Corporate Payout and Economic Policy Uncertainty in the U.S.

Eyad Alhudhaif *

Darla Moore School of Business, University of South Carolina

Draft

October, 2021

Abstract

Using a sample of all public firms in the U.S. between 1985 and 2019, I examine whether general economic policy uncertainty, monetary policy uncertainty, and fiscal policy uncertainty have heterogeneous effects on corporate payouts; mainly dividends and open market share repurchases. I find a consistent negative relation between share repurchases and EPU, and the effect seems to be more pronounced under fiscal policy uncertainties as appose to monetary policy uncertainties. Finally, the negative relation is mainly driven by capital constrained firms. Taken together, the findings suggest that withholding funds is more valuable than dispersing cash to investors to mitigate agency costs of free cash flows, at least in the United States. This empirical test relies on the economic policy uncertainty (EPU) index and its subcategories developed by Baker et al., 2016.

JEL Code : G30; G32

Keywords : Payout Policy, Share Repurchases, Dividends, Economic Policy Uncertainty

*Email: eyad.alhudhaif@grad.moore.sc.edu

1 Introduction

Governments often make decisions that affect the environment in which businesses operate. The uncertainty of when, what, and how these policies are implemented can influence corporate decisions, and in some circumstances delay them ; "*In their discussion of their economic forecasts, participants emphasized their considerable uncertainty about the timing, size, and composition of any future fiscal and other economic policy initiatives...* "[1]. Thus, the study of economic policy uncertainty has caught the attentions of academics and policy makers alike. Recent work in the literature investigates the implications of economic policy uncertainty on corporate investment and growth (Baker et al., 2016; Gulen and Ion, 2016), firms' cost of capital and innovation (Xu, 2020), and managerial behavior (Stein and Wang, 2016). Nevertheless, this area of research is still at its early stage.

Using a sample of all public firms in the U.S. between 1985 and 2019, I examine whether general economic policy uncertainty, monetary policy uncertainty, and fiscal policy uncertainty have heterogeneous effects on corporate payouts; mainly dividends and open market share repurchases. This empirical test relies on the economic policy uncertainty (EPU) index developed by Baker et al., 2016. Economic policy uncertainty broadly refers to uncertainties regarding government actions that have direct implication on the economic environment (Attig et al., 2021). Since policy uncertainty is difficult to quantify, Baker et al., 2016 develops an index (EPU Index) based on news articles to capture uncertainties on who, what, and when economic polices are changing. The index contains subcategories that measure the level of uncertainties related to monetary, fiscal, taxation, government spending, and healthcare policies. This paper attempts to find further insight in understanding what specific components of uncertainties trigger changes in corporate payout decisions.

[1] From the minutes of the Federal Open Market Committee meeting in December 2016.

Theoretically, firms' response in payout policy following changes in the level of uncertainty can go either way. On one hand, higher levels of EPU can increase the amount of free cash flows at the firm's balance sheet due to fewer positive NPV projects available in the market. With such higher information asymmetries during abnormal levels of uncertainty, shareholders may require higher payout levels to reduce management's ability to invest in value-destroying projects. Thus, positive changes in EPU can lead to higher managerial agency costs, which can be mitigated by an increase in corporate payout levels. On the other hand, during periods of elevated uncertainty, the external cost of capital rises (Xu, 2020), implying a greater need for internally generated cash by the firm to fund current and future projects. The trade offs are plausibly affected by the source of the policy uncertainty as well. Monetary policies may have long term effects on prices and accepting long-term NPV projects, while fiscal policy can be seen by the firm as a relatively temporary change in the economic environment. This paper is closely related to Attig et al., 2021. While they examine dividend policies following changes in EPU in an international setting, this paper examines payout policies (Dividends and Share Repurchases) and subcategories of economic policy uncertainties in U.S. based firms. The empirical test may provide further insight on corporate payout policies following periods of high EPU when the overall level of investor protection is high (La Porta et al., 2000). In addition, what specific policy uncertainties governments may need to reduce for an efficient allocation of capital in the market.

After controlling for main corporate payout variables, along with other sources of uncertainties, I find a consistent negative relation between share repurchases and EPU. Economically, a 1 standard deviation change in the EPU index from the sample mean is related to roughly 1.91% decrease in share repurchases or 3.63% in total payout. Further, the effect seems to be more pronounced under fiscal policy uncertainties as appose to monetary policy uncertainties. In addition, I document mild evidence of a negative relation between dividends and monetary policy uncertainty. Finally, the negative relation between payout and EPU is mainly driven by capital constrained

firms. Taken together, the findings suggest that withholding funds is more valuable than dispersing cash to investors to mitigate agency costs of free cash flows, at least in the United States.

The paper is organized as follows. Section 2 reviews the related literature. Section 3 develops the hypotheses. Section 4 describes the data used for this study, section 5 examines payout choices and EPU subcategories, section 6 conducts additional robustness checks, and section 7 concludes.

2 Literature Review

One of the classical theories rationing corporate cash disbursements is Jensen's free cash flow hypothesis (Jensen, 1986). That is, managers engage in a payout policy to reduce the excess amount of cash at management's disposal. The argument implies a firm is more likely to take an action if it has experienced reductions in future growth opportunities. Otherwise, the excess cash might be used for value destroying projects or managerial empire building. Payout policy models, the likes of Easterbrook, 1984; Grossman and Hart, 1982, illustrate how the amount of cash returned to shareholders will ultimately lead to reductions in both agency issues and shareholder expropriation.

