ECONOMIC POLICY UNCERTAINTY AND CROSS-BORDER MERGERS AND ACQUISITIONS

Abstract

We examine the impact of economic policy uncertainty on cross-border mergers and acquisitions. Using a sample of 23 countries worldwide over the period from 2004 to 2017, we provide evidence that when a country has high economic policy uncertainty, the volume of inbound acquisition decreases whereas the total number of outbound deals increase significantly. Economic policy uncertainty also encourages acquirers to use stock as a method of payment and offer lower premium to targets. We also find that the percentage of full control cross-border M&A deals is negatively correlated to the level of economic policy uncertainty. Further evidence suggests that economic policy uncertainty complicates the takeover process by requiring longer time periods to complete deals.

JEL Classification: G32, G34.

Keywords: Cross-border mergers and acquisitions, Economic policy uncertainty.

1. Introduction

Cross-border mergers and acquisitions have increased rapidly over the last two decades, with the aggregate dollar volume rising from 21% of total acquisition activities worldwide to 37% in the period between 1996 and 2014 (Cao, Li, and Liu, 2017). As a result of this increase in importance, it is vital for researchers to understand about factors which affect the incentive of firms to engage in international M&As. For instance, Rossi and Volpin (2004) focus on the effect of the difference in law and regulation between the acquirer and target country on the acquisition activity. Meanwhile, Erel, Liao, and Weisback (2012) examine other determinants such as geography, accounting quality, and country-pair trades. It is generally perceived that cross-border M&As are riskier and have a higher level of asymmetric information, compared to domestic deals. This suggests that macro factors in both bidder and target countries have a significant impact on the likelihood and performance of these activities. The uncertainty of economic policy is one of them. Policy changes may alter the operating environment of firms, which can affect their profitability and investment. Despite the adverse consequence of economic policy uncertainty on the overall economy and corporate finance, the relationship between economic policy uncertainty and cross-border M&As have not received much attention from researchers and economists. Hence, in this paper we aim to investigate how economic policy uncertainty can relate to the volume and deal characteristics of cross-border acquisition activities. We first examine the correlation between economic policy uncertainty and the total number of international acquisition deals in both the target and the acquirer countries. We also study whether policy uncertainty affects the M&A process such as the mean of payment, the premium offer, the propensity of full control deal, and the time to complete deals.

Prior research has shown the link between corporate investment and policy uncertainty. For example, Bloom, Bond, and Van Reenen (2007) suggest that firms become more cautious

with respect to the investment decision when facing uncertainty. Yulio and Yook (2012) use national elections as a proxy for political uncertainty and provide empirical evidence that investment expenditure in election years is reduced by 4.8% compared with the average investment rate in years without elections. Other supporting results can be seen in Pastor and Veronesi (2011), Gilchrist, Sim, and Zakrajsek (2014) and Gulen and Ion (2016). Mergers and acquisitions decisions are some of the most important and costly in corporate finance. Hence, in the stream of research focusing on the effect of policy uncertainty and corporate investment there are some prominent studies examining the relationship between policy uncertainty and M&As. For instance, Bonaime, Gulen, and Ion (2018) study the correlation between policy uncertainty and M&A activities using U.S data. They indicate that policy uncertainty is negatively related to the acquisitiveness of firms. The impact of policy uncertainty on acquisition activities is a long-lived effect as they do not find evidence that delayed deals during a high policy uncertainty period can become completed at a later time. Nevertheless, there is scarce literature on the impact of political and regulatory uncertainty on cross-border M&As. One exception is the study of Cao, Li, and Liu (2017). They focus on political uncertainty by using national elections as a proxy to investigate the relationship between policy uncertainty and international acquisitions. This lack of evidence is surprising as the political and regulatory situation is one of the most important factors which acquirers will consider when choosing their destinations. Our paper attempts to bridge this gap by investigating the relationship between economic policy uncertainty and cross-border M&As using a more comprehensive proxy for policy uncertainty.

We use the economic policy uncertainty index (henceforth, EPU) developed by Baker, Bloom, and Davis (2016) (BBD index) to measure the level of policy uncertainty in bidder and target countries. The original BBD index of each country is proposed as a weighted average of three components including the frequency of articles containing some key words related to

policy uncertainty in top major newspapers, uncertainty in tax code change, and the disagreement in monetary policy and fiscal policy forecasts. However, for comparison purpose, we only focus on uncertainty index based on news coverage. This index appeals compared to other proxies of policy uncertainty such as monetary, fiscal, and regulatory uncertainty because it can be measured for long time periods. Moreover, it also captures policy uncertainty in non-election years, which is a very important measure of policy uncertainty. Following Cao, Li, and Liu (2017), national elections are usually held once every four years. As a result, only the uncertainty level of the year of the election can be determined using a national election as a proxy for policy uncertainty. Hence, we expect that the EPU index is more comprehensive in reflecting a nation's policy uncertainty.

In this study, we aim to examine i) the relationship between a country's EPU and cross-border M&A activities (inflow and outflow) and ii) the impact of EPU on different M&A deal characteristics, such as stock payment, premium offer, full control, completion time, and shareholder value. We use a sample of 23 countries worldwide over a 14-year time period from 2004 to 2017. The reason for this time period in our sample is because of the availability of the EPU data. The M&A data of these countries are collected from Thomson One. Our final sample consists of 4,663 cross-border acquisition deals. Following Rossi and Volpin (2004), and Erel, Liao, and Weisback (2012), a set of controls including country, firm and deal level variables which may affect foreign mergers are included in the model to avoid issues of misspecification. We also we include year fixed effects to account for cross-sectional dependence in all regression models.

We begin our analysis by studying the effect of policy uncertainty on the volume of cross-border M&As. In particular, using country-level analysis, we investigate whether the economic policy uncertainty facing targets is related to the intensity of inbound international deals and if there is an association between policy uncertainty facing acquirer policy uncertainty and its

outbound M&A flow. We find that a one standard deviation increase in policy uncertainty in the target country leads to a 6.56% decrease in the probability of receiving an acquisition offer. Meanwhile, policy uncertainty in the home country encourages acquirers to invest in acquisition deals overseas, with an increase of 6.09%. These findings remain intact after controlling for the economic condition and legal and regulatory environment of target and acquirer countries. Our results are robust: i) to the exclusion of observations in the U.S and UK which account for a large number of cross-border deals; ii) to the use of alternative regressions in estimating the effect of economic policy uncertainty in international acquisitions; iii) to alternative measures of policy uncertainty.[1]

We provide further evidence about the relationship between economic policy uncertainty and cross-border M&A flow by analyzing data at a country-pair level. We assemble data of all cross-border transactions into specific pairs of acquirer and target country. We show evidence that the greater economic policy uncertainty in target country leads to a decrease in the number of bilateral acquisition deals. This result is hold after excluding US and UK deals out of the sample and using difference models for regression as well as alternative proxies to measure EPU.

In order to enrich our discovery that policy uncertainty affects cross-border M&As, we further test the effect of EPU on the method of payment and premium offer. Our results imply that stock deals are more likely to happen when policy uncertainty in the target's country is high. Stock is also a preferred mode of payment when the uncertainty in the acquirer country is lower than the target country. Moreover, we also provide evidence that there is a negative association between policy uncertainty and the premium offer. Finally, we conduct additional tests based on withdrawn deals. If policy uncertainty reduces the intensity of international

[1] Details of robustness are reported in section 4.

acquisitions, then this could be reflected in the probability of full control and the time to completion. We find that there is a negative correlation between EPU and the full control propensity. In addition, the policy uncertainty complicates the cross-border process by increasing the duration of deal completions.

Our study contributes to the previous literature in the following ways. First, we enhance the literature on the determinants of cross-border M&As. Together with other factors such as law, regulatory, geography, trade between two countries and institutional investors, economic policy uncertainty also has a significant impact on the international acquisition decisions of firms[2]. Second, we contribute to the literature on the impact of economic policy uncertainty on corporate investments. Previous studies have provided evidence on the relation between policy uncertainty and capital expenditure (Julio and Yook, 2012; Gulen and Ion, 2016), capital structure (Desai, Foley, and Forbes, 2008), domestic M&As (Nguyen and Phan, 2017) and corporate lending (Zhai, 2018). Unlike prior research, our study focuses on the cross-border M&As, which is one of the most important corporate investments and is expanding significantly worldwide. To the best of our knowledge, we are the first paper investigating this relation using EPU as a proxy of policy uncertainty. Finally, our paper provides empirical evidence regarding how economic policy uncertainty affects not only the volume of cross-border M&As, but also the deal characteristics. In particular, we find that policy uncertainty complicates the overseas acquisition process by affecting the method of payment, premium offer, and time to deal completion.

