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Policy uncertainty and firm cash holdings☆,☆☆

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ABSTRACT

This research examines the relation between government economic policy uncertainty and firm cash holdings. We find evidence that policy uncertainty is positively related to firm cash holdings due to firms' precautionary motives and, to a lesser extent, investment delays. The relation between policy uncertainty and cash holdings is more pronounced for firms dependent on government spending and extends beyond business cyclicality. Further analysis indicates that the effects of policy uncertainty on corporate cash holdings are distinct from those of political, market, or other macroeconomic uncertainty.

1. Introduction

Government economic policy uncertainty can have detrimental effects on the economy. Previous research suggests that uncertainty related to government spending, tax, and regulatory and monetary policies exacerbated the 2007–2009 Great Recession and slowed the economic recovery (Baker, Bloom, & Davis, 2016; Stock & Watson, 2012). The level of policy uncertainty in the United States increased significantly during the period 1985–2012, peaking around the government's failure in raising federal debt-ceiling in August 2011 and the fiscal cliff crisis at the end of 2012 whereby several previously enacted laws would come into effect simultaneously, potentially leading to an increase in taxes and a decrease in spending.[1] Economic policy uncertainty was suggested to have caused more than one-percentage-point decrease in the U.S. real gross domestic product (GDP) and the loss of over one million jobs during the period 2011–2012 (source: Wall Street Journal, April 28, 2013).[2] Given the profound impact of policy uncertainty on the economy, academic researchers have shown increasing interest in investigating the effects of policy uncertainty on corporate policies.

Recent studies document that government economic policy uncertainty has negative financial and real effects. Gulen and Ion (2016) and Nguyen and Phan (2017) report that firms are more likely to delay investments, particularly those that are irreversible, amid high economic policy uncertainty. Policy uncertainty can increase the cost of external financing, which exacerbates firms' financial constraints (Gilchrist, Sim, & Zakrajšek, 2014; Pástor & Veronesi, 2013).

Cash is an important and liquid corporate asset. The increasing trend in cash holdings of U.S. firms has attracted attention from investors and academic researchers. Bates, Kahle, and Stulz (2009) report that the average cash-to-assets ratio of U.S. industrial firms more than doubled during the period 1980–2006, increasing from 10.5% to 23%. Previous studies offer several explanations for corporate cash holdings, including transaction costs (Mulligan, 1997), precautionary motives (Bates et al., 2009; Han & Qiu, 2007; Khieu & Pyles, 2012; Opler, Pinkowitz, Stulz, & Williamson, 1999), corporate governance (Dittmar

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[1] The fiscal cliff was related to the expiration of the Bush tax cuts of 2001 and the planned spending cuts under the Budget Control Act of 2011.
[2] Available at http://www.wsj.com/articles/SB10001424127887323789704578443431277889520, last accessed on May 22, 2016.

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& Mahrt-Smith, 2007; Harford, Mansi, & Maxwell, 2008; Kuan, Li, & Chu, 2011), business organization structure (Locorotondo, Dewaelheyns, & Hulle, 2014), tax incentives (Foley, Hartzell, Titman, & Twite, 2007; Pinkowitz, Stulz, & Williamson, 2013), product market competition (Fresard, 2010), and idiosyncratic risk (Campbell, Lettau, Malkiel, & Xu, 2001). However, little is known about the link between government economic policy uncertainty and corporate liquidity. Our research fills this gap in the literature by examining the effect of policy uncertainty on corporate cash holdings.

Policy uncertainty can affect corporate cash holdings in a number of ways. Since policy uncertainty decreases asset returns and increases the cost of external financing, which exacerbate firms' financial constraints (Brogaard & Detzel, 2015; Gilchrist et al., 2014 and Pástor & Veronesi, 2013), firms are motivated to increase cash reserves to buffer against financial shocks and maintain smooth operation. From the real option perspective, firms may choose to delay investment amid high uncertainty (Bernanke, 1983; Dixit & Pindyck, 1994; Gulen & Ion, 2016), which also leads to an increase in cash holdings. Since policy uncertainty tends to be temporary, increased cash holdings can provide flexibility that allows firms to exploit future profitable investment opportunities when uncertainty recedes. Policy uncertainty can also increase managerial conservatism (Panousi & Papanikolaou, 2012), inducing firms to hold more cash, which is the most liquid asset. For these reasons, we expect a positive relation between policy uncertainty and cash holdings.

We begin by examining the effect of government economic policy uncertainty on corporate cash holdings. Similar to recent studies related to policy uncertainty (Gilchrist et al., 2014; Gulen & Ion, 2016; Nguyen & Phan, 2017; Panousi & Papanikolaou, 2012; Pástor & Veronesi, 2013), we use the economic policy uncertainty index developed by Baker et al. (2016; hereinafter labeled BBD index) as the measure of government economic policy uncertainty. Using a sample that includes 119,322 firm-year observations of 13,981 unique firms over the period 1986–2015, we find that policy uncertainty is positively related to corporate cash holdings. Further analysis indicates that precautionary motives and, to a lesser extent, investment delays explain the positive relation between policy uncertainty and the level of cash. Our findings are not susceptible to possible alternative explanations such as managerial agency problems or external financing.