Methods in distributing the excess cash from the firm involve either the use of dividends or open market share repurchases, as both act as substitutes in reducing agency costs (Grullon and Michaely, 2002). However, managers may prefer one alternative over the other, depending on the cyclical nature of the firm's excess cash flow. A dividend policy is expected by shareholders if the stream of future excess cash flows are increasing, while open market share buybacks are unexpected initiations by managers due to the temporary increase in excess cash funds. Thus, firms with higher variance in their operating cash flows tend to prefer the latter over the former

(Grullon and Michaely, 2002). The substitution argument however does not necessarily assume that both alternatives are equally effective in mitigating managerial agency costs. Brav et al., 2005 survey 384 financial executives regarding firm payout policies, and they find, among other things, that a share buyback program is perceived to be less effective at resolving agency conflicts, while a firm's level of corporate governance play a significant role in determining management payout choice. As a result, examining the two methods of payout separately and collectively during periods of elevated agency issues can provide a unique view to managerial view on EPU and fiscal vs. monetary policy uncertainty. That is, whether managers, in their determination of payout policy, perceive the levels of uncertainty to continue in the future, and which uncertainty source matters. Following Miller and Rock, 1985 rationale, in periods of high uncertainty, such as uncertainties in future economic policies, the level of information asymmetry is heighten. As such, an insider manager incurs a higher signaling cost leading to higher levels of dividends than under the full-information optimum.

Uncertainty, specifically economic policy uncertainty, has become an important subject in recent empirical studies due its implications on corporate decisions. The change in uncertainty translates to changes in the minds of consumers, managers, and policy makers about possible future states. For example, uncertainty around fiscal policies may have a negative impact on firms that rely on government spending and uncertainty around monetary policies may have a negative effect on firms that expect future cash flows in the long-term. Bloom, 2014 defines economic uncertainty as a mixture of risk and uncertainty in the stock market, and the country's future economic performance. Thus, uncertainty levels increase during recessions, and decrease during economic booms. Uncertainty is mostly triggered by shocks of bad news, which amplifies recessions further, leading to slow economic growth. In such circumstances, many managers reevaluate their corporate decisions, or withhold these decisions until the uncertainty declines, since these policies may alter the firm's financial and investment choices. Theoretical arguments

suggest that managers facing elevated uncertainties are better off postponing the investment decision until these levels return to normal (Dixit et al., 1996; McDonald and Siegel, 1986). Furthermore, managers should postpone irreversible investments since they carry high reversibility costs, and a rise in the level of uncertainty changes the optimal timing of investments due to the real-option feature of investment (Bernanke, 1983).

One of the main challenges in this strain of research is finding an appropriate measure for economic policy uncertainty. An increasingly common proxy used in the literature is the EPU index developed by Baker et al., 2016. The index comprises mainly of the number of articles in the top ten leading newspapers containing keywords such as "Uncertainty", "Economy", and one or more of "Congress, deficit, Federal Reserve, legislation, regulation, White House", then normalized by the total volume of news articles. The authors construct subcategories of the index that adds additional terms to the main index to measure specific economic uncertainties. For example, articles that fulfill the requirements to be categorized in the EPU and also contain the term 'federal reserve' would be included in the monetary policy uncertainty (MPU) sub-index. Baker et al., 2016 find a positive and significant relation between the proposed index and stock price volatility, as well as a negative relation with investment and employment in sectors that are heavily reliant on government policies, such as healthcare and defense, supporting Bernanke, 1983; Dixit et al., 1996; McDonald and Siegel, 1986 conclusions. Gulen and Ion, 2016 document a strong negative relationship between capital investment and the level of uncertainty[2] associated with future policy outcome. The relation is not constant across firms; it is stronger for firms with higher degrees of investment irreversibility and for firms that are more dependent on government spending. These conclusions support other findings in the empirical literature; Jens, 2017. Stein and Wang, 2016 documents a positive relation between earnings management and uncertainty. By observing lower stock price responses to earnings surprises when uncertainty is high, they argue, during

[2]Using the index developed by Baker et al., 2016.

periods of high uncertainty, performance is more likely to be attributed to luck rather than skill and effort. Thus, creating an incentive for managers to shift earnings toward lower uncertainty periods.

In addition to corporate investment policy, economic uncertainties commands an equity risk premium as well, due to undiversifiable political risk (Pástor and Veronesi, 2012, 2013), making equity financing more costly during periods of elevated uncertainty. However, similar to any other risk factor, firms' exposure to political risk varies. To some, the cost of equity becomes high enough to turn a subset of positive NPV projects to negative. In addition, economic uncertainty can affect the cost of debt as well through its influence on firms' default risk (Arnott et al., 1994). As Xu, 2020 demonstrates, economic policy uncertainty affects a firm's weighted average cost of capital (WACC), which in turn affects investment policies (Abel and Blanchard, 1986; Gilchrist and Zakrajsek, 2007). Thus, a higher cost of capital may create financing frictions, where firms rely more on internal funds rather than external financing (Kaplan and Zingales, 1995; Myers and Majluf, 1984). Since government expenditure has become very important in recent decades, increasing from 25% of U.S. GDP during the late 30s to almost 40% of GDP in the late 2000s [3], some sectors in the economy rely heavily on government expenditures. Thus, fiscal policy uncertainty may play an even bigger role in corporate payouts, affecting future cash flows for some firms, and thus leading to a higher political risk premium. With the rise in the cost of capital, managers may prefer to raise funds internally over increasing or maintaining their payouts to shareholders.

[3]The estimates regarding government expenditures are obtained from the website: https://www.usgovernmentspending.com

3 Hypothesis Development

In light of the previous findings in the literature, the free cash flow hypothesis described by Jensen, 1986 suggests that excess funds are the main source of agency conflict between managers and shareholders. Since in periods of high economic policy uncertainty, investments decline due to low investment opportunities (Baker et al., 2016; Gulen and Ion, 2016), and excess free cash flows rise, there may be a higher demand from shareholders for cash disbursement, i.e. larger payouts. Furthermore, periods of elevated uncertainty amplify information asymmetry between outsiders and insiders, and thus, as Miller and Rock, 1985 conclude, a higher signaling cost through larger payouts may be required by outside investors. Together, both views suggest a positive association between uncertainty and payouts. On the other hand, during periods of high economic uncertainty, cost of external financing soars due to higher political risk premiums; Pástor and Veronesi, 2012, 2013; Xu, 2020, and therefore, encouraging firms to prefer internally generated funds over external financing when needed. In addition, for firm's that have a higher risk loading on political risk premiums, the preference may be of longer term.