Our paper has some similarities to Nguyen and Phan (2017), who find that policy uncertainty is negatively related to the acquisition likelihood in the U.S using the BBD index to measure policy uncertainty. They also examine the association between policy uncertainty,

[2] Some papers that study determinants of cross-border M&As are Rossi and Volpin (2004), Erel, Liao, and Weisback (2012), Ferreira, Massa, and Matos (2010).

method of payment and bid premiums of domestic M&As. However, our empirical framework is more comprehensive because we concentrate upon the cross-border M&A using a sample of 23 countries. There are specific reasons why we focus on international deals. First, it is argued that outbound cross-border M&As involve a target abroad, which is less subject to domestic political uncertainty and can even shield the firm from domestic political uncertainty (Cao et al., 2017). Second, due to the inherit difference between domestic and cross-border deals, it is important to examine whether the level of uncertainty in an economy is important for incidence and outcome of an international acquisition. Finally, the sample of cross-border acquisition allows us to investigate both time-series and cross-sectional effects of policy uncertainty on M&A activities.

We further examine how economic policy uncertainty correlates to the percentage of full control and time of completion cross-border deals. Our study also has a certain resemblance to Cao, Li, and Liu (2017), who estimate the relationship between policy uncertainty and international acquisitions. However, they use national elections as the proxy for policy uncertainty. This specific political event can be regarded as an exogenous indicator of uncertainty, however it does not provide a continuous measure or variation of economic policy uncertainty. Brogaard and Detzel (2015) state that the passing of an election does not necessarily indicate the complete resolution of uncertainty surrounding the government policy. This leads to a limitation of Cao et al. (2017), given that they only report the correlation between political process and cross-border M&As in the year before national election. Using EPU index allows us to examine the policy uncertainty of a nation over a long period of time including non-election years. In addition, this index measures not only political uncertainty but also the overall level of policy uncertainty in economy. Thus, we believe that EPU is a more comprehensive measure in reflecting aggregate uncertainty of a nation.

The remainder of our paper is organized in the following way. Section 2 presents a brief review of the literature and hypotheses development. Section 3 reports the data collection and summary statistics. The methodology and the main findings of the paper are discussed in Section 4. Finally, section 5 concludes.

2. Related Literature and Hypothesis Development

2.1. Related Literature

Our paper is related to two broad strands of literature. The first examines the factors driving cross-border M&A activity, The second links uncertainty to firm behaviour.

A considerable body of literature exists on the country-specific determinants of cross-border M&As. For instance, previous studies have shown that macroeconomic and financial market environments, proxied by GDP, Per capita GDP, stock market capitalization, bilateral trade openness, exchange rate, and inflation rate, have a strong impact on M&A activity (Rossi and Volpin, 2004; Hyun and Kim, 2010; Uddin and Boateng, 2011; and Erel, Liao, and Weisbach, 2012). Others document that the cross-border M&A likelihood is related to the host country's institutional and regulatory systems, such as accounting standards and investor protection (Rossi and Volpin, 2004), creditor rights (Renneboog, Szilagyi, and Vansteenkiste, 2017), and employment protection (Dessaint, Golubov, and Volpin, 2017). Some researchers also provide evidence about the link between M&A transactions and geographical and cultural differences between countries (Morosini, Shane, and Singh, 1998; Ahern, Daminelli, and Fracassi, 2015), political environment and corruption (De Villa, Rajwani, and Lawton, 2015; Di Guardo, Marrocu, Paci, 2016), taxation (Huizinga and Voget, 2009), and foreign institutional ownership (Ferreira, Massa, and Matos, 2010). Bhagwat, Dam, and Harford (2016) conclude that there are many different factors that can affect M&A activity, but macroeconomic conditions are the dominant determinants.

While a well-established literature documents the role of economic and regulatory conditions in M&As, the effect of uncertainty, specifically related to government policy, on M&A activity is not yet fully understood. Recently, several authors have examined the link between uncertainty and M&A activity. For example, using the past volatility of operating income and the cost of goods sold to proxy for the cash flows uncertainty, Garfinkel and Hankins (2011) suggest that the higher uncertainty of future cash flow increases the likelihood that a firm vertically integrates. Bhagwat, Dam, and Harford (2016) state that an increase in market-wide implied volatility will reduce M&A activity. Cao, Li, and Liu (2017) also provide evidence about a negative link between political uncertainty and M&A activities. They use election years to proxy for political uncertainty and find that an upcoming national election encourages (deters) firms to associate in outbound (inbound) cross-border M&As. However, our approach differs from these studies in that we focus on a particular source of macroeconomic uncertainty related to taxes, government spending, and monetary and regulatory policy.[3] Our paper is closer in spirit to Nguyen and Phan (2017) and Bonaime, Gulen, and Ion (2018), who document that policy uncertainty is negatively related to domestic M&A activity in the United States (US). Our paper aims to examine the effects of policy uncertainty on cross-border M&As. Unlike domestic investment, cross-border M&A are exposed to policy uncertainty in both home and host countries. This provides us an interesting setting to study the effect of policy uncertainty on the flow of M&A transactions. In addition, cross-border deals suffer more serious information asymmetry issues and higher transaction costs due to the geographical distance and differences in the international setting and border

[3]For more details, Pastor and Veronesi (2012) make a distinction between two types of uncertainty, policy and political uncertainty. While policy uncertainty relates to the uncertain impact of a given government policy on the profitability of the private sector. Political uncertainty is defined as uncertainty about the government's future actions.

laws. Thus, it is expected that the policy uncertainty plays a more important role in the cross-border M&A context.

2.2. Hypothesis Development

a. EPU and cross-border M&A flows.

Given the important role of uncertainty shocks in explaining firm behaviour, two theories have been put forward in the finance literature on the nature of the relationship between uncertainty and investment activity. First, the *delaying hypothesis* predicts that an increase in uncertainty induces firms to become cautious and hold back on investment. Specifically, Bernanke (1983) and Bloom, Bond, and Van Reenen (2007) have modeled the relationship between uncertainty and real investment. They argue that investment projects are costly, or impossible, to reverse. This provides firms with an incentive to postpone commitment and wait in order to avoid costly mistakes. The value of the option to wait thus increases in highly uncertain environments and firms rationally delay investment until some of the uncertainty is resolved. This conclusion is supported by empirical evidence. Alesina and Perotti (1996) find that political instability is correlated with cross-country variations in investment rates. Julio and Yook (2012) show a strong negative relationship between investment expenditures and the aggregate level of uncertainty around national elections. On the other hand, Gulen and Ion (2015) provide evidence that firms delay capital investment in the face of uncertainty associated with changes in the country's monetary, fiscal, or macroeconomic policies.

In the context of cross-border M&A activity, the *delaying hypothesis* suggests that potential acquirers tend to delay investment decisions when the target country has been experiencing a rise in policy uncertainty. In addition, Beazer and Blake (2018) show that in international investment activity, firms compare uncertainty across possible investment locations and choose the less risky option. Building upon existing literature, we thus propose

that economic policy uncertainty should be negatively associated with cross-border M&A inflows.

Hypothesis 1: *A higher domestic EPU index is associated with decreased cross-border M&A inflow.*

Second, the *hedging hypothesis* postulates that firms may use cross-border M&A activity as a means of global diversification to reduce the risk arising from policy uncertainty. Previous authors (Berger, 2000; Denis, Denis, and Yost, 2002) emphasize that global diversification increases operating flexibility within the firm to respond to political risk, currency risk, market risks, and other institutional differences. Geographic diversification might also enhance shareholder value by exploiting firm-specific assets and by satisfying investors' wealth diversification preferences (Brewer, 1981 and Fatemi, 1984). Therefore, once a firm has set up foreign operations, it can diversify sources of income and reduce the impact of risks in the home country. In relation, Brogaard and Detzel (2015) note that government taxation, expenditure, monetary, and regulatory economic policies can have market-wide economic effects, which are difficult to control by industry diversification strategy or product development. Hence, the global diversification strategy becomes necessary when firms are exposed to higher policy uncertainty. There is empirical evidence of investment activity across national borders to escape political uncertainty and instability in the home country. For example, Tallman (1988) and Le and Zak (2006) find that home country political risk factors encourage firms to conduct foreign direct investment. Cao, Li, and Liu (2017) show that firms pursue cross-border M&A deals in the face of higher uncertainty. They also confirm that when firms engage in cross-border M&A activity, they choose target countries with lower levels of uncertainty to offset their domestic uncertainty.

