book Value.

In some of our analyses, we include variables capturing other aspects of labor power. We use Union Density and Collective Bargaining from ICTWSS database compiled by Visser (2011) at the Amsterdam Institute for Advanced Labor Studies (AIAS) of the University of Amsterdam. Union density is net union membership as a proportion of wage and salary earners in employment. It ranges from 0 to 1 with higher values representing greater union density. Bargaining coverage is number of employees covered by collective (wage) bargaining agreements as a proportion of all wage and salary earners in employment with the right to bargain. It ranges from 0 to 1 with higher values representing broader bargaining agreement coverage.

We include firm and country level variables in our analyses. Table 2 shows the firm level data extracted from Worldscope. We winsorize all financial ratio variables at the 1% level. Mean values for the firm-level variables are consistent with Simintzi et al. (2015), with an identical mean leverage of 0.26 in our sample and a similar mean level of tangibility (0.30 compared to 0.31). Differences with Simintzi et al. (2015) are attributable to a different sample period – as the authors' study ends in 2007, their higher value for return on assets is unsurprising. We include country-level variables to control for national characteristics which may affect payout policy, such as gross domestic product (GDP), the quality of institutions and investment profile. GDP and related variables are estimated using data from the World Bank website. Quality of Institutions and Investment profile are taken from the ICRG Country Risk Guide dataset.

We estimate the effect of EPL on firm payout policy using the following specification:

$$y_{it} = \alpha_i + \alpha_k \times \alpha_t + \beta \cdot EPL_{jt} + \gamma \cdot X_{ijt} + \varepsilon_{it}, \quad (1)$$

where i denotes firm, j a country and t a year. The dependent variable, y_{it}, is either payout ratio or total payout. α_j and $\alpha_k \times \alpha_t$ are firm and industry × year fixed effects, respectively. EPL_{jt} is employment protection law index compiled by OECD. X_{ijt} is a vector of control variables and ε_{it} the error term. The vector of control variables includes Firm Size, Leverage, Cash Ratio, Return on Assets, Capex, Tangibility, Sales Growth, Tobin's Q, Retained Earnings and Acquisitions Expense and country-level characteristics (GDP, GDP per capita, Quality of Institutions and Investment profile). We estimate the model using ordinary least squares (OLS) regressions, correcting standard errors for heteroscedasticity and clustering at the country level.

In a second set of analyses, we seek to identify the channel through with EPL affects payout policy. We estimate the following regression:

$$y_{ijt} = \alpha_i + \alpha_k \times \alpha_t + \beta 1 \cdot EPL_{jt} + \beta_2 \cdot I_{it} + \beta_3 \cdot (EPL_{jt} \times I_{it}) + \gamma \cdot X_{ijt} + \varepsilon_{it}, \quad (2)$$

In addition to the specification described in equation (1), we include I_{it}, a measure of Labor Intensity, Labor Productivity, High Operating Leverage, High Profitability, or High Growth Opportunity for firm i in year t for a country j. $(EPL_{jt} \times I_{it})$ captures the interaction between EPL and the channel, making β_3 the coefficient of interest. We estimate the model using ordinary least squares (OLS) regressions, correcting standard errors for heteroscedasticity and clustering at the country level.

3. Results

Results for the impact of EPL on dividend payout ratio are presented in Table 3. Model 1 shows results when EPL is the sole left hand side variable. Model 2 provides results with firm-level controls, which are augmented with country-level controls in Model 3. Model 4 shows results with a full set of firm-level controls, with missing variables causing the sample size to reduce by around 110,000 firm-year observations. Finally, model 5 shows results when all firm and country level control variables are included. Firm fixed effects and industry × year fixed effects are included in all specifications. Robust standard errors are clustered at the country level.

The coefficient on the EPL variable is negative and significant across the board. This is consistent with the operating flexibility hypothesis, which predicts that stricter EPL reduces payout because the firm feels the need to withhold cash from shareholders to create a buffer to absorb potential shocks which cannot be resolved through flexible labor practices. Consistent with the existing literature on dividend policy, larger and more cash-rich firms pay higher levels of dividends.