Taking both views into consideration, the direction of the relationship between uncertainty and payout policy can go either way, and an empirical test may provide a useful insight. Thus, in this paper I test the following hypothesis:

Hypothesis 1A : A change in the level of U.S. economic policy uncertainty is associated with a firm's payout policy, and the direction of the association can go either way.

In addition, it is worthwhile to examine whether this relationship is stronger among firms that are capitally constrained, since such type of firms face a stronger rise in the cost of external financing:

Hypothesis 1B : A change in the level of U.S. economic policy uncertainty is associated with a stronger change in a firm's payout policy among capitally constrained firms.

4 Sample Construction

The sample comes from several sources. Firm fundamentals are drawn from the annual CRP-Compustat merged dateset. I keep all reports for U.S. public firms between calendar years 1983 - 2019. I then exclude firms operating in the utility and financial sectors (SIC codes 6000-6999 and 4900-4999) since the regulatory restrictions they face may prevent such firms from adjusting their payout policies freely. These filings are then merged with the monthly economic policy uncertainty index developed by Baker et al., 2016[4]. Firm-year observations reporting negative values for dividends, total assets, or total revenue are dropped. The primary payout measures are stock repurchases, dividends, and total payout all scaled by total revenue[5]. That is, prstkc, div, (prstkc+ div) divided by sale, respectively. Alternatively, payouts are scaled by the firm's market value of equity ((csho * prcc_f)+ dlc + dltt + pstkl - txditc). According to Chay and Suh, 2009, cash flow uncertainty plays a significant role in payout policy; higher uncertainty leads to lower payout levels. Following their approach, I proxy for cash flow uncertainty by measuring the standard deviation of the last 12 monthly stock returns. Other standard control variables include firm size (log(at)), Market-to-book ratio, Free cash flow (FCF), Leverage Ratio, ROA, Cash Holdings, Retained Earnings, Equity Ratio, and the natural log of sales growth (Log((sale/$sale_{t-1}$)+1)).

The variables of interest include measures of economic policy uncertainty (EPU) covering specific areas of policies, mainly monetary and fiscal policies. The categorical EPU index provided by Baker et al., 2016 is based only on news data, and adds additional restrictions on the terms

[4]The monthly values are available at https//www.policyuncertainty.com.

[5]I report alternative measures of payout using market value of equity as a robustness check.

depending on each category. For example, articles that fulfill the requirements to be categorized in the EPU and also contain the term 'federal reserve' would be included in the monetary policy uncertainty (MPU) sub-index. The categories examined in this article includes the main EPU index, Monetary Policy Uncertainty (MPU), Fiscal Policy Uncertainty (FPU), Tax Policy Uncertainty (TPU), Government Spending Policy Uncertainty (GSU), and Healthcare Policy Uncertainty (HPU). To measure each firm-year's exposure to these sub-categories, I average the past 12 months of the EPU index (and the subcategories separately) leading to the date of the financial statement report.

Finally, I supplement the sample with variables that proxy for other macro-level uncertainties. Following Gulen and Ion, 2016, I use the Michigan Consumer Confidence Index[6] (CCI) to proxy for the overall level of confidence in the economy. To control for political uncertainty, I obtain data on political party votes[7] and estimate the level of political polarization among government representatives in the senate and the house of representatives (Political Polarization). The degree of polarization is estimated using the method proposed by Lewis and Poole, 2004. I average the two polarization indices for each chamber (House of Representatives and the Senate) during each period. Additionally, I control for economic uncertainty using the average analyst dispersion on future GDP forecasts from the Federal Reserve Bank of Philadelphia (GDP Forecast Dispersion). Specifically, I estimate the average dispersion between the 25^{th} and 75^{th} percentile of forecasts for the next 4 quarters during the quarter time t. The final sample includes roughly 120,000 firm-year observations for 7,350 firms between calendar years 1985 and 2019. Table 1 reports the summary statistics for the final sample. The virtually all the variables reported follow distributions found in other empirical works in the literature (Chay and Suh, 2009; Cuny and Martin, Gerald S. Puthenpurackal, 2009; Fenn and Liang, 2001; Grullon and Michaely, 2002).

[6]The index measures consumers' level of expectation regarding future economic conditions. The index can be obtained from https://www.sca.isr.umich.edu.

[7]Data is obtained from https://voteview.com/.

4.1 Time Trends

Figures 1 and 2 depicts the time trend for the cross-sectional mean of the two components of corporate payout and the rolling 12-month average of the EPU index and its subcategories from 1985 to 2019. At first glance, both payout policies seem to have a negative correlation with the EPU and its subcategories. Note, however, that both the index and corporate payouts (especially dividends) follow a cyclical pattern across time. The cyclicality pattern in the EPU index is arguably due to increase news coverage around routine government agency meetings or reports, such as the Federal Reserve report. The cross-sectional average of dividends tend to have consistent spikes around the third quarter of each calendar year. Thus, firms reporting their fiscal year statements during the third quarter tend to have relatively higher dividends than firms reporting their statements during other periods. The main highlight from these figures is that seasonality is an important component in both the EPU index and corporate payouts, and one needs to control for the seasonality effect.

5 Empirical Analysis

5.1 Corporate Payout and Economic Policy Uncertainty

To examine the effects of economic policy uncertainty on corporate payout, I start with the baseline panel OLS estimation taking the form:

$$Payout_{i,t} = \alpha_i + \beta Log(Uncer.)_{i,t-1} + \gamma' X_{t-1} + \delta' Y_{t-1} + \kappa_j + \nu_z + \epsilon_{i,t} \tag{1}$$

Where $Payout_{i,t}$ is firm i's payout ratio multiplied by 100 for fiscal year t. X_{t-1} is a vector of control variables commonly used in the payout literature (Chay and Suh, 2009; Cuny and Martin, Gerald S. Puthenpurackal, 2009; Fenn and Liang, 2001; Grullon and Michaely, 2002) lagged by one period. Y_{t-1} is a vector of macro-level uncertainties, mainly the GDP Forecast Dispersion level and the Consumer Confidence Index. α_i is a firm fixed effect, κ_j is an industry fixed effect, and ν_z is a quarter fixed effect for firm i's report date since payouts tend to have a seasonal component; see figures 1 and 2. The coefficient of interest is β, which estimates the effect of EPU (or its subcategories) on corporate payout.