Hypothesis 2: *A higher domestic EPU index is associated with increased cross-border M&A outflow*

b. EPU, method of payment, and premium offer.

Empirical studies have shown that cross-border M&As may be involved in greater information asymmetry compared to domestic M&As. This is caused by the inequality in shareholder protection, regulatory, and geographical distance between the acquirer and the target (Rossi and Volpin, 2004; Erel, Liao, and Weisback, 2012). Following Erel, Liao, and Weisback (2012) and Huang, Officer, and Powell (2016), these country-level factors have effects on the method of payment of acquisition deals. For instance, Huang, Officer, and Powell (2016) suggest that the acquirer can have less country-level governance risk when paying for the target by stock. Moreover, during the period of policy uncertainty, target firms may be more vulnerable to default risk and financial constraints. The future cash also becomes more volatile under policy uncertainty (Nguyen and Phan, 2017). Hence, acquirers may possess less incentive to exchange high liquid (cash) to fewer liquid assets (assets of target firms). In other words, we predict that stock is the main method payment of the acquirer in overseas mergers when the target country undergoes high economic policy uncertainty.

Hypothesis 3: *A higher EPU index is associated with the likelihood of stock payment in cross-border M&A deals*

We next predict the impact of policy uncertainty on the premium offer of cross-border acquisitions, which is measured as the percentage difference between the offer price and the target's stock price four weeks before the announcement date. As discussed above, policy uncertainty can lead to financial constraints and difficulty in raising external funds, when acquirers are more cautious on offering their bid price. Furthermore, due to the adverse effects of high EPU, target firms have less advantages on price negotiation with acquirers. As a

consequence, they are willing to accept the lower price. Supporting this point of view Nguyen and Phan (2017) provide evidence that policy uncertainty is negatively correlated to the premium offer in domestic M&As. Therefore, our third hypothesis predicts that the premium offer of cross-border M&As will decline due to the impact of the target country's policy uncertainty.

Hypothesis 4: *A higher EPU index is associated with the lower premium offer in cross-border M&A deals*

c. EPU, full control, and completion time.

Our next hypothesis regards the relationship between EPU and other deal characteristics of international acquisitions including the propensity of full control deal and time to complete the deal. As discussed above, due to the adverse effects of economic policy uncertainty, the intensity and premium offer of cross-border acquisitions may decline. In addition, acquirers also tend to use stock as mean of payment in overseas acquisition deals. Huang, Officer, and Powell (2016) show evidence that stock payment causes a lower percentage of deal completion. Hence, we predict that uncertainty will complicate the takeover process and it will have a negative impact on deal performance. We hypothesize that during a high policy uncertainty period, international acquisitions may need more time to complete and the percentage of full control deal may be decreased.

Hypothesis 5: *A higher EPU index is associated with the lower likelihood of full control and the longer time of deal completion in cross-border M&A deals*

d. EPU and the announcement returns

Finally, we consider the relationship between EPU and the announcement returns in M&A deals. We argue that host country's economic policy uncertainty potentially affects the target firm's bargaining power and influences the outcome of M&A deals. Specifically, empirical

evidence has shown that the high risk and more principal–agent costs associated with uncertainty shocks hamper investment activity and growth (Julio and Yook, 2012; Gulen and Ion, 2015). This effect makes firms with high policy uncertainty less attractive to potential acquirers. Moreover, under economic policy uncertainty, the valuation of M&A deal becomes more complicated. Graham and Harvey (2001) show that the M&A valuation mainly depends on the discounted value of the future cash flows from the performance of the acquired firm. However, the cash flow is difficult to predict in an unstable tax and regulatory environment (Lee, 2018). Thus, firms are more likely to overpay in an M&A deal, leading to the tendency to not favor countries with high policy uncertainty. These reasons consequently make target countries with high policy uncertainty less attractive and weaken their bargaining power. Therefore, foreign acquirers can capture a larger fraction of the total acquisition gains, relative to local targets, when the host country is faced with high policy uncertainty.

Hypothesis 6: *A higher EPU index in target's home country is associated with the lower shareholder value of acquirers in cross-border M&A deals*

3. Data and Summary Statistics

3.1. Economic Policy Uncertainty data

We use the index developed by Baker, Bloom and Davis (2016) as a proxy for economic policy uncertainty. The overall original index is computed as the weighted average of three main components including newspaper coverage frequency, scheduled tax code expirations and forecaster disagreement about consumer price index and government purchases. However, the overall economic policy uncertainty index depends on different components, and for each country the start year for measurement is not the same; in this paper, we follow Zhai (2018) and Biswas and Zhai (2021) to focus on uncertainty index based on news coverage only. This method allows us to compare the economic policy uncertainty between different countries.

The news-based index captures the intensity of concerns about economic and policy uncertainty by counting the articles containing pre-selected country-specific keywords in major newspapers of a country. More specifically, an article will be counted if it contains terms related to three topics: Uncertainty, the economy, and policy. As the number of articles archived in each newspaper is different and varies across time, the monthly amount of articles related to policy uncertainty are adjusted by the total monthly amount of articles in the respective newspaper. The BBD policy uncertainty index is now available for 23 countries including the US and all G10 countries. Since the index is available at monthly frequency, we calculated average over 12 months to get annual values. We then take the natural log of annual values of the final economic policy uncertainty index. For brevity, we refer to logged index as EPU throughout the rest of the paper.

3.2. Merger and acquisition data

Our sample of M&A deals is obtained from the Thomson Financial SDC Merger and Acquisitions Database (SDC) over the time period of 2004-2017.[4] Information on acquisition deal characteristics are collected such as the transaction and announcement date. We mainly focus on target nations in the following 23 countries: Australia, Brazil, Canada, Chile, China, Colombia, France, Germany, Greece, Hong Kong, India, Ireland, Italy, Japan, Mexico, Netherlands, Russia Federation, Singapore, South Korea, Spain, Sweden, the United Kingdom, and the United States. These countries are chosen due to the availability of the national policy uncertainty index. Our wide and diverse dataset enables us to study the relationship between policy uncertainty and M&A activity worldwide. Following Erel, Liao, and Weisbach (2012), Golubov, Petmezas, and Travlos (2012), and Cao, Li and Liu (2017), we apply the following restrictions to our sample:

[4] We focus on this time period as the data for the EPU index is only available from 2003.

- Deal is announced between January 1, 2004 and December 31, 2017.
- Targeting and acquiring nations belong to the above 23 countries with the different ultimate parent CUSIP.
- Transaction types such as LBOs, spin-offs, recapitalizations, self-tender offers, exchange offers, share repurchases and buyback transactions from the inbound CBA deals obtained from SDC are excluded.
- Only include deals where the acquirer stake is less than 10% pre-acquisition and greater than 50% post-acquisition.
- Retain deals with a minimum value of 1 million dollars (in millions of 2010 nominal US dollars).

These data filters yield a sample of 118,372 M&A deals with a total transaction value of $30.36 trillion. The cross-border deals account for 18.7% of the database with 22,112 deals and a total value of $7.46 billion.