Table 4 shows results for total payout ratio. Specifications are identical to those presented in Table 3. Once again, the coefficient on EPL, the variable of interest, is negative and significant in all models, in line with the operating flexibility hypothesis. The results are economically meaningful – taking the coefficient for EPL in Model 3, we find that a one standard deviation increase in EPL decreases total payout by 13.8%. Our findings indicate that both dividend payout ratio and total payout ratio are reduced by higher levels of EPL.

One concern with our results is that they could be driven by some countries with specific characteristics, especially those where the EPL index is sticky over the sample period. Table 5 Panel A shows our results when we drop different countries from the analyses. The coefficient on the EPL variable remains negative and significant for dividend payout and total payout in all cases, consistent with the baseline analyses. Our findings could also be driven by the estimation method for the payout ratio variables. In Panel B of Table 5, we estimate three alternative measures of both dividend payout and total payout. Our results remain qualitatively unchanged.

One objection to our focus on EPL could be that it captures the same thing as unionization or collective bargaining. We argue that the effect of EPL is potentially different to the two concepts because it describes the national legal protection of workers and not their bargaining power at the individual firm level. In Panel C of Table 5, we show our findings when we include a union density and bargaining coverage variable. The coefficient on EPL remains negative and significant, while the coefficients on the other two variables are not significant. These results lend credence to the idea that the EPL variable captures something distinct from unionization or collective bargaining. Another objection to EPL is that it could simply be a byproduct of changes in a country's macroeconomic or institutional environment. We carry out a serious of analyses in which we regress the change in EPL score on lagged changes in a series of macroeconomic and institutional

variables. Table A.2 shows that changes in none of GDP growth, per capita GDP, stock market capitalization, private credit, unemployment rate, investment profile, quality of institutions, union density or bargaining coverage are predictors of a change in EPL.

We next turn our attention to the channels by which EPL affects payout policy. We examine five possible channels – labor intensity, labor productivity, operating leverage, profitability and growth opportunities. We expect that higher levels of labor intensity and operating leverage will reinforce the negative impact of EPL on payout, because such firms are more resource constrained. On the other hand, higher labor productivity and profitability should attenuate the negative effect of EPL on payout, because firms are less constrained. Table 6 presents our results for dividend payout ratio (models 1 through 5) and total payout ratio (models 6 through 10). We find the expected negative and significant coefficient on the interaction term between EPL and both labor intensity and operating leverage, and positive and significant coefficient on the interaction terms between EPL and labor productivity and profitability. We interpret this to mean that firms with lower levels of operating flexibility restrain their dividend payments in higher EPL environments to cushion themselves against possible future shocks.

In a final set of analyses, we examine the effect of EPL on other financial policies. Results are presented in table 7. Our findings indicate that in higher EPL environments, firms tend to reduce their debts and working capital. This is suggestive of the fact that they are using the cash retained by not making payouts to pay down debt and reduce working capital. Capital expenditures are, however, unaffected.

4. Conclusion and Discussion

In the current study, we analyze the relationship between employment protection laws and corporate payouts. The economic rationale for this type of study stems from the fact that employees are corporate claimants who compete with shareholders to extract economic rents generated by the firm (Jensen, 1986; La Porta et al., 2000). The resulting theoretical prediction is that in pro-labor law settings, management may decide a lower payout due to higher labor adjustment costs and the associated constraints (i.e., the operating flexibility argument) or will conversely pay out more to shareholders to self-protect against value-destroying wealth transfers to a powerful workforce (i.e., the rent extraction argument).

Studying a large international sample 21 OECD countries for the period 1986-2013, we find that the stringency of EPL negatively impacts payouts. In economic terms, we find a one standard deviation increase in labor protection leads to a 5.5% (13.8%) lower dividend (total) payout ratio. Consistent with the operating flexibility argument, we find that EPL impacts payouts more in firms with higher resource constraints, such as labor-intensive firms and firms with higher operating leverage. Finally, our results are suggestive of the fact that lower payouts in high EPL settings could be used to offset financial debt and working capital but not capital expenditures. Our paper is one of the first to shed new light on the importance of employment protection laws for corporate payout policy in an international setting.