Table 2 reports the results using the main EPU index when estimating dividends, share repurchases, and total payout. Most of the control variables have their expected signs across the different specifications. The coefficient of interest is negative and statistically significant for share repurchases and total payout, while the estimation model for dividends in column 3 suggests no significant relation. In economic terms, a 1 standard deviation change (27.36) in the EPU index from the sample mean (97.59) is related to roughly 1.91% decrease in share repurchases or 3.63% in total payout. The results in column 3 contrasts the findings documented by Attig et al., 2021. Two potential factors may explain why the results could be different when using the U.S. sample. First, the overall level of managerial agency costs in the U.S. are relatively lower compared to the rest of the world due to the relatively higher levels of investor protection, and thus, dividend effectiveness in mitigating agency costs is higher (La Porta et al., 2000). As such, the net benefit of preserving internally generated cash during periods of economic uncertainty outweighs the increased agency costs of free cash flow. Second, the different taxation rates between capital appreciation and income during the sample period may have an influence on the effect of EPU on payout policy in general.

Table 3 reports the results using the subcategories of the EPU index. Panels B through E suggests

that the negative effect of EPU on share repurchases comes primarily from fiscal policy uncertainties (i.e., taxation and government spending), while dividends respond negatively mainly from monetary policy uncertainties. Share repurchases is a managerial discretion choice, and thus, there is no commitment from managers on the level of payout compared to dividends. The results from table 3 suggests that firms withhold funds used for share repurchases when fiscal policy uncertainty arises as appose to monetary policy uncertainties. Perhaps view fiscal uncertainties to be temporary while monetary policy uncertainties have a lasting effect on firm fundamentals, such as the cost of capital (Pástor and Veronesi, 2012, 2013). Table 4 replicates table 3 while using the market value of equity as the denominator instead of total sales. Consistent with the previous estimates, share repurchases remains negative and statistically significant at the 1% level. Taken together, increases in economic policy uncertainty leads to lower share repurchases, and the effect is more pronounced with uncertainties related to fiscal policy compared to monetary ones.

5.2 The Capital Constraint Channel

Results from the previous section suggest that internally generated funds become more valuable during periods of elevated EPU. If such a relation exists, then the effect of EPU and its subcategories on corporate payout should be more pronounced among firms that have higher barriers accessing external capital markets. Thus, in this section I test whether the effect of EPU is larger among firms that have relatively high capital constraints. Following Hadlock and Pierce, 2010, I first estimate a capital constraint score (SA Index) for each firm-year calculated as $(-0.737 \times Size) + (0.043 \times Size^2) - (0.04 \times Age))$. Size is the natural log of total assets adjusted to 2004 dollars and capped at $4.5 billion. Age is the number of years the firm is in the Compustat universe with non missing equity price if the IPO date is missing. Otherwise, age is the number of years since the IPO year, and capped at 37. A firm is categorized to be capitally constrained if the

SA index is lower than the yearly median[8]. I then re-estimate equation 1 on the two sub-samples. Tables 5 and 6 report the results for all three payout policies using the EPU subcategories. The results are consistent with the increase value of internally generated funds following heightened episodes of fiscal policy uncertainty. Interestingly, higher levels of monetary policy uncertainty lead unconstrained firms to increase share buybacks and constrained firms to decrease dividends.

6 Robustness

6.1 Endogeneity

Uncertainty levels in economic policy can be the result of other factors in the economy that also affect corporate payouts. To alleviate endogeneity concerns from my analysis, I estimate a 2 Stage Least Squares regression. The first stage estimates the level of EPU due to exogenous changes in the political environment, and the second stage estimates firm payouts using the predicted value from the first stage. Exogenous changes in the political environment are proxied by the level of political polarization. Specifically, The degree of polarization is measured using the method proposed by Lewis and Poole, 2004. I average the two polarization indices for each chamber (House of Representatives and the Senate) during each period. Thus, the following regressions are estimated:

$$\begin{aligned} \text{Log}(\text{Index})_{i,t} = \alpha_i + \gamma' X_{t-1} + \delta' Y_{t-1} \\ + \kappa_j + \nu_z + \epsilon_{i,t} \end{aligned} \tag{2}$$

[8]Using the yearly mean yields similar results.

and the second stage takes the form:

$$\begin{aligned} Payout_{i,t,j,z} = \alpha_i + \beta Log(\widehat{Index})_{i,t} \\ + \gamma' X_{t-1} + \delta' Y_{t-1} \\ + \kappa_j + \nu_z + \epsilon_{i,t} \end{aligned} \tag{3}$$

Table 7 report the results for the second stage regressions. The effect of EPU on payout policy is negative and more pronounced across the three different payout methods.

7 Concluding Remarks

Investors' confidence in being able to predict future economic policy changes are essential to maintain growth and flow of capital to the firm, especially fiscal policy. In this paper, I find evidence of a negative effect of economic policy uncertainty on corporate payouts. The effect is more pronounced on share buybacks, and capitally constrained firms. The results suggest that uncertainties related to future government spending may have a negative effect by creating capital frictions, and thus, firms that have potential growth are restricted to only internally generated cash flows. Future tests examining the relation between changes in uncertainties and cash levels on balance sheet may provide an additional insight to how payout policy decisions are made with relation to cash levels at the firm, and therefore, add a deeper understanding of corporate behavior during episodes of fiscal and monetary uncertainties.