[INSERT TABLE 1 HERE]

Table 1 presents details of the total number and value of the aggregate M&A activities as well as the cross-border M&A deals for each country over the 2004-2017 period. We evaluate the deals from the perspective of both the target and acquirer nations. In terms of the acquirer country, the US experiences the largest number of M&A deals (36,044) with a value of $14,754,305, followed by China with 17,170 deals, the UK with 12,278 deals and Canada with 10,339 deals. Meanwhile, the lowest deal number nations are Colombia and Greece with the figures being 167 and 200, respectively. A similar trend is seen in these countries when considering their cross-border investments. For instance, the US, Canada, and the UK are the most active countries with the number of overseas deals being 5,076, 3,248 and 3,080 respectively. Regarding the takeover activity from the target perspective, the US is the most attractive nation with 36,353 total deals ($15,022,048 in value) and 5,385 cross-border deals

(value of $2,168,999) over the 14-year period. Other popular destinations are China, UK, Canada, and Australia. The interesting observation is that even though China receives considerably more M&A transactions than the UK, a vast proportion of them are not cross-border deals.

Table 2 reports summary statistics of main variables including country, firm, and deal characteristics in the paper. The sample consists of 322 country-year observations of 23 countries over 14 years from 2004 to 2017. The main explanatory variable-EPU has a mean value of 4.710 with a standard deviation of 0.426. Similarly, other country variables such as GDP Growth, Stock Market Cap also demonstrate considerable variation around sample mean values. In terms of firm characteristics, we control for some variable including Firm Size, Cash Holding, Leverage, and Market-to-Book. For instant, the firm size has a standard deviation of 4.494, minimum value of 2.097 and the maximum value of 12.766.

[INSERT TABLE 2 HERE]

3.3. Control variables

In order to examine the effects of economic policy uncertainty on cross-border acquisitions, we employ a large set of control variables at both the country and deal level in our model. In line with the previous academic literature, the control variables are correlated with cross-border M&A activity. At the country level, we include the gross domestic product (GDP) annual growth rate and the log of gross domestic product per capita as proxies for the change in macroeconomic conditions and the level of economic development for each country, respectively. We use the percentage of total imports and exports value to GDP to measure the openness of a country[5]. Erel, Liao, and Weisbach (2012) suggest that the difference in firm's valuation may affect the success of cross-border M&As. Given this finding we include the

[5] The data for the value of country imports and exports are obtained from the World Bank.

exchange rate variable (relative to US dollars) to capture the effect of valuation on cross-border M&A activity. As stock market plays an important role in the economy, we control for specific aspects of financial development in the target country by adding stock market cap variable which is defined as the ratio of market capitalization over GDP.

The shareholder rights are greater for countries using English common law as corporate law (La Porta et al., 1998), hence we add to our model a common-law dummy variable, which is equal to one for common law countries, and zero otherwise. Rossi and Volpin (2004) have indicated that target nations usually have lower investor production compared to the bidders. Thus, by using this dummy variable, we not only capture the inward degree of minority shareholder protection of a country but also control for the legal protections of investors for the target country. Finally, following Rossi and Volpin (2004) and Erel, Liao, and Weisbach (2012), we also incorporate four dummy variables, including same region, same language, same religion, and same border to control for the geographic proximity and cultural similarities between countries. The data for the region and language (English, or others), and religion (Muslim, Buddhist, Catholic or others) are collected from Stulz and Williamson (2003)[6].

In addition, three variables including business environment, government effectiveness, and quality of institutions from the International Country Risk Guide (ICRG) datasets are included in our model to control for the legal and business environment of the bidder and target countries[7]. First, we use the investment profile index from the ICRG to control for the business environment of each individual country, as suggested by Erel, Liao, and Weisbach (2012). We employ the ICRG Political Risk subcomponent of the bureaucratic quality index to measure government effectiveness in order to solely examine how the strength of bureaucracy may

6 A complete set of variable definitions and data sources are reported in Appendix A.
7 ICRG is a source of country risk analysis, rating and forecasting. It provides a global clientele with political, economic, and financial risk rating for 140 countries.

affect cross-border acquisitions. Finally, according to Bekaert, Harvey, and Lundblad (2011), we measure the quality of institution variable by merging three categories of ICRG's composite political risk including corruption, law and order, and bureaucratic quality. This variable is used in other studies such as Erel, Liao, and Weisbach (2012), and Cao, Li and Liu (2017).

At the deal level, we use a set of financial variables, including firm size, cash holding, leverage, market to book ratio (MTBV), diversifying, tender, and complete to control for deal and firm characteristics. These controls collected from the DataStream database are consistent with the studies of Officer (2003), Nguyen and Phan (2017), and Bonaime, Gulen and Ion (2018).

4. Methodology and empirical results

4.1. EPU and cross-border acquisitions: Country level analysis

a. Empirical results

In order to examine the impact of economic policy uncertainty and cross-border M&As, we first analyze whether the cross-border acquisition volume of the target country (inbound acquisitions) and acquirer country (outbound acquisitions) are altered due to the changes of economic policy uncertainty. Following Ferreira, Massa, and Matos (2009) and Cao, Li, and Liu (2017), we use a panel regression analysis to test the relationship between changes in the target country policy uncertainty and the intensity of its inbound M&As and the changes in acquirer policy uncertainty and its outbound cross-border acquisitions. The regression equation that we estimate is:

$$Ln(1+CBA)_{i,t} = \beta_0 + \beta_1 * EPU_{i,t-1} + \beta_2 * X_{t-1} + \varepsilon_{tgt,acq,t} \qquad (1)$$

Where i indexes countries, t indexes years. The dependent variable is the natural logarithm of 1 plus the total number of cross-border deals of country i in year t.[8] The main explanatory variable is economic policy uncertainty (EPU), which is measured following BBD (2016). *X* is the vector of control variables. Following Erel, Liao, and Weisbach (2012), Karolyi and Taboada (2015), and Cao, Li, and Liu (2017) we add a set of control variables which may drive cross-border acquisition activities including *GDP per capita*, *GDP Growth*, *Trade Openness*, *Exchange Rate*, *Stock Market Cap*, *Common Law*, *Business Environment*, *Government Effectiveness*, and *Quality of Institutions*. All independent variables are lagged by one year to eliminate unwanted biases in the data and auto-correlational effects which could weaken the results. The year fixed effects are also included in the regression to remove the effects of macroeconomic conditions such as oil price uncertainty or financial crisis. Finally, the regression is run for 322 country-year observations and the results are reported in Table 3.

[INSERT TABLE 3 HERE]

Table 3 presents the results of 6 different specifications of equation (1). The first three columns present the results on target country's EPU and inbound cross-border M&A. Column (1) analyzes the M&A flow with the EPU index as the only explanatory variable, column (2) and (3) analyzes the M&A flow by including different sets of control variables. Similarly, columns (4) - (6) show the results on the effects of acquirer's economic policy uncertainty on its outbound cross-border M&A flow. Specifically, column (1) shows a negative correlation between the policy uncertainty of target country and its inbound cross-border acquisitions. The coefficient of the EPU index is negative with a value of 0.154 and is significant at the 5% level (t statistic of -2.33). Economically, a one standard deviation increase in EPU (0.426) is associated with a decrease in the inbound cross-border M&A of 6.56% (0.426*0.154). We

8 This method is widely used in prior studies such as Di Giovanni (2005), Huizinga and Voget (2009), Ahern et al. (2015), and Alimov (2015).

further test this correlation by including some control variables, including GDP per Capita, GDP Growth, and Trade Openness in column (2). The coefficient of policy uncertainty falls slightly to 0.151 but remains negative and statistically significant. The main result is similar when we run the same regression but including all set of control variables in column (3). Countries with common law, high GDP growth rate, exchange rate and better quality of institutions receive greater volume in cross-border acquisition deals from overseas. These findings are in line with previous research such as Rossi and Volpin (2004) and Cao, Li, and Liu (2017).

In terms of the impact of EPU on outbound M&A flow of acquirer countries, there is an opposite trend in column (3) to (5) compared to the first three columns. The outbound cross-border acquisition is positively correlated to the level of policy uncertainty in acquirer countries. In particular, the volume of outbound M&As increases from 6.09%, 6.30%, and 6.48%, respectively when the policy uncertainty index increases by a one standard deviation All coefficients are positive and statistically significant at the 1% level. Other control variables such as GDP per Capita and Common Law in acquirer countries also exhibit a positive relationship with the intensity of their outbound cross-border M&As. Overall, the results on impacts of policy uncertainty and cross-border acquisitions are consistent with our expectation that nations with high levels of EPU tend to attract less inbound foreign acquisitions and engage more in outbound deals.

b. Robustness of the results

In order to strengthen the robustness of the empirical results, we further report the results of several alternative specifications in Table 4. Panel A reports the results on target-country inbound acquisitions and the estimation results on acquirer-country outbound deals are presented in Panel B. The regression model is similar to equation (1), in which the dependent

variable in the specifications (1), (4), (5), (6), (7), and (8) is the natural log of one plus the total number of cross-border M&A deals in the target (acquirer) country, respectively. Meanwhile, the dependent variable in the specification (2) is the cross-border ratio as the total number of cross-border M&A deals in the target (acquirer) country scaled by the total number of M&A deals in the target (acquirer) country, respectively. The dependent variable in the specification (3) is the natural log of one plus the total value of cross-border M&A deals in the target (acquirer) country, respectively.