Our general findings provide support for the argument that pro-labor laws impact corporate payouts and since the payout reduction is mainly used to reduce leverage risk and less so to make capital investments it confirms earlier findings (Autor et al., 2007) that tighter employment rules may have a negative economic effect. One potential caveat is that other contemporaneous reforms,

such as corporate/personal tax laws; insider trading laws; or other regulations may impact corporate payout policies. If this is the case, corporate payout policies could be incorrectly attributed to EPL. While we cannot rule out this possibility with certainty because the empirical verification of this scenario would require the inclusion of country×year fixed effects which then absorb the EPL effect, we are reassured by the fact that results hold for a variety of robustness checks and the EPL measure does not load on alternative labor power factors.

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6. Tables

Table 1. Sample Composition:

The table describes the composition by country. All variables are defined in Table A1.

Country	Nbr	Dividend Payout	Total Payout Ratio	EPL	Dividend Payout	Total Payout Ratio	EPL	Dividend Payout	Total Payout Ratio	EPL	Dividend Payout	Total Payout Ratio	EPL	Dividend Payout	Total Payout Ratio	EPL
		Mean			25th Percentile			Median			75th Percentile			Standard Deviation		
Australia	17922	15.61	15.71	1.42	0.00	0.00	1.17	0.00	0.00	1.42	25.32	25.69	1.67	27.64	27.80	0.20
Austria	1470	27.39	32.48	2.58	0.00	0.00	2.37	25.04	28.34	2.75	44.50	52.08	2.75	27.07	32.52	0.19
Belgium	1776	27.65	35.81	1.81	0.00	0.00	1.76	25.17	30.33	1.81	45.64	56.82	1.81	27.08	35.74	0.06
Canada	20588	6.84	7.09	0.92	0.00	0.00	0.92	0.00	0.00	0.92	0.00	0.00	0.92	17.98	18.67	0.00
Denmark	2540	18.60	23.66	2.15	0.00	0.00	2.14	14.48	17.32	2.14	30.49	34.63	2.18	20.98	28.31	0.03
Finland	2033	34.97	37.91	2.30	0.00	0.00	2.17	36.13	37.59	2.17	53.85	58.75	2.31	27.87	31.27	0.19
France	11617	21.53	28.60	2.39	0.00	0.00	2.34	18.26	21.98	2.34	35.29	44.15	2.47	23.43	32.13	0.06
Germany	11238	24.28	27.28	2.75	0.00	0.00	2.68	9.44	13.63	2.68	45.00	49.08	2.87	28.72	32.50	0.11
Greece	1421	21.13	24.35	2.80	0.00	0.00	2.80	0.00	0.00	2.80	38.46	42.11	2.80	27.89	31.84	0.00
Ireland	1616	16.31	20.27	1.39	0.00	0.00	1.40	0.00	4.66	1.44	29.23	32.50	1.44	21.25	27.87	0.07
Italy	3676	26.36	32.83	2.76	0.00	0.00	2.76	23.77	27.69	2.76	45.41	53.15	2.76	27.46	34.91	0.00
Japan	41403	26.36	38.02	1.55	10.41	12.28	1.37	23.08	27.87	1.70	37.41	53.71	1.70	21.92	35.76	0.17
Netherlands	3687	26.87	31.12	2.90	0.00	0.00	2.84	30.19	32.72	2.89	41.15	44.91	2.89	24.01	29.57	0.08
New Zealand	1257	37.95	38.68	1.46	0.00	0.00	1.39	40.90	41.32	1.56	68.54	68.96	1.56	34.29	34.73	0.14
Norway	2920	15.42	16.49	2.33	0.00	0.00	2.33	0.00	0.00	2.33	27.78	29.41	2.33	22.83	24.58	0.00
Portugal	836	23.64	35.49	4.47	0.00	0.00	4.42	9.81	20.07	4.58	45.56	62.73	4.58	28.43	41.38	0.26
Spain	2159	29.42	39.46	2.59	0.00	0.00	2.36	26.00	34.50	2.36	49.97	62.93	2.36	28.32	35.29	0.49
Sweden	5384	22.70	22.95	2.65	0.00	0.00	2.61	10.30	11.26	2.61	41.29	41.55	2.66	26.82	27.18	0.07
Switzerland	3821	25.37	40.44	1.60	0.00	0.59	1.60	25.28	32.83	1.60	38.55	61.18	1.60	23.51	37.66	0.00
United Kingdom	29020	25.25	26.22	1.12	0.00	0.00	1.03	24.00	24.43	1.20	42.87	43.62	1.20	25.40	27.03	0.08
United States	101054	8.23	24.08	0.26	0.00	0.00	0.26	0.00	0.00	0.26	0.00	29.67	0.26	18.59	42.20	0.00