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Tables and Figures

Table 1: Descriptive Statistics

	SD	Mean	Min	Median	Max	N
Payout Variables:						
DIV_SALE	0.028	0.010	0.000	0.000	0.192	153,091
REPUR_SALE	0.046	0.016	0.000	0.000	0.307	143,749
TOTAL_PAY_SALE	0.065	0.028	0.000	0.002	0.417	143,749
DIV_MVE	0.019	0.010	0.000	0.000	0.106	152,933
REPUR_MVE	0.034	0.013	0.000	0.000	0.218	143,535
TOTAL_PAY_MVE	0.045	0.024	0.000	0.003	0.274	143,535
EPU and EPU Subcategories:						
Log(EPU)	0.292	4.540	4.026	4.528	4.989	134,915
Log(MPU)	0.348	4.469	3.676	4.527	5.128	134,915
Log(FPU)	0.426	4.523	3.731	4.576	5.313	134,915
Log(TPU)	0.412	4.530	3.798	4.500	5.349	134,915
Log(GSU)	0.644	4.415	3.039	4.435	5.496	134,915
Log(HPU)	0.532	4.568	3.627	4.599	5.667	134,915
Firm Characteristics:						
ROA	0.224	-0.029	-1.229	0.033	0.250	137,690
FCF	0.210	0.001	-1.034	0.054	0.326	136,090
LEV	0.205	0.270	0.001	0.239	0.970	118,976
Market-to-Book	1.592	1.659	0.273	1.127	10.032	132,736
CASH	0.203	0.174	0.001	0.092	0.876	136,895
RET_EARN	3.949	-0.735	-27.807	0.338	1.834	130,989
EQUITY_RATIO	0.220	0.515	0.043	0.509	0.944	132,384
SGR	0.209	0.764	0.246	0.735	1.877	137,695
SIZE	2.258	5.291	0.778	5.151	10.871	137,349
$\sigma(\mathrm{RETURNS})$	0.098	0.165	0.039	0.141	0.584	107,908
Measures of Uncertainty:						
CCI	11.599	87.804	62.317	90.792	108.158	153,639
Political Polarization	0.073	0.709	0.593	0.718	0.854	153,639
GDP Forecast Dispersion	0.566	1.420	0.767	1.279	3.425	153,639

This table reports the descriptive statistics for the final sample used to examine corporate payouts following changes in economic policy uncertainty.DIV_SALE is dividends over total sales (dvc/sale). REPUR_SALE is total share buybacks during the fiscal year over total sales (prstkc / sale). TOTAL_PAY_SALE is the sum of DIV_SALE and REPUR_SALE. DIV_MVE is dividends over the market value of equity (dvc/mve), where mve is the sum of ((csho * prcc_f)+ dlc + dltt+ pstkl - txditc). REPUR_MVE is total share buybacks during the fiscal year over market value of equity (prstkc / mve). TOTAL_PAY_MVE is the sum of DIV_MVE and REPUR_MVE. Log(EPU) is the natural log of the firm's exposure to the EPU index, measured as the 12-month average of the monthly EPU index leading to the date of the financial report. The EPU index and its subcategories (Monetary Policy Uncertainty (MPU), Fiscal Policy Uncertainty (FPU), Tax Policy Uncertainty (TPU), Government Spending Policy Uncertainty (GSU), and Healthcare Policy Uncertainty (HPU)) are developed by Baker et al., 2016. Size is Ln(at). ROA is (ib / at). FCF is the firm's free cash flow estimate ((oibdp - capx) / at). RET_EARN is the level of retained earnings over common equity (re/ceq). LEV is book leverage ((dlc + dltt) at). CASH is (che /at). EQUITY_RATIO is (ceq/at). SGR is the log of sales growth (Log(sale/ sale_{t-1})). $\sigma(\mathrm{RETURNS})$ is the standard deviation of the firm's monthly returns using the last 12 months. Companies with SIC codes (6000-6999, 4900-4999) are excluded from the sample. All continuous variables are winsorized at the 1st and 99th percentile.

Table 2: Corporate Payout and EPU

	Total Payout		Dividends	Share Repurchases
	(1)	(2)	(3)	(4)
Log(EPU)	-1.01***	-0.67***	-0.07	-0.53***
	(-14.77)	(-5.20)	(-1.61)	(-5.33)
ROA		1.17***	0.24**	0.60***
		(4.12)	(2.57)	(2.83)
FCF		0.69**	0.29**	0.61***
		(2.14)	(2.43)	(2.64)
LEV		-1.47***	-0.46***	-1.12***
		(-3.20)	(-2.87)	(-3.23)
Market-to-Book		0.11***	0.03*	0.09***
		(3.06)	(1.96)	(3.19)
CASH		3.33***	0.64***	2.18***
		(8.66)	(5.30)	(7.47)
RET_EARN		-0.06***	-0.02***	-0.04***
		(-5.31)	(-6.24)	(-4.51)
EQUITY_RATIO		1.59***	0.37**	0.86**
		(3.45)	(2.38)	(2.55)
SGR		-1.30***	-0.25***	-0.88***
		(-8.86)	(-7.25)	(-7.93)
SIZE		0.91***	0.16***	0.72***
		(15.11)	(7.65)	(15.80)
σ(RETURNS)		-2.07***	-0.69***	-1.22***
		(-6.17)	(-6.50)	(-4.84)
CCI		-0.00	-0.01***	0.01**
		(-0.01)	(-4.54)	(2.55)
GDP Forecast Dispersion		0.17**	-0.10***	0.25***
		(2.06)	(-2.94)	(3.99)
Constant	7.80***	0.63	1.09***	-0.63
	(23.95)	(0.63)	(3.10)	(-0.84)
Observations	125372	59776	64422	59776
Firm, Ind. & Quarter FE		Yes	Yes	Yes
No. Firms	14,131	7,350	7,666	7,350
R-squared	0.00	0.37	0.56	0.29

This table reports the Panel OLS regression results from estimating equation 1. Dependent variables are corporate payouts (Total, dividends, and share repurchases) scaled by total sales. Log(EPU) is the natural log of the firm's exposure to the EPU index, measured as the 12-month average of the monthly EPU index leading to the date of the financial report. The EPU index and its subcategories (Monetary Policy Uncertainty (MPU), Fiscal Policy Uncertainty (FPU), Tax Policy Uncertainty (TPU), Government Spending Policy Uncertainty (GSU), and Healthcare Policy Uncertainty (HPU)) are developed by Baker et al., 2016. See section 4 for further details on all variable definitions. All independent variables are lagged one period. Companies with SIC codes (6000-6999, 4900-4999) are excluded from the sample. All continuous variables are winsorized at the 1st and 99th percentile. Error terms are clustered at the firm level. * p < 0.1, ** p < 0.05, *** p < 0.01. t-statistics in parentheses.