We begin by omitting the US and UK observations out of sample as they account for the largest numbers of cross-border acquisitions, which could drive the results. Column (1) presents the results excluding all the US and UK observations in the target and acquirer country. There is no impact of the exclusion of the US and the UK on the main results, as the coefficient of policy uncertainty is still negative and statistically significant for inbound cross-border M&A and positive and statistically significant for outbound deals.

Following Rossi and Volpin (2004), Erel, Liao, and Weisbach (2012), and Alimov and Officer (2017), we use cross-border ratio as an alternative measure of cross-border acquisition intensity in specification (2). As the cross-border ratio is between 0 and 1, we implement the Tobit model to estimate model (1). The results show a strong negative and significant association between policy uncertainty and cross-border ratio in the target country, whereas acquirer country with high policy uncertainty has a greater flow of outbound cross-border acquisitions. We continue to re-estimate model (1), using the value of cross-border M&A deal as the dependent variable instead of the number of deals. The results are consistent with the main findings. Additionally, in Column 4 of Table 4, we conduct the econometric robustness tests by using seemingly unrelated regression (SUR) standard errors to adjust for heteroscedasticity, autocorrelation, and cross-sectional correlation (Bekaert, Harvey, and Lundblad 2005). The results are consistent with the findings reported so far.

We also run the regression model using alternative methods to proxy for policy uncertainty in column (5) through (8) of Table 4. In particular, in column (5), we use the EPU median as the main independent variable because it is possible that EPU is correlated across countries. The results of column (5) in both Panel A and B are similar with the previous outcome concerning the correlation between policy uncertainty, inbound and outbound cross-border M&As.

Although we include country fixed effects in the model to minimize the impact, we further examine the effect of the ratio EPU/Global EPU on cross-border M&A flow of target and acquirer countries in column (6). In Panel A, the coefficient of column (6) is negative and strongly significant at the 5% level. This result indicates that the target country tends to receive less takeover deals when facing high domestic policy uncertainty. In addition, the positive coefficient of EPU/Global EPU in Panel B suggests that countries with high EPU tend to invest overseas via M&A investments. We further test the main results using dummy variable high EPU as the main independent variable. If country's policy uncertainty index is greater than EPU median then it is considered as "High EPU" and receives the value of 1, otherwise the value is 0. The results in column (7) show similar trends with the main findings reported thus far but are only significant at the 10% level. Finally, we replace the EPU index by another proxy of uncertainty as the stock price volatility index, which is measured as the 360-day standard deviation of the return on the national stock market index. The results are reported in column (8) and are consistent with our results reported in Table 3.

Overall, Table 4 indicates that policy uncertainty has a substantial impact on the cross-border acquisition flow. Countries with greater policy uncertainty receive less inbound cross-border M&As. They tend to be involved in more international acquisition deals.

[INSERT TABLE 4 HERE]

c. Additional tests: 2SLS, difference, and DCCE

We run some additional tests in this section to examine the relationship between EPU and cross-border acquisitions. We firstly use a two-stage least squares (2SLS) estimation. The instrumental variables method allows us to address omitted variables and reverse causality issues simultaneously. This estimation requires at least one instrumental variable that is correlated with EPU but is uncorrelated with cross-border M&As activity. To this end, we use the political risk index provided by the International Country Risk Guide (ICRG) as the instrumental variable for EPU. According to ICRG, the political risk index covers both political and social attributes that assess the political stability of the countries. Along these lines, Baker et al. (2015) suggests that political uncertainty have become very important drivers of economic policy uncertainty. Hence, we expect that the political risk should be positively associated with EPU.

The results of 2SLS estimation are reported in column (1), (2), and (5) of Table 5. The first-stage regression provides evidence on the quality of the instrument. As expected, we find that EPU exhibits a significant relation with the instrumental variable with the coefficient of the latter carrying the right sign. In particular, the coefficient of the Political Risk Index is positive and significant at the 1% level. Importantly, we find that the Hansen J statistic is not significant, which gives an indication that we do not have an overidentification problem. In the second stage (specifications (2) and (5)), we run the same model as in model (3) and (6) of Table 3, respectively. We find that the impact of EPU on inbound (outbound) cross-border M&A flow remains significantly negative (positive). Overall, the results of the second-stage regression confirm our previous findings.

A further potential concern with our results is that the estimated relation between the cross-border M&As activity and EPU may be spurious due to a common positive trend in both series. This is potentially an issue, given that an increase in economic uncertainty could be driving

both economic policy uncertainty and cross-border investment activities. To address this issue, we estimate a specification based on (annual) changes rather than levels as in Table 3. Column (3) and (6) of Table 5 reports the results of regressing annual changes in the number of cross-border M&A deals on annual changes in EPU. The results confirm the effect of economic policy uncertainty on cross-border M&As, reducing the concerns of spurious correlation.

Finally, to accommodate any potential cross-country heterogeneity in the CBA dynamics, we also estimate a mean group estimator as implemented by Pesaran and Smith (1995).[9] The mean group estimator does not require that the dynamics of CBA and the transmission mechanisms of changes in EPU and other control variables in the model specification be the same, which could introduce estimation bias in specification (1). The method of Pesaran and Smith allows us to account for differences across countries in the transmission of changes in these macroeconomics variables on the variation in cross-border M&A activity.[10] Columns (4) and (7) of Table 5 report the result of DCCE estimators. Overall, the results are consistent with the earlier findings.

[INSERT TABLE 5 HERE]

4.2. EPU and cross-border acquisitions: Country-pair analysis

a. Empirical results

This section examines how the economic policy uncertainty difference between a given country pair affects the cross-border M&A activity between them. This bilateral analysis provides additional evidence about the importance of EPU on foreign acquisitions. The advantage of this analysis is that it controls for different determinants between countries that could affect the cross-border acquisitions, while examining the independent impact of policy

[9] We would like to thank the Referee for this very useful suggestion.
[10] We use the common correlated effects estimator from Ditzen (2018) and the package he created in STATA (xtdcce2).

uncertainty on timing and intensity of cross-border M&As. Following Cao, Li, and Liu (2017), our country-pair regression is computed as follows:

$$Ln(1+ Bilateral\ CBA)_{tgt,acq,i} = \beta_0 + \beta_1 * EPU_{i,t-1} + \beta_2 * X_{t-1} + \varepsilon_{tgt,acq,t} \qquad (2)$$

Where the dependent variable is the logarithm of one plus the total number of cross-border deals in year t between target country *tgt* and acquirer country *acq*. The main independent variable is the difference in EPU of target and acquirer country. As in the previous subsection, *X* is vector of control variables which are calculated as the difference between target *tgt* and acquirer country *acq*. All explanatory variables are lagged by one year. Moreover, following Rossi and Volpin (2004), Ferreira, Massa, and Matos (2010), and Erel, Liao, and Weisbach (2012), we insert four binary variables to control for the role of proximity and culture including same region, same border, same language and same religion. We also apply year fixed effects to minimize the effects of systematic differences across macroeconomic and country-specific conditions.

Our sample includes 23 countries over a 14-year time period, resulting in a matrix of 7,084 country-pair-year observations. However, there are a large number of country pairs that do not exhibit any cross-border transactions in a specific year. Hence, following Erel, Liao, and Weisbach (2012), we include only observations that have at least one deal in our regression. This reduces our final sample to 2,672 observations.