Table 2. Summary Statistics:
The table reports the summary statistics of variables. All variables are defined in Appendix A2.

Variables	Nbr	Mean	25th Percentile	Median	75th Percentile	Standard Deviation
Dependent Variable						
Payout Ratio	267438	16.66	0.00	0.00	30.17	23.85
Total Payout	267150	25.71	0.00	0.04	41.11	36.30
Variable of Interest						
EPL Index	267438	1.15	0.26	1.03	1.70	0.87
Firm Characteristics						
Firm Size	267438	11.81	10.32	11.87	13.43	2.49
Leverage	267438	0.26	0.03	0.18	0.35	0.41
Cash Ratio	267438	0.19	0.04	0.11	0.25	0.21
Return on Assets	267438	-0.15	-0.05	0.06	0.11	0.91
Capex	267438	0.06	0.02	0.04	0.08	0.08
Tangibility	267438	0.30	0.09	0.24	0.44	0.25
Sales Growth	154078	0.22	-0.05	0.08	0.23	0.96
Tobin's Q	154078	2.35	0.89	1.60	2.84	5.02
Retained Earnings	154078	5.13	1.00	3.53	7.41	8.86
Acquisitions Expense	154078	0.02	0.00	0.00	0.01	0.49
Country Characteristics						
Per Capita GDP	267438	10.46	10.23	10.50	10.70	0.33
GDP Growth	267438	2.24	1.61	2.46	3.59	1.95
Quality of Institutions	154078	13.83	13.00	14.00	14.75	1.11
Recession	154078	0.13	0.00	0.00	0.00	0.34
Investment Profile	154078	10.34	9.58	11.50	12.00	2.07

Table 3. Employment Protection and Dividend Payout:
The table presents the results from OLS regression model. The dependent variable is the dividend payout ratio. The variable of interest is EPL Index. Inclusion of fixed effects (FE) is indicated at the end. All variables are defined in Table A2. For all models, we correct standard errors for heteroscedastic at country level and report t-statistics in parentheses. Significance at 10%, 5%, and 1% is indicated by *, **, and ***, respectively.

	1	2	3	4	5
Variable of Interest					
EPL Index	**-5.464	***-5.966	***-6.317	**-7.060	**-6.631
	(2.85)	(2.89)	(2.93)	(2.60)	(2.35)
Firm Characteristics					
Firm Size		***1.315	***1.302	***1.701	***1.708
		(3.46)	(3.48)	(3.25)	(3.26)
Leverage		-1.846	-1.863	-2.078	-2.077
		(1.53)	(1.53)	(1.60)	(1.60)
Cash Ratio		***2.537	***2.525	***3.744	***3.750
		(4.05)	(4.06)	(4.95)	(4.97)
Return on Assets		***-0.406	***-0.403	**-0.361	**-0.363
		(2.93)	(2.92)	(2.43)	(2.47)
Capex		2.157	2.194	2.889	2.904
		(1.12)	(1.14)	(1.01)	(1.02)
Tangibility		-0.711	-0.735	0.839	0.822
		(0.63)	(0.65)	(0.88)	(0.88)
Sales Growth				***-0.095	***-0.099
				(4.96)	(5.00)
Tobin's Q				-0.005	-0.006
				(0.54)	(0.58)
Retained Earnings				**0.087	**0.087
				(2.27)	(2.28)
Acquisitions Expense				0.081	0.08
				(1.72)	(1.67)
Country Characteristics					
Per Capita GDP			0.543	-1.30	-1.71
			(0.43)	(1.10)	(1.14)
GDP Growth			-0.116	-0.162	*-0.276
			(1.10)	(1.07)	(1.95)
Quality of Institutions					0.314
					(0.95)
Investment Profile					**0.374
					(2.29)
Recession					*-0.785
					(1.73)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry x Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Number of Observations	267438	267438	267438	154078	153997
Adjusted R^2	0.625	0.627	0.627	0.668	0.668