Table 3: Corporate Payout and EPU Sub-categories

	Total Pay	Div.	Shr. Repur.
Log(MPU)	-0.09	-0.19***	0.06
	(-1.13)	(-6.51)	(1.02)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.37	0.56	0.29
		Panel (B)	
Log(FPU)	-0.45***	-0.02	-0.39***
	(-5.32)	(-0.55)	(-6.00)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.37	0.56	0.29
		Panel (C)	
Log(TPU)	-0.49***	-0.04	-0.41***
	(-5.99)	(-1.32)	(-6.45)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.37	0.56	0.29
		Panel (D)	
Log(GSU)	-0.27***	0.01	-0.25***
	(-4.61)	(0.44)	(-5.68)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.37	0.56	0.29
		Panel (E)	
Log(HPU)	-0.83***	-0.08***	-0.68***
	(-10.43)	(-2.93)	(-11.03)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.37	0.56	0.29

This table reports the Panel OLS regression results from estimating equation 1. Dependent variables are corporate payouts (Total, dividends, and share repurchases) scaled by total sales. Log(EPU) is the natural log of the firm's exposure to the EPU index, measured as the 12-month average of the monthly EPU index leading to the date of the financial report. The EPU index and its subcategories (Monetary Policy Uncertainty (MPU), Fiscal Policy Uncertainty (FPU), Tax Policy Uncertainty (TPU), Government Spending Policy Uncertainty (GSU), and Healthcare Policy Uncertainty (HPU)) are developed by Baker et al., 2016. See section 4 for further details on all variable definitions. All independent variables are lagged one period. Companies with SIC codes (6000-6999, 4900-4999) are excluded from the sample. All continuous variables are winsorized at the 1st and 99th percentile. Error terms are clustered at the firm level. * p < 0.1, ** p < 0.05, *** p < 0.01. t-statistics in parentheses.

Table 4: Corporate Payout and EPU Sub-categories

	Total Pay	Div.	Shr. Repur.
Log(MPU)	0.37***	-0.02	0.34***
	(6.03)	(-1.01)	(6.85)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.22	0.50	0.16
		Panel (B)	
Log(FPU)	-0.28***	0.02	-0.28***
	(-4.86)	(1.05)	(-6.08)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.22	0.50	0.16
		Panel (C)	
Log(TPU)	-0.31***	0.01	-0.30***
	(-5.41)	(0.38)	(-6.51)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.22	0.50	0.16
		Panel (D)	
Log(GSU)	-0.20***	0.01	-0.19***
	(-4.94)	(0.75)	(-5.93)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.22	0.50	0.16
		Panel (E)	
Log(HPU)	-0.60***	-0.07***	-0.47***
	(-10.75)	(-3.81)	(-10.66)
Controls	Yes	Yes	Yes
Firm, Industry, and Quarter FE	Yes	Yes	Yes
R-squared	0.22	0.50	0.16

This table reports the Panel OLS regression results from estimating equation 1. Dependent variables are corporate payouts (Total, dividends, and share repurchases) scaled by the market value of equity. Log(EPU) is the natural log of the firm's exposure to the EPU index, measured as the 12-month average of the monthly EPU index leading to the date of the financial report. The EPU index and its subcategories (Monetary Policy Uncertainty (MPU), Fiscal Policy Uncertainty (FPU), Tax Policy Uncertainty (TPU), Government Spending Policy Uncertainty (GSU), and Healthcare Policy Uncertainty (HPU)) are developed by Baker et al., 2016. See section 4 for further details on all variable definitions. All independent variables are lagged one period. Companies with SIC codes (6000-6999, 4900-4999) are excluded from the sample. All continuous variables are winsorized at the 1st and 99th percentile. Error terms are clustered at the firm level. * p < 0.1, ** p < 0.05, *** p < 0.01. t-statistics in parentheses.

Table 5: Corporate Payout and EPU (By Level of Capital Constraints)

	Low Capital Constraints			High Capital Constraints		
	Total	Div.	Shr. Repr.	Total	Div.	Shr. Repr.
Log(EPU)	0.23	0.05	0.10	-1.59***	-0.14*	-1.28***
	(1.54)	(1.19)	(0.89)	(-7.34)	(-1.65)	(-7.65)
Observations	27126	29803	27126	23645	25325	23645
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
No. Firms	4,220	4,479	4,220	3,055	3,189	3,055
R-squared	0.31	0.44	0.26	0.46	0.63	0.37

This table reports the Panel OLS regression results from estimating equation 1 using subsamples based on the firm's capital constraint score (SA) developed by Hadlock and Pierce, 2010. Dependent variables are corporate payouts (Total, dividends, and share repurchases) scaled by total sales. Log(EPU) is the natural log of the firm's exposure to the EPU index, measured as the 12-month average of the monthly EPU index leading to the date of the financial report. The EPU index and its subcategories (Monetary Policy Uncertainty (MPU), Fiscal Policy Uncertainty (FPU), Tax Policy Uncertainty (TPU), Government Spending Policy Uncertainty (GSU), and Healthcare Policy Uncertainty (HPU)) are developed by Baker et al., 2016. See section 4 for further details on all variable definitions. All independent variables are lagged one period. Companies with SIC codes (6000-6999, 4900-4999) are excluded from the sample. All continuous variables are winsorized at the 1st and 99th percentile. Error terms are clustered at the firm level. * p < 0.1, ** p < 0.05, *** p < 0.01. t-statistics in parentheses.