The results of regression (2) are presented in Table 6. The estimated coefficients of column (1) - (3) confirm our main findings. In particular, the spread between economic policy uncertainty of the target country and acquirer country is used as the independent variable in column (1). The coefficient is negative and statistically significant at the 5% level. It suggests that the volume of cross-border acquisition deals decline by 7.33% when there is a one standard deviation increase in the difference in policy uncertainty of the target country and acquirer

country. Column (2) controls for country characteristics such as Trade openness, Stock Market Cap, and Common Law. Column (3) shows the results of similar regression of column (2) but adding some other variables to control for proximity and cultural differences between countries. According to column (3), the estimated coefficient on the difference in policy uncertainty between target and acquirer countries is negative and significant at the 5% level (t statistic of -2.36). This result indicates that acquirer firms are less likely to invest in target firms in a higher policy uncertainty country.

Furthermore, the results of the control variables are also noteworthy and similar between three specifications. For instance, the estimate of the exchange rate is negative and statistically significant, which suggests that acquirers are more likely from a country with higher value of currency than a target country. This finding is in line with the observations of Alimov and Officer (2017). Our results also suggest that more bilateral cross-border deals are made between two countries having the same border, speaking the same language and similar cultural traits, which are implied in the studies of Rossi and Volpin (2004), Bris and Cabolis (2008), and Erel, Liao, and Weisbach (2012).

Overall, Table 6 provides further evidence about the relationship between economic policy uncertainty and cross-border M&A flow. This evidence suggests that when a country has high levels of policy uncertainty, this encourages firms to pursuing outbound takeovers, while firms will avoid a destination country with high policy uncertainty.

[INSERT TABLE 6 HERE]

b. Robustness tests

In this section, we further run a series of robustness tests to examine the effect of policy uncertainty on international M&A activity using bilateral data. A similar regression model and control variables as equation (2) are applied. However, there is a difference in the main

independent variable. In particular, the main explanatory variable in specifications (1) to (3) and (7) to (9) is the difference in economic policy uncertainty of target and acquirer country whereas it is the difference in EPU median, high EPU dummy variable, and VIX variable[11] in specification (4), (5), and (6), respectively. Similar to Table 4 and Table 5, we provide further clarification concerning our main finding by using difference estimation methods and techniques. The results for these tests are displayed in Table 7 and are quantitatively similar to our previous outcomes.

[INSERT TABLE 7 HERE]

4.3. Policy uncertainty and cross-border acquisitions: Deal analysis

The evidence thus far suggests the significant impact of economic policy uncertainty on the volume and direction of cross-border acquisition activities. In this section, we further identify whether EPU also affects the performance of M&A deal using deal-level data. Specifically, we will study the relationship between policy uncertainty and method of payment and deal premium. We also examine whether EPU affects on the propensity of full control deal, the probability of withdrawn and pending deal, and the time to completion. Finally, we investigate the effect of EPU on the announcement return.

a. EPU, method of payment, and deal premium

Method of payment

As discussed in the hypothesis development, cross-border M&As contain greater information asymmetry, compared to domestic M&As. In addition, economic policy uncertainty can lead to the volatility of future cash and financial constraints of firms. Thus

[11] The stock price volatility index, measured as the 360-day standard deviation of the return on the national stock market index. It is available at https://www.theglobaleconomy.com/rankings/Stock_price_volatility.

bidders are less likely to use liquidity asset (cash) to acquire another company when policy uncertainty is high. Therefore, we expect that acquirers tend to use stock as the mean of payment for a takeover deal with a firm in a target country with high policy uncertainty. In this section, we test this prediction by running the following probit model:

$$Stock\_dummy_i = \beta_0 + \beta_1 * EPU_{i,t-1} + \beta_2 * X_{t-1} + \varepsilon_{tgt,acq,t} \qquad (3)$$

Where the dependent variable is a dummy, which equals 1 if the payment for the M&A deal i is fully in stock and zero otherwise. The main independent variables are economic policy uncertainty of target and acquirer country - EPU_{tgt} and EPU_{acq} , respectively (specification 1) or the difference in EPU between target and acquirer countries (specification 2). *X* is the vector of control variables.

As the percentage of stock payment in an acquisition deal can range from 0% to 100%, we further test how policy uncertainty affects the proportion of stock payment by estimating the regression below:

$$Stock\_Prop_i = \beta_0 + \beta_1 * EPU_{i,t-1} + \beta_2 * X_{t-1} + \varepsilon_{tgt,acq,t} \qquad (4)$$

Where the dependent variable is the percentage of stock payment in the deal. The main independent variable also receives values as above. *X* is the vector of control variables. In both equations (3) and (4), we use three different sets of control variables, including acquirer, deal and country variables. First, we use deal-level data to test our hypothesis, thus we add several acquirer characteristic and deal-level variables, which are shown to impact merger payment consideration. Following Officer (2003), Nguyen and Phan (2017), and Bonaime, Gulen and Ion (2018), we control for acquirer characteristics by including firm size, cash holding, leverage, market to book ratio, and control for deal characteristics by adding diversifying, tender and completing offer.

Second, similarly to Table 5, our models contain a range of explanatory variables to capture the difference between acquire and target nations, including GDP per capita, GDP Growth, Trade Openness, Exchange Rate, Stock Market Cap; common law for investor protection and ICRG measures of business environment, government effectiveness and institutional quality. We also retain four dummy variables, including same region, same border, same language and same religion, in order to control for proximity and cultural differences between countries. The estimation results of model (3) and (4) are reported in columns (1)-(4) in Table 8.

Table 8, column (1) and (2) show the results of regression (3). The estimated coefficients of both variables of interest including economic policy uncertainty of target and acquirer countries are positive and statistically significant at the 1%, and 5% level, respectively. In particular, the coefficient of EPU_{tgt} is 0.462 (t=3.08) and that of EPU_{acq} is 0.169 (t=2.15). These results suggest that stock is the preferred mean of payment for cross-border M&A deals when the target and acquirer country are under high economic policy uncertainty. It is consistent with the evidence of Nguyen and Phan (2017). When we use the difference on economic policy uncertainty between target and acquirer countries as the main explanatory variable in column (2), we present similar results with the coefficient being 0.563 with a corresponding t statistic of 2.48. It further provides evidence that cross-border acquisition deals are more likely to be financed by stock when policy uncertainty in acquirer countries are lower than in the target country. This is in line with Hansen (1987) seminal model, which argues that the acquirer can use stock as payment method in acquisition deal for sharing risk with target shareholders. Our results indicate that economic policy uncertainty is significantly affect the method of payment in the direction predicted by risk-sharing theory. The sign and significance of control variables are similar to previous studies related to M&A method of payment. For

instance, firm size is negatively correlated to stock payment likelihood, which is in line with Rossi and Volpin (2004) and Nguyen and Phan (2017).

The estimation results of regression (4) are shown in column (3) and (4) in Table 8. Column (3) also reports a positive and significant relationship between economic policy uncertainty of target and acquirer country and the percentage of stock used for payment in cross-border deals. In particular, the proportion of stock increases by 6.22% in response to a one standard deviation rise in economic policy uncertainty in target country and this number for acquirer country is 5.24%. We also test how the difference in economic policy uncertainty between target and acquirer country affects the proportion of stock payment in international acquisitions as reported in column (4). The result also provides support for our hypothesis with the positive and significant coefficient. It suggests that acquirers prefer paying by stock when investing in M&A deal in the target countries with higher policy uncertainty.

[INSERT TABLE 8 HERE]

Acquisition Premium

We next explore whether acquisition premium offered to target firms by acquirer is affected by economic policy uncertainty, by running the following regression:

$$Premium_{i,j} = \beta_0 + \beta_1 EPU_{i,t-1} + \beta_2 X_{tgt,acq,t-1} + \varepsilon_{tgt,acq,t} \qquad (5)$$

Where the dependent variable is the 4-week offer premium reported by SDC, which is defined as the percentage difference between the offer price and the target's stock price four weeks before the announcement date. Following Officer (2003), we only include values between 0 and 200% in order to remove extreme outliers. The main independent variables and vector of control variables in columns (5) and (6) are similar to equation (3) and (4). In order to test whether the acquirer with higher EPU offer higher premium paid to target shareholders in stock

deals, we include the interaction term, EPU_{acq}* *Stock Deal* and run regression (5) in column (7). The final results of equation (5) are reported in columns (5)-(7) in Table 8.