Table 4. Employment Protection and Total Payout:
The table presents the results from OLS regression model. The dependent variable is the total payout ratio. The variable of interest is EPL Index. Inclusion of fixed effects (FE) is indicated at the end. All variables are defined in Table A2. For all models, we correct standard errors for heteroscedastic at country level and report t-statistics in parentheses. Significance at 10%, 5%, and 1% is indicated by *, **, and ***, respectively.

	1	2	3	4	5
Variable of Interest					
EPL Index	**-19.566	**-19.995	**-15.824	*-21.668	*-20.055
	(2.40)	(2.38)	(2.35)	(2.04)	(2.05)
Firm Characteristics					
Firm Size		***1.382	***1.719	***2.454	***2.474
		(4.98)	(5.18)	(6.67)	(6.67)
Leverage		**-3.266	**-2.969	***-3.477	***-3.487
		(2.45)	(2.71)	(2.99)	(3.03)
Cash Ratio		***3.490	***3.917	***6.624	***6.606
		(3.07)	(4.42)	(6.41)	(6.43)
Return on Assets		***-0.365	***-0.458	***-0.376	***-0.389
		(3.21)	(3.33)	(2.85)	(2.95)
Capex		*3.801	*3.855	3.147	3.015
		(1.85)	(1.80)	(1.01)	(0.96)
Tangibility		-0.701	-0.886	**1.860	**1.747
		(0.75)	(0.83)	(2.31)	(2.19)
Sales Growth				**-0.153	**-0.169
				(2.11)	(2.52)
Tobin's Q				-0.02	-0.021
				(1.16)	(1.23)
Retained Earnings				**0.130	**0.131
				(2.65)	(2.64)
Acquisitions Expense				0.084	0.082
				(0.84)	(0.81)
Country Characteristics					
Per Capita GDP			***-14.247	**-14.691	**-16.006
			(4.39)	(2.76)	(2.72)
GDP Growth			-0.037	-0.272	*-0.495
			(0.19)	(1.10)	(1.75)
Quality of Institutions					0.572
					(0.67)
Investment Profile					***1.634
					(3.18)
Recession					0.525
					(0.56)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry x Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Number of Observations	267150	267150	267150	154056	153975
Adjusted R^2	0.545	0.546	0.548	0.587	0.588

Table 5: Robustness Checks:

The table reports the results of different robustness tests on dividend payouts and total payouts. Panel A presents the results of various sub-samples. Columns (1)-(6) of panel A report the results when dependent variable is dividend payout and columns (7)-(12) report the results when the dependent variable is total payout. Panel B presents the results when we use alternative definitions of dependent variables. Columns (1)-(3) of panel B report the results when the dependent variable is dividend payout and columns (4)-(6) present the results when the dependent variable is total payout. Panel C presents the results of 'Horse Race' regressions of EPL index and collective bargaining variables *(Union Density and Bargaining Coverage*). Columns (1)-(2) of panel C report the results when the dependent variable is dividend payout and columns (3)-(4) present the results when the dependent variable is total payout. The variable of interest in all panels is EPL Index. We include the same set of controls as in column (3) of Table 3 for all models in all panels. Inclusion of fixed effects (FE) is indicated at the end. All variables are defined in Table A2. For all models, we correct standard errors for heteroscedastic at country level and report t-statistics in parentheses. Significance at 10%, 5%, and 1% is indicated by *, **, and ***, respectively.

