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Policy uncertainty, irreversibility, and cross-border flows of capital☆

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ABSTRACT

We examine the effects of political uncertainty on cross-border capital flows using election timing as a source of fluctuations in political uncertainty. FDI flows from US companies to foreign affiliates drop significantly during the period just before an election and increase after the uncertainty is resolved, consistent with the view that political uncertainty deters foreign investment. The electoral patterns in FDI flows are more pronounced when elections are more competitive. The impact of political uncertainty on FDI flows depends on the level of institutional quality. Countries with higher levels of institutional quality experience significantly less variation in FDI around election cycles.

1. Introduction

Cross-border flows of capital have grown rapidly in size and importance in recent decades.[1] Foreign investment is an important source of capital in emerging markets and represents a significant proportion of GDP in many countries around the world (Lane and Milesi-Ferretti, 2007). Numerous researchers have examined various drivers of bilateral capital flows, ranging from macroeconomic conditions and geographic proximity to institutional quality. In this paper we examine how political uncertainty affects variation in foreign direct investment (FDI). We also explore how political uncertainty interacts with institutional quality to influence the overall attractiveness of countries for foreign investment.

While all investments are exposed to political uncertainty, foreign investment is burdened with additional layers of rules and regulations associated with national boundaries such as capital controls and differential tax treatments. Furthermore, foreign investments are subject to expropriation risk. Courts in destination countries may have a bias towards domestic firms and investors in cases of disputes (Bhattacharya et al., 2007). Dixit (2011) highlights the fact that FDI is more sensitive to the political environment than domestic investment as the foreign investor has limited protection from the host country's legal and political institutions. Among the various types of cross-border capital flows, FDI is considered most sensitive to political uncertainty and institutions.

The recent global financial crisis and subsequent recession has spawned a fast growing literature investigating the effects of political uncertainty on economic activity. A current debate is focused on why growth in the wake of the financial crisis has been slow to recover. One of the explanations for the sluggish recovery offered by some commentators is that uncertainty about future government policy is

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[1] According to UNCTAD (2009a), foreign direct investment inflows worldwide grew by a factor of nearly 10 from $208 billion in 1990 to a historic high of $1979 billion in 2007. A Coordinated Portfolio Investment Survey conducted by the International Monetary Fund (IMF) reveals that foreign portfolio investment holdings worldwide grew more than six-fold between 1997 and 2007.

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abnormally high.[2] Cross-border investment also experienced a large contraction during the recent crisis and has been slow to recover.[3] However, it is not a simple task to empirically examine whether fluctuations in political uncertainty affect cross-border investment flows.

The literature has highlighted two empirical challenges to establishing a clear link between political uncertainty and real outcomes: first measuring political uncertainty and second identifying the causal effect of uncertainty on investment (Baker et al., forthcoming). To measure political uncertainty, we employ the approach of Durnev (2010), Gao and Qi (2013), Jens (forthcoming), Julio and Yook (2012), and Colak et al. (forthcoming), among others, and utilize the timing of elections as a measure of variation in political uncertainty. Specifically, we examine foreign direct investment flows around the timing of national elections in destination countries around the world. When opposing candidates in an election promote different policies, uncertainty about the election outcome implies uncertainty about what policies will be enacted after the election. Thus, the outcomes of national elections are relevant to foreign investment decisions as they have implications for foreign capital controls, trade policy, exchange rate policy, and taxation as well as other policies that are applicable to both domestic and foreign firms such as industry regulation and fiscal policy.

The second challenge in testing whether political uncertainty depresses international investment activity is the likely endogeneity between measures of political uncertainty and economic fundamentals. As Rodrik (1991) notes, it is very difficult to find strong empirical support for uncertainty-driven predictions because political instability and uncertainty are likely endogenous to other factors that affect private investment decisions. Estimating the direction of causality between economic outcomes and political uncertainty requires employing a variable or event that is correlated with political uncertainty but uncorrelated with the economic conditions that drive foreign investment. Election timing is admittedly a very broad measure of political uncertainty, capturing not only possible changes in government policy but also changes in the composition of government. The timing of an election in one country is out of the control of any individual firm in another country and indeed fixed in time by constitutional rules for a large number of countries in our sample. In addition, elections around the world take place at different points in time, allowing us to net out global time trends in foreign investment flows. Thus, elections around the world provide a quasi-natural experiment framework for studying the effects of political uncertainty on cross-border capital flows, allowing us to disentangle some of the endogeneity between economic conditions and political uncertainty. If political uncertainty is higher when changes in national leadership are more probable, elections provide some exogenous variation in political risk over time that helps isolate the impact of political uncertainty on foreign investment decisions from other confounding factors.