Since the BBD index and corporate cash holdings follow an increasing trend over the sample period, one may be concerned about a possible spurious relation between the two. Alternatively, policy uncertainty tends to be countercyclical whereas firms may hold more cash in the down state of the economy, which raises a possibility that our observed positive relation between policy uncertainty and corporate cash reserves is simply driven by business cyclicality. We perform two analyses to address these concerns. In the first analysis, we examine the relation between policy uncertainty and corporate cash holdings conditional on firms' dependence on government spending. We find that the positive relation between policy uncertainty and cash holdings is more pronounced for firms dependent on government spending, implying that government economic policy uncertainty affects corporate cash holdings rather than the two being spuriously related. In the second analysis, we sort firms into subgroups depending on whether they belong to pro-cyclical or countercyclical industries. Our results indicate that the positive relation between corporate cash holdings and policy uncertainty is significant for both subgroups of firms, suggesting that the relation extends beyond business cyclicality.

We run several additional tests to ensure the robustness of our findings. First, policy uncertainty and corporate cash holdings can be jointly correlated with unobservable variables, such as investment opportunities, which raises endogeneity concern. We use the IV regression model to address this endogeneity concern and find that our results are robust to endogeneity correction. Second, the BBD index may capture the effects of general economic uncertainty that potentially confound our finding, therefore, we control for several proxies for economic uncertainty including the annual standard deviation of firm profit growth, the uncertainty of equity markets, economic uncertainty measured by GDP forecast dispersion, and aggregate macroeconomic uncertainty measures suggested by Jurado, Ludvigson, and Ng (2015). Our finding is qualitatively unchanged. Third, the BBD index may pick up the effects of some other non-policy-related economic uncertainty, such as labor market variations, currency uncertainty or oil shocks, which tend to affect corporate cash reserves. Following Gulen and Ion (2016)'s suggestion that the U.S. and Canadian economies are closely linked and a shock that affects the economic uncertainty in the U.S. is likely to affect the economic uncertainty in Canada as well, we use the residuals of the regression of the BBD news-based index for the U.S. on the Canadian BBD news-based index and other macroeconomic variables as a proxy for policy uncertainty. We find that our results continue to hold. Fourth, some previous research reports that political uncertainty, which is typically associated with elections, can affect corporate policies. To alleviate a concern that policy uncertainty merely picks up the effects of political uncertainty, we control for political uncertainty in the cash holdings regressions but our results are qualitatively similar.

Our research contributes to a burgeoning stream of literature that studies the effects of policy uncertainty on corporate behavior and firm value and to a more established stream of literature on the determinants of corporate liquidity. We show that policy uncertainty relates significantly to corporate cash holdings, which is one of the most important corporate financial policies. We uncover the drivers, i.e., precautionary motives and, to a lesser extent, investment delays, of the positive relation between policy uncertainty and corporate cash holdings. Our findings provide timely implications for corporate managers, investors, and policy makers given the recent sharp increase in policy uncertainty and the acute interest in promoting business growth and job creation.

Our research is related to some recent studies on the relation between uncertainty and firm cash holdings. Gao, Grinstein, and Wang (2017) find a positive effect of systematic uncertainty, which is obtained from the regression of implied volatility of firms' traded stock options on the implied volatility of the S&P 500 index (VIX), on firm cash holdings through firms' future cash needs and costs of external financing channels. However, our research focuses particularly on the effects of government economic policy uncertainty, which is different from their systematic uncertainty in measurement, time frame, and implications (Baker et al., 2016; Nguyen & Phan, 2017). Another research related to ours is Demir and Ersan (2017), which examines the relation between policy uncertainty and corporate cash holdings in emerging (BRIC) economies over the period 2006–2015. Our research examines the relation between policy uncertainty and cash holdings of firms in a single country, the U.S., which is not susceptible to unobserved time-varying country social, economic, and political conditions that may correlate with policy uncertainty. Moreover, our sample period (from 1986 to 2015) spans several business cycles, thus, our results are unlikely to be confounded by the consequences of the recent Great Recession.

2. Empirical prediction

Policy uncertainty may increase firms' future cash flow volatility, thereby increasing the deadweight costs of financial distress. Previous research reports that policy uncertainty reduces asset returns and increases the cost of external financing, which exacerbate firms' financial constraints (Brogaard & Detzel, 2015; Gilchrist et al., 2014; Pástor & Veronesi, 2013). Facing possible external financing uncertainty and higher costs of capital amid high policy uncertainty, firms are more likely to increase their cash reserves to buffer against financial shocks and maintain smooth operation and investment. Moreover, firms are likely to delay investments amid high policy uncertainty (Gulen & Ion, 2016; Nguyen & Phan, 2017), which may also lead to larger cash