Panel A. Different Sub-samples:

	Dividend Payout						Total Payout					
	1	2	3	4	5	6	7	8	9	10	11	12
Variable of Interest												
EPL Index	**-6.851	***-6.327	***-6.242	***-6.297	***-6.243	**-6.402	**-16.268	**-15.883	**-15.768	**-15.766	**-15.742	**-16.056
	(2.67)	(2.99)	(2.94)	(2.88)	(2.95)	(2.57)	(2.48)	(2.40)	(2.35)	(2.32)	(2.35)	(2.48)
United States Drop	Yes						Yes					
Canada Drop		Yes						Yes				
Norway Drop			Yes						Yes			
Switzerland Drop				Yes						Yes		
Italy Drop					Yes						Yes	
All Drop						Yes						Yes
Firm Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry x Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	166384	246850	264518	263617	263762	135379	166195	246596	264235	263337	263474	135237
Adjusted R^2	0.565	0.621	0.630	0.630	0.631	0.545	0.543	0.538	0.548	0.550	0.550	0.526

Panel B. Alternate Definitions of Dependent Variables:

	Dividend/AT	Dividend/SA	Dividend/MV	Total Payout/AT	Total Payout/ SA	Total Payout/MV
	1	2	3	4	5	6
Variable of Interest						
EPL Index	**-0.204	**-0.201	**-0.933	*-0.570	*-0.602	**-8.113
	(2.39)	(2.63)	(2.39)	(1.87)	(1.98)	(2.14)
Firm Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Country Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry x Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	238276	226696	205213	238060	226530	211149
Adjusted R^2	0.687	0.681	0.662	0.614	0.601	0.593

Panel C. 'Horse Race' Regressions with Collective Bargaining Variables:

	Dividend Payout			Total Payout
	1	2	3	4
Variables of Interest				
EPL Index	**-7.433	***-8.482	**-14.468	***-17.819
	(2.56)	(3.05)	(2.25)	(3.49)
Union Density	0.798		41.312	
	(0.07)		(1.53)	
Bargaining Coverage		6.207		14.417
		(1.16)		(1.69)
Firm Characteristics	Yes	Yes	Yes	Yes
Country Characteristics	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Industry x Year Fixed Effects	Yes	Yes	Yes	Yes
Number of Observations	223909	223347	223726	223164
Adjusted R^2	0.646	0.646	0.571	0.572

Table 6: Cross-Sectional Heterogeneity:

The table presents the results from OLS regression model. Columns (1)-(5) report the results when dependent variable is dividend payout and columns (6)-(10) report the results when the dependent variable is total payout. The variables of interest are EPL Index and interaction terms. We include the same set of controls as in column (3) of Table 3 for all models in all panels. All variables are defined in Table A2. Inclusion of fixed effects (FE) is indicated at the end. For all models, we correct standard errors for heteroscedastic at country level and report t-statistics in parentheses. Significance at 10%, 5%, and 1% is indicated by *, **, and ***, respectively.

	Dividend Payout					Total Payout				
	Labor Intensity	Labor Productivity	High Operating Leverage	High Profitability	High Growth Opportunity	Labor Intensity	Labor Productivity	High Operating Leverage	High Profitability	High Growth Opportunity
	1	2	3	4	5	6	7	8	9	10
Variables of Interest										
EPL Index	*-4.102	***-9.171	***-6.404	***-6.305	***-5.506	*-4.895	*-14.536	***-23.043	**-15.812	**-16.652
	(1.77)	(3.54)	(3.14)	(2.88)	(2.86)	(2.01)	(1.94)	(3.45)	(2.34)	(2.47)
EPL Index x Labor Intensity	***-1.152					**-1.209				
	(2.96)					(2.78)				
EPL Index x Labor Productivity		*0.323					***0.774			
		(2.03)					(3.19)			
EPL Index x High Operating Leverage			**-0.457					**-0.417		
			(2.60)					(2.26)		
EPL Index x High Profitability				***1.497					**1.398	
				(3.77)					(2.84)	
EPL Index x High Growth Opportunity					***-0.084					*-0.094
					(2.89)					(1.88)
Labor Intensity	**1.142					**1.288				
	(2.14)					(2.16)				
Labor Productivity		-0.127					***0.838			
		(0.90)					(3.93)			
High Operating Leverage			*0.628					***1.154		
			(1.76)					(4.91)		
High Profitability				**-1.364					**-1.353	
				(2.53)					(2.64)	
High Growth Opportunity					**0.129					***0.154
					(2.65)					(3.20)
Firm Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry x Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	82101	233842	205969	267438	213032	81993	233625	205730	267150	212875
Adjusted R^2	0.604	0.615	0.636	0.628	0.629	0.564	0.533	0.555	0.548	0.555