Using 183 national elections in 44 countries between January 1994 and June 2010, we examine changes in quarterly FDI flows as political uncertainty fluctuates by comparing the investment flows in the quarters leading up to the national election outcomes with those in non-election quarters. We find clear evidence that U.S. FDI flows are significantly lower in the quarter just prior to an election outcome in the host country. Our empirical results are consistent with the view that political uncertainty depresses flows of private investment. The baseline results suggest that the FDI flow rate falls by approximately 13% relative to non-election years, all else being equal. The magnitude of decline in the FDI rate is notable compared to an average reduction in domestic corporate investment around election cycles of 4.8% documented by Julio and Yook (2012) and 4.5% by Jens (forthcoming), suggesting that FDI is more sensitive to political uncertainty than is domestic investment. The effect of political uncertainty around the election is short-term, concentrated only in the quarter just before an election to one quarter after the election. When we estimate the regressions using annual data, we find that the longer-run effect of political uncertainty stemming from elections is muted. To address the concern that incumbents may opportunistically time elections to maximize their chance of re-election and thereby induce a correlation between election timing and economic activity, we repeat the tests with the subsample of countries for which elections are fixed in time by electoral law. The results are similar in the subsample of elections with exogenous timing. We also find that the election effects are stronger when the election race is more competitive, suggesting that a higher degree of uncertainty regarding election outcomes is associated with larger drops in FDI flows in election quarters.

We also examine how institutional quality impacts the political uncertainty/investment relationship. Daude and Stein (2007) argue that corruption may increase uncertainty, pointing to interactions between institutional quality and uncertainty. We find the investment cycles are much less pronounced in countries with relatively stable political systems, higher control of corruption and more checks and balances on executive authority. The quality of institutions is thus an important determinant of how political uncertainty works through capital flows. We also find that FDI cycles around election timing are more pronounced for countries with low GDP growth, low GDP per capita, and low openness to trade.

Our empirical predictions are drawn from established theoretical literature related to the effects of political uncertainty and institutions on investment. Bernanke (1983) provides one of the earlier treatments of the effects of uncertainty on investment in general, showing that high uncertainty creates an incentive for firms to delay investment when the investments are costly to undo. The investment timing decision is analogous to the exercise decision for a financial option, as heightened uncertainty increases the value of waiting to exercise. There is also a theoretical and empirical literature that focuses specifically on the effects of policy uncertainty. Stokey (2016) shows that firms adopt a wait-and-see policy when tax policy is uncertain but will be resolved in the near future. Firms hold back on irreversible investment until uncertainty is resolved and firms subsequently implement the delayed projects, creating a temporary boom in investment. Rodrik (1991) models private foreign investment choices in a setting with political uncertainty, where foreign investors hold back on investing until a large amount of uncertainty regarding the success of political reform is resolved. Rodrik demonstrates that under reasonable assumptions even a 10% probability of policy reversal requires an investment subsidy of 7.5 percentage points to offset its adverse effects on investment. Thus, political uncertainty acts like a tax on investment. The intuition is similar in general models of investment under uncertainty, including Bloom et al. (2007), that the value of waiting increases when uncertainty related to changes in government policy is high. Chen and Funke (2003) also model FDI decisions in the face of political uncertainty and generate similar predictions. In this context, political uncertainty has a negative effect on private investment when the investment is at least partially irreversible. Pindyck and Solimano (1993) is another example of this literature in which the uncertainty brought about by political factors leads to lower levels of investment. In our setting, elections generate variation in uncertainty not only about changes in policy that may be enacted after the election, but also increased

[2] For example, see comments by Ben Bernanke in the July 22, 2010 edition of the *Wall Street Journal*.

[3] Annual global foreign direct investment inflows fell 16% in 2008, and a further 37% to $1114 billion in 2009 before showing modest recovery in the first half of 2010 (UNCTAD, 2010). Bertaut and Pounder (2009) examine bilateral portfolio investment between the U.S. and the rest of the world and report a considerable pullback from cross-border positions during the financial crisis. As of mid-2009, the portfolio flows have yet to recover to the pre-crisis level.