Table 6: Corporate Payout and EPU (By Level of Capital Constraints)

	Low Capital Constraints			High Capital Constraints		
	Total	Div.	Shr. Repr.	Total	Div.	Shr. Repr.
Log(MPU)	0.34***	-0.05	0.32***	-0.31**	-0.25***	-0.11
	(3.31)	(-1.48)	(3.92)	(-2.37)	(-4.76)	(-1.04)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.31	0.44	0.26	0.45	0.63	0.37
			Panel (B)			
Log(FPU)	0.06	0.06**	-0.06	-1.23***	-0.12**	-0.98***
	(0.62)	(2.05)	(-0.73)	(-8.39)	(-2.20)	(-8.60)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.31	0.44	0.26	0.46	0.63	0.37
			Panel (C)			
Log(TPU)	0.04	0.06*	-0.07	-1.22***	-0.13**	-0.97***
	(0.41)	(1.85)	(-0.88)	(-8.50)	(-2.41)	(-8.63)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.31	0.44	0.26	0.46	0.63	0.37
			Panel (D)			
Log(GSU)	0.07	0.05**	-0.03	-0.84***	-0.08*	-0.67***
	(1.01)	(2.42)	(-0.53)	(-8.24)	(-1.90)	(-8.58)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.31	0.44	0.26	0.46	0.63	0.37
			Panel (E)			
Log(HPU)	-0.24***	0.04	-0.29***	-1.33***	-0.10*	-1.10***
	(-2.71)	(1.33)	(-4.18)	(-9.77)	(-1.93)	(-10.32)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.31	0.44	0.26	0.46	0.63	0.37

This table reports the Panel OLS regression results from estimating equation 1 using subsamples based on the firm's capital constraint score (SA) developed by Hadlock and Pierce, 2010. Dependent variables are corporate payouts (Total, dividends, and share repurchases) scaled by total sales. Log(EPU) is the natural log of the firm's exposure to the EPU index, measured as the 12-month average of the monthly EPU index leading to the date of the financial report. The EPU index and its subcategories (Monetary Policy Uncertainty (MPU), Fiscal Policy Uncertainty (FPU), Tax Policy Uncertainty (TPU), Government Spending Policy Uncertainty (GSU), and Healthcare Policy Uncertainty (HPU)) are developed by Baker et al., 2016. See section 4 for further details on all variable definitions. All independent variables are lagged one period. Companies with SIC codes (6000-6999, 4900-4999) are excluded from the sample. All continuous variables are winsorized at the 1st and 99th percentile. Error terms are clustered at the firm level. * p < 0.1, ** p < 0.05, *** p < 0.01. t-statistics in parentheses.

Table 7: Corporate Payout and EPU (S2LS)

	(1) Total Payout	(2) Dividends	(3) Share Repurchases
Log(EPU)	-13.07***	-9.47***	-4.85*
	(-3.50)	(-4.47)	(-1.94)
Observations	59378	63992	59378
Controls	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes
No. Firms	7,312	7,631	7,312

This table reports the second stage regression estimates using equations 2 and 3. Dependent variables are corporate payouts (Total, dividends, and share repurchases) scaled by total sales. Log(EPU) is the natural log of the firm's exposure to the EPU index, measured as the 12-month average of the monthly EPU index leading to the date of the financial report. The EPU index and its subcategories (Monetary Policy Uncertainty (MPU), Fiscal Policy Uncertainty (FPU), Tax Policy Uncertainty (TPU), Government Spending Policy Uncertainty (GSU), and Healthcare Policy Uncertainty (HPU)) are developed by Baker et al., 2016. See section 4 for further details on all variable definitions. All independent variables are lagged one period. Companies with SIC codes (6000-6999, 4900-4999) are excluded from the sample. All continuous variables are winsorized at the 1^{st} and 99^{th} percentile. Error terms are clustered at the firm level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. t-statistics in parentheses.