Table 7. Employment Protection and Other Financial Policies:
The table presents the results from OLS regression model. Column (1) reports the results when dependent variable is Change in Debt, column (2) reports the results when dependent variable is Change in WC and column 3 reports the results when dependent variable is Change in CAPEX. The variables of interest are EPL Index and interaction terms. We include the same set of controls as in column (3) of Table 3 for all models in all panels. All variables are defined in Table A2. Inclusion of fixed effects (FE) is indicated at the end. For all models, we correct standard errors for heteroscedastic at country level and report t-statistics in parentheses. Significance at 10%, 5%, and 1% is indicated by *, **, and ***, respectively.

	Change in Debt	Change in WC	Change in CAPEX
Variable of Interest			
EPL Index	*-0.407	*-0.259	0.029
	(1.98)	(1.76)	(0.69)
Firm Characteristics	Yes	Yes	Yes
Country Characteristics	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes
Industry x Year Fixed Effects	Yes	Yes	Yes
Number of Observations	257431	261799	239920
Adjusted R^2	0.026	0.016	0.015

Appendices

Table A 1. Variable Definitions and Sources:

Variable Name	Definition and Source
Measures of Payout Policy	
Dividend Payout	Dividends divided by earnings before extra-ordinary items (*Source:* Worldscope).
Total Payout	The sum of dividends and share repurchases divided by earnings before extra-ordinary items (*Source:* Worldscope).
Dividend/SA	Dividends divided by total sales (*Source:* Worldscope).
Dividend/AT	Dividends divided by total book value of assets (*Source:* Worldscope).
Dividend/MV	Dividends divided by market value of common equity (*Source:* Worldscope).
Total Payout/SA	The sum of dividends and share repurchases divided by total sales *(Source:* Worldscope).
Total Payout/AT	The sum of dividends and share repurchases divided by total book value of assets (*Source:* Worldscope).
Total Payout/MV	The sum of dividends and share repurchases divided by market value of common equity (*Source:* Worldscope).
Employment Protection	
EPL	Index measuring the strictness of regulations that an employer has to follow in order to dismiss a worker with a regular contract; it ranges from 0 to 6 and is time-varying (*Source:* OECD).
Union Density	Net union memberships divided by all wage and salary earners in employment; it ranges from 0 to 1 and is time-varying (*Source:* ICTWSS).
Bargaining Coverage	Total number of employees covered by collective (wage) bargaining agreements divided by all wage and salary earners in employment with the right to bargaining, adjusted for the possibility that some sectors or occupations are excluded from the right to bargain (removing such groups from the employment count before dividing the number of covered employees over the total number of dependent workers in employment); it ranges from 0 to 1 and is time-varying (*Source:* ICTWSS).
Firm Level Characteristics	
Firm Size	Natural logarithm of dollar value of the of total assets (*Source:* Worldscope).
Leverage	Short term and long term debt divided by book value of assets (*Source:* Worldscope).
Cash Ratio	Cash and short-term investments divided by book value of total assets (*Source:* Worldscope).
Return on Assets	EBITDA divided by book value of total assets (*Source:* Worldscope).
Capex	Capital expenditure divided by total book value of assets (*Source:* Worldscope).
Tangibility	Net property, plant, and equipment divided by total book value of assets (*Source:* Worldscope).
Sales Growth	Change in total sales from year *t-1* to year *t* divided by total sales at year *t-1* (*Source:* Worldscope).
Tobin's Q	Market value of common equity divided by book value of common equity (*Source:* Worldscope).
Retained Earnings	Retained earnings divided by income before extra-ordinary items (*Source:* Worldscope).
Acquisition Expense	Acquisition expense divided by book value of total assets (*Source:* Worldscope).
Labor Intensity	Staff costs divided by total sales (*Source:* Worldscope).
Labor Productivity	Total sales divided by total number of employees (*Source:* Worldscope).
Operating Leverage	The industry median of the ratio of total R&D expenditures to total book assets (*Source:* Worldscope).