Consistent with our expectation, in column (5) the coefficients of economic policy uncertainty in target and acquire countries are negative and statistically significant at the 5% and 1% level, respectively. It is also economically meaningful that a one standard deviation increases in economic policy uncertainty of target country leads to a 9.07% decline in premium offer. Meanwhile, the corresponding number of acquirer country is 4.98%. Similar results are displayed in column (6) when the difference in policy uncertainty between target and acquirer countries is the main independent variable. Following column (7) Table 8, the coefficient of interaction term EPU_{acq}* *Stock Deal* is positive at 0.247 and statistically significant at 5% level (t=2.19). This result suggests that target shareholders could receive higher premium in stock deals when the acquirer country has higher economic policy uncertainty.

In summary, Table 8 provides strong evidence for the view that economic policy uncertainty has a significant impact on the performance of cross-border M&A deals, preferring stock payment and receiving lower premium offer.

b. EPU, full control, and completion time

In the previous sections, we provide evidence that the target country is less likely to receive inbound cross-border M&A during the period of high economic policy uncertainty. We provide further support for this finding by examining whether EPU affects propensity of full control deals. In column (1) and (2) of Table 9, we present the result of propensity of full control deal using a probit regression. The dependent variable is a dummy which is set to one if the acquirer purchases 100% of the target's shares, and zero otherwise. The independent variables are similar to those reported in Table 8. We find that the coefficients for economic policy uncertainty in the target country and the acquirer country are negative and statistically

significant at the 5% and 10% level, respectively. Similarly, the estimated coefficient for the difference between target and acquirer countries is also negative and statistically significant at the 1% level. This suggests that economic policy uncertainty decreases the propensity of full control cross-border M&A deals.

Next, we test whether economic policy uncertainty complicates the acquisition process. In particular, we examine how economic policy uncertainty can affect the time to deal completion by estimating an additional model. The results are shown in columns (3) and (4) of Table 9. The dependent variable is the natural logarithm of one plus the number of dates from an M&A announcement to its completion. We also use the similar independent variables and the same set of control variables displayed in Table 8. Following Table 9 column (3), the coefficients of the EPU of target and acquirer countries are 0.414 (t=3.19) and 0.240 (t=1.80), respectively. Similar result is seen in column (4) when we use the spread in economic policy uncertainty between the target and acquirer countries as the main dependent variable. The positive and significant coefficients indicate that economic policy uncertainty complicates the takeover process by extending the duration of deal resolution.

[INSERT TABLE 9 HERE]

c. EPU and the announcement return

We first test the effect of EPU on the division of gains in the cross-border M&A deals. We conjecture that the target firms in countries with high economic policy uncertainty have a weaker bargaining position and, consequently, smaller acquisition gains. Therefore, foreign acquirers capture a larger fraction of the total acquisition gains, relative to local targets, when the host country is faced with high policy uncertainty.

We use two different measures to determine the division of gains in M&A deals. Specifically, we follow Ahern (2012) and Lee (2018) to calculate Δ$CAR (-1,+1) and Δ$CAR

(-3,+3) as the acquirer's cumulative abnormal dollar returns minus the target's cumulative abnormal dollar returns over 3 days and 7 days around the acquisition announcement, all scaled by the sum of the acquirer and target market values (in US dollars) 50 trading days prior to the announcement. CARs are estimated with the market model over the (-230, -31) trading days prior to the deal announcement. The estimation results are reported in columns (1) to (4) in Table 10. The coefficients of EPU in target country and the difference between target and acquirer countries are negative and statistically significant at 5% levels, while the coefficients of EPU in acquirer country is not statistically significant. These results suggest that stock markets react less favorably to M&A deals prior in a target country with relatively higher economic policy uncertainty. The results hold regardless of the way the division of gains are measured.

Next, we examine the impact of economic policy uncertainty on the acquirer's announcement return. We expect that the stock markets will more favorably to cross-border acquisitions with a target country that has lower economic policy uncertainty, because such deals help acquirers diversify home country political uncertainty.

We use the acquirer abnormal announcement returns (CARs) over the 3-day and 7-day event window to test the effect of EPU on acquirer announcement return. We then regress the acquirer CAR(-1, +1) and CAR(-3, +3) on similar economic policy uncertainty variables as Table 9. We use the same set of control variables including acquirer, deal, and country characteristics as previous. The results of these regressions are shown in columns (5) to (8) in Table 10. Specifically, Table 10 columns (5) and (6) report the results when the dependent variable of acquirer CAR(-1, +1); the results of acquirer CAR(-3, +3) are presented in columns (3) and (4). The estimated coefficients of economic policy uncertainty in the target country and the spread in EPU between the target and acquirer countries are negative and strongly significant at 1% level through column (1) to (4). For instance, when using acquirer CAR(-1,

+1) as dependent variable, the coefficient of EPU in target country is -0.053 (t= -3.04). This indicates that one standard deviation increases in economic policy uncertainty of the target country leads to 2.26% decrease in the abnormal return of the acquirer firms over the 3-day event window. Meanwhile, the coefficients of EPU in the acquirer country is positive, but not statistically significant.

Overall, these results suggest that stock markets will more favorably to M&A deals that help acquirers to diversify their home-country economic policy uncertainty.

[INSERT TABLE 10 HERE]

5. Conclusion

This study provides empirical evidence concerning the impact of economic policy uncertainty on cross-border M&As using a sample of 23 countries over the time period 2004-2017. Using the policy uncertainty index developed by Baker, Bloom, and Davis (2016) to measure the overall uncertainty of an economy, we find strong evidence that policy uncertainty has a negative effect on the volume and performance of international acquisition activities. In particular, when policy uncertainty in home countries increases, target countries receive fewer merger offers from overseas, whereas acquirers are more likely to engage in cross-border M&As. At the transaction level, acquirers are more likely to pay for targets by stock instead of cash with a lower premium offer when policy uncertainty is high in the target country. Our main finding is enriched when we examine further impacts of policy uncertainty on cross-border deal's characteristics. We show that the full control deal propensity declines while the rate of withdrawn and pending deals increase if the target country has high policy uncertainty.

Overall, our results have important implications for policy makers and practitioners. Specifically, the findings reveal the effects of economic policy uncertainty on cross-border investments, value creation, and the process of M&A activity, indicating that it has substantial

economic effects. Additionally, the results highlight the significance of the M&A setting as a mechanism to examine the valuation implications under the high economic policy uncertainty. Also, the evidence from this study suggests that target firms located in countries with high EPU receive lower acquisition premiums, which negatively affects their shareholders' value. Therefore, managers and financial advisors should take this information into account when engaging in M&A deals.

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Appendix A: Variable Definitions and Data Sources

Country-level variables

- **Business Environment:** Investment profile index from the ICRG.
- **Command Law:** Indicator variable that equals one if the legal origin the country is the English common law and zero otherwise (La Porta et al., 1998).
- **EPU:** the news-based economic policy uncertainty index of Baker et al. (2016). Original index is available with monthly frequency. We calculated average over 12 months to get annual values. Finally, EPU equals natural log of annual values.
- **EPU Median:** The median value of EPU.
- **EPU/Global EPU:** The ratio of EPU over the total EPU index.
- **Exchange Rate:** Exchange rate in USD divided by purchasing power parity (PPP) (Source: World Penn Tables).
- **GDP Growth**: Growth rate of gross domestic product in USD (Source: World Bank Development Indicators).
- **Government Effectiveness:** ICRG Political Risk (ICRGP) subcomponent: bureaucratic quality (Bekaert, Harvey, and Lundblad, 2005).
- **High EPU:** a dummy variable that equals 1 if country's economic policy uncertainty index is greater than EPU median, zero otherwise.
- **Political Risk Index:** consists of 12 components measuring various dimensions of the political and business environment facing firms operating in a country. (Source: the International Country Risk Guide (ICRG)).
- **Ln(GDP per capita)**: The natural logarithm of gross domestic product (in USD) divided by the average population (Source: World Bank Development Indicators).
- **Quality of Institutions:** Sum of ICRG Political Risk (ICRGP) subcomponents: corruption, law and order, and bureaucratic quality (Bekaert, Harvey, and Lundblad, 2005).
- **Same Border:** Indicator variable that equals one if the target and acquirer countries share the border, and zero otherwise (World Factbook).
- **Same Language:** Indicator variable that equals one if the target and acquirer countries share the same official language, and zero otherwise (World Factbook).
- **Same Region:** Indicator variable that equals one if the target and acquirer countries are from the same region, and zero otherwise (World Factbook).