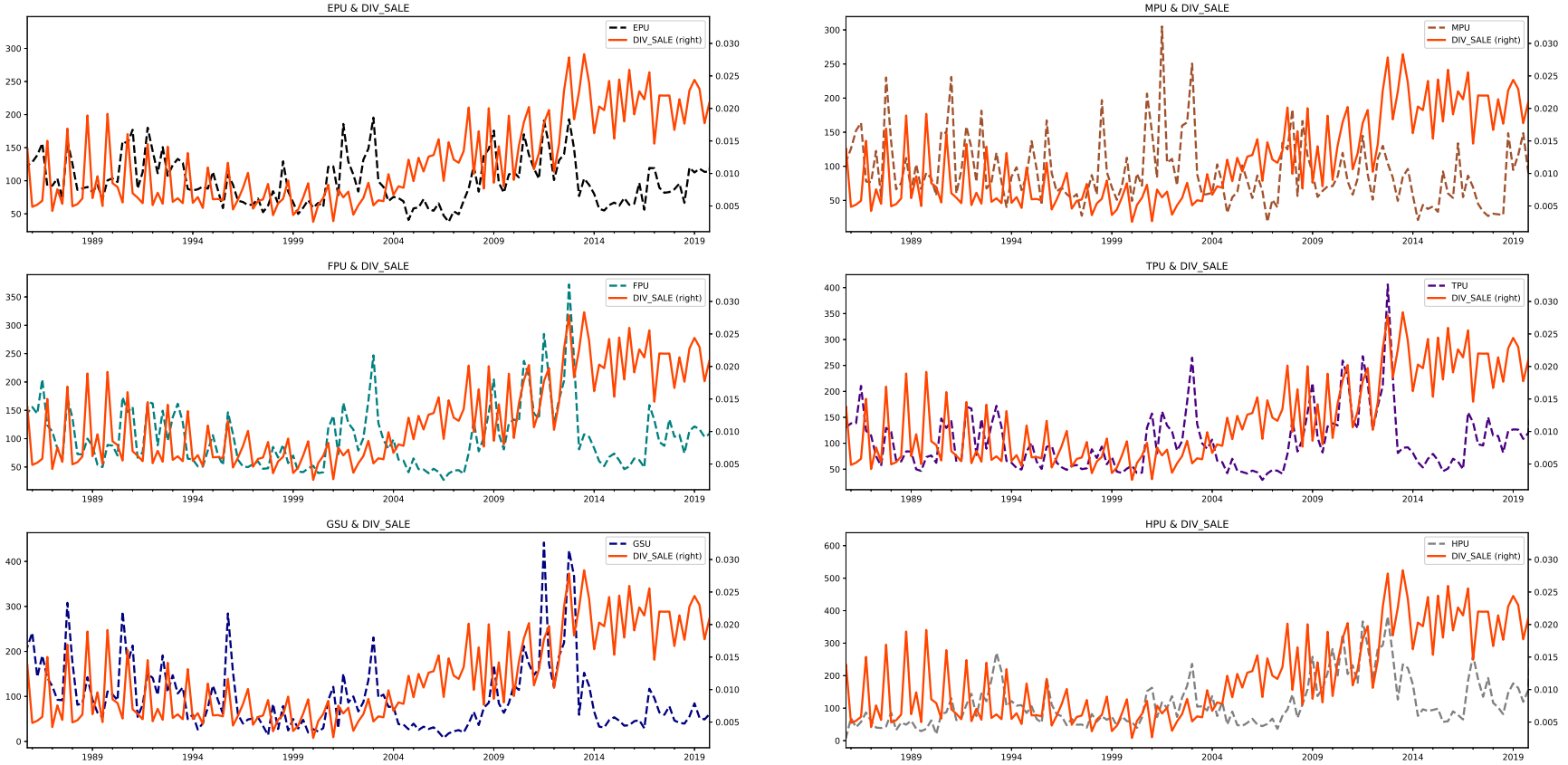

Figure 1: Cross-sectional Average Dividend Payout and Economic Policy Uncertainty (1985-2019)

This figure presents the time trend for the cross-sectional average of dividend payout (divided by total revenue) for a given quarter and the various subcategories of the Economic Policy Uncertainty Index (EPU). EPU and its subcategories are obtained from Baker et al., 2016. Dividend payout ratio is measured as total dividends declared for the fiscal year over total sales (DVC / SALE). The data covers the period from January 1985 to the end of November 2019.

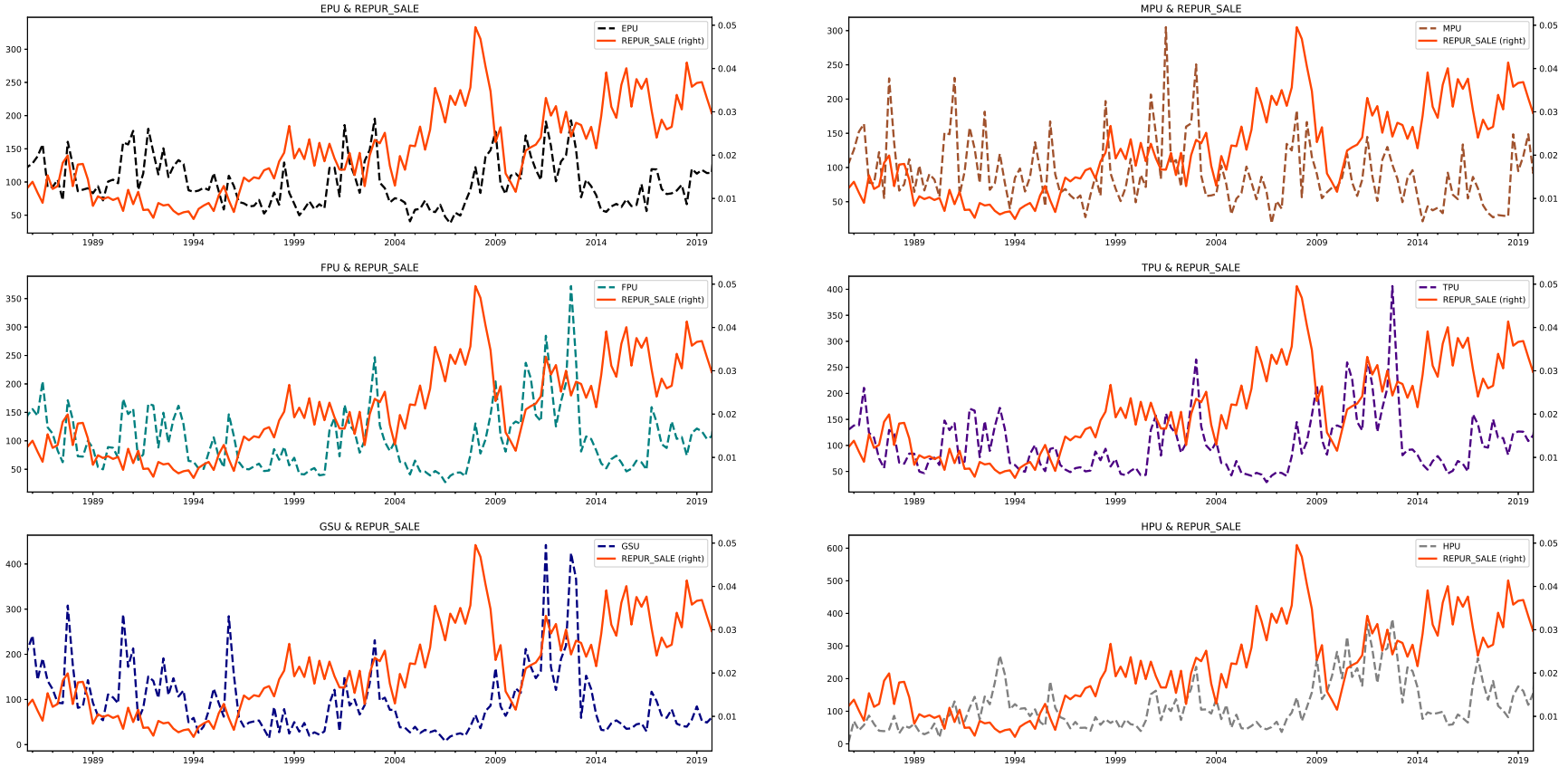

Figure 2: Cross-sectional Average Share Repurchases and Economic Policy Uncertainty (1985-2019)

This figure presents the time trend for the cross-sectional average of share repurchases for a given quarter and the various subcategories of the Economic Policy Uncertainty Index (EPU). EPU and its subcategories are obtained from Baker et al., 2016. Share buyback ratio is measured as the total shares repurchased for the fiscal year over total sales (PRSTK / SALE). The data covers the period from January 1985 to the end of November 2019.