Change in Debts	Change in total debt (short-term and long-term) divided by income before extraordinary items. The change in total debt is measured as total debt at year *t* minus total debt at year *t-1 (Source: Worldscope).*
Change in WC	Change in working capital divided by income before extraordinary items. The change in working capital is measured as difference between current assets and current liabilities at year *t* minus difference between current assets and current liabilities at year *t-1 (Source: Worldscope).*
Change in CAPEX	Change in capital expenditure divided by income before extraordinary items. The change in capital expenditure is measured as capital expenditure at year *t* minus capital expenditure at year *t-1 (Source: Worldscope).*
Country-Level Characteristics	
GDP	The natural logarithm of Gross Domestic Product (*Source:* World Bank).
GDP Per Capita	Per capita Gross Domestic Product in US dollars (*Source:* World Bank).
Investment Profile	Time-varying index measuring the government's attitude toward investment. The investment profile is determined by summing the three following components: (1) risk of expropriation or contract viability; (2) payment delays; and (3) repatriation of profits. Each component is scored on a scale from 0 (very high risk) to 4 (very low risk) (*Source:* ICRG).
Quality of Institutions	Time-varying index measuring institutional quality of a country, which is defined by summing the three following components: (1) corruption; (2) law and order; and (3) bureaucratic quality. High score indicates countries with higher institutional quality and vice versa (Source: ICRG).
Recession	Dummy variable equal to 1 if Gross Domestic Product growth is negative in two consecutive quarters within year for a country (*Source:* OECD)
Stock Market Capitalization	The ratio of total market capitalization of listed companies to Gross Domestic Product (*Source:* World Bank).
Private Credit	The ratio of private credit provided to private sector to Gross Domestic Product (*Source:* World Bank).
Democratic Accountability	Time-varying index measuring government's responsiveness to its people. The less responsive government will fall peacefully in democratic society and possibly violently in non-democratic society. High score indicates higher democratic accountability and vice versa (*Source:* ICRG).
Unemployment Rate	Total unemployment as a percentage of total labor force *(Source: World Bank)*.

Table A 2. Macroeconomic and Institutional Dynamics and Changes in Employment Protection:
This table reports the analysis of macroeconomic and institutional dynamics in the year prior to changes in employment protection. The dependent variable is the first difference of Employment Protection (EPL) Index. The variables of interest are lagged value of change in macroeconomic and institutional factors. All variables are defined in Table A1. Inclusion of fixed effects (FE) is indicated at the end. Standard errors are adjusted for heteroscedasticity and clustered by country. t-statistics are in parentheses. Significance at 10%, 5%, and 1% is indicated by *, **, and ***, respectively.

Variables of Interests	GDP Growth	Per Capita GDP	Stock Market Capitalization	Private Credit	Unemployment Rate	Investment Profile	Quality of Institutions	Union Density	Bargaining Coverage
	0.001	-0.016	0.000	0.000	-0.018	0.018	-0.048	-1.213	-0.719
	(1.38)	(0.11)	(0.60)	(0.45)	(1.59)	(1.38)	(1.55)	(1.37)	(1.62)
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	583	584	517	548	462	557	578	440	434
Adjusted R^2	0.959	0.959	0.961	0.958	0.969	0.965	0.961	0.975	0.981