- **Same Religion:** Indicator variable that equals one if the target and acquirer countries' primary religion (Protestant, Catholic, Muslim, Buddhist, or Others) are the same (Stulz and Williamson, 2003).
- **Stock Deal:** a dummy variable equaling 1 if the payment for an M&A deal is fully in stock, and zero otherwise.
- **Stock Market Cap:** the ratio of market capitalization over GDP.
- **Trade Openness**: the percentage of total imports and exports value to GDP (World Bank).
- **VIX:** The stock price volatility index, measured as the 360-day standard deviation of the return on the national stock market index (The Global Economy)

Firm-level variables (source: DataStream)

- **Firm Size:** The natural logarithm of total asset value in USD (WC02999)
- **Cash Holding:** Total cash and equivalent (WC02001) scaled by total assets (WC02999).
- **Leverage:** The sum of long-term debt (WC03251) and debt in current liabilities (WC03051) scaled by total assets (WC02999).
- **Market-to-Book:** The market value of the ordinary (common) equity divided by the balance sheet value of the ordinary (common) equity in the company (MTBV).

Deal variables (Source: Thomson Financial SDC)

- **Diversifying:** Indicator variable that equals one if both acquirer and target are in the same industry sector as measured by 3-digit SIC, and zero otherwise.
- **Tender Offer:** Indicator variable that equals one if deals defined as tender offers, and zero otherwise.
- **Competing Offer:** Indicator variable that equals one if there are competing bids for the same deal, and zero otherwise.

Table 1: Descriptive Statistics of Number of M&A Deals for Each Country

The table reports number and value of all deals and number and value of cross-border deals by acquirer and target country, from 2004 to 2017. The total deal value is expressed in millions of dollars. Panel B reports the distribution of the total number of acquisition deals between acquirer country (columns) and target country (rows) between 2004 and 2017. Refer to Table 1 for full country names. Number of deals between two countries are blanks if no deals occurred between them in the whole time period.

Country	All deals by acquirer nation		Cross-border deals by acquirer nation		All deals by target nation		Cross-border deals by target nation	
	Number	Value	Number	Value	Number	Value	Number	Value
Australia (AU)	7,456	1,207,086	1,117	351,937	7,634	1,242,983	1,295	387,834
Brazil (BR)	1,545	490,533	85	63,297	1,954	523,562	494	96,326
Canada (CA)	10,339	1,593,674	3,248	689,097	8,716	1,371,738	1,625	467,160
Chile (CL)	379	60,826	59	12,591	554	89,316	234	41,081
China (CN)	17,170	2,033,685	967	286,505	18,735	2,036,832	2,532	289,652
Colombia (CO)	167	42,264	34	12,420	309	55,041	176	25,197
Germany (DE)	1,878	977,602	713	531,451	2,463	886,817	1,298	440,666
Spain (ES)	1,799	641,262	410	275,359	2,046	632,936	657	267,034
France (FR)	2,521	1,099,158	845	527,721	2,615	846,987	939	275,550
Greece (GR)	200	60,466	25	2,307	242	80,092	67	21,933
Hong Kong (HK)	4,963	659,332	2,103	335,902	3,603	450,254	743	126,824
India (IN)	1,826	187,865	470	49,239	1,786	198,037	430	59,411
Ireland (IR)	767	228,933	444	166,606	653	292,721	330	230,394
Italy (IT)	2,006	545,887	334	120,101	2,245	644,371	573	218,584
Japan (JP)	7,095	1,068,016	756	301,287	6,624	857,968	285	91,239
South Korea (KR)	3,519	418,515	306	52,615	3,484	408,237	271	42,338
Mexico (MX)	435	211,465	99	52,971	844	214,396	508	55,902
Netherlands (NL)	1,025	718,397	600	425,175	1,038	701,201	613	407,979
Russia (RU)	1,188	364,713	95	44,546	1,292	364,340	199	44,174
Sweden (SE)	1,793	247,790	448	82,827	1,738	337,553	393	172,590
Singapore (SG)	1,979	267,406	798	132,554	1,623	194,251	442	59,399
United Kingdom (UK)	12,278	2,481,296	3,080	1,044,215	11,821	2,908,793	2,623	1,471,713
United States (US)	36,044	14,754,305	5,076	1,901,256	36,353	15,022,048	5,385	2,168,999

Table 1 (Continued)

Panel B: Number of Cross-border M&A Deals between Country Pairs

	AU	BR	CA	CL	CN	CO	DE	ES	FR	GR	HK	IN	IR	IT	JP	KR	MX	NL	RU	SE	SG	UK	US
AU	*6,339*	28	114	39	51	8	41	18	13	2	39	15	10	5	11	10	10	14	7	10	56	200	416
BR	5	*1,460*	6	6	3	8	1	5	3			2		3	1		5	2				5	30
CA	173	88	*7,091*	73	89	76	64	27	35	3	40	16	23	10	2	7	271	22	12	25	3	200	1,989
CL	1	22	3	*320*		19		2				1					1	1				1	8
CN	99	9	56	3	*16,203*	3	39	11	25	1	328	3	3	28	33	16	4	24	4	7	50	42	179
CO		5	5	6		*133*		1					1				5	1				1	9
DE	28	9	14	3	15	2	*1,165*	46	78	3	5	22	9	33	10	4	4	52	7	39	13	122	195
ES	8	35	7	15	6	9	25	*1,389*	54	3	2	12	2	51	2	4	19	11	4	8	1	52	80
FR	18	35	31	5	35	5	96	85	*1,676*	7	8	26	7	80	6	9	5	39	7	19	11	116	195
GR					2		2	5		*175*	1			3	1	1		2	1			1	6
HK	79	13	45	2	1,559	2	15	4	9		*2,860*	10		7	36	31	3	6	3	7	99	68	105
IN	29	11	17	3	6	2	26	9	22	2		*1,356*	4	13	2	5	3	9	3	3	27	80	194
IR	10	2	19		8	2	20	8	15		1	3	*323*	5	3	1	3	19	2	6	3	179	135
IT	13	15	5	5	13		33	35	48	6	1	10	3	*1,672*	2	1	5	17	9	3	5	52	53
JP	49	17	19	3	59		38	8	14		27	40	5	15	*6,339*	47	2	16	3	6	54	75	259
KR	12	1	20		69		10	2	7		16	12		2	25	*3,213*	1	5	3		8	13	100
MX	2	15	7	4	2	8	1	14				1	1				*336*	2				1	41
NL	13	10	20	2	19	2	71	33	58	6	5	12	8	31	8	9	11	*425*	29	36	10	98	109
RU	1		9		2		8	1	3	6		3		9				6	*1,093*	2	2	16	27
SE	12	4	21	3	9	1	62	20	33	1		5	6	11		6	2	26	17	*1,345*	7	85	117
SG	122	6	10	1	237		14	6	7		138	59	2	2	44	20	1	12	2	4	*1,181*	57	54
UK	259	40	152	13	68	11	325	147	234	13	31	46	136	127	12	20	12	156	51	111	32	*9198*	1,084
US	362	129	1,045	48	280	18	407	170	281	14	101	132	110	138	87	80	141	171	35	107	61	1,159	*30,968*

Table 2: Descriptive Statistics

The table presents the summary statistics of key variables used in our analysis. Specifically, it reports the mean, standard deviation, mi, max, and number of observations for country, firm, and deal variables, respectively. The definitions of all variables are provided in Appendix A. We winsorize all data at the 1st and 99th percentiles.

	Mean	Std. Dev.	Min	Max	Observations
Country characteristics					
EPU	4.710	0.426	3.332	6.299	322
Ln(GDP per Capita)	9.857	1.070	6.294	11.127	322
GDP Growth	2.891	3.538	-9.132	15.240	322
Trade Openness	0.861	0.945	0.216	4.426	322
Exchange Rate	100.514	12.933	64.130	166.050	322
Stock Market Cap	0.833	0.498	0.119	2.980	322
Common Law	0.348	0.477	0.000	1.000	322
Business Environment	0.827	0.180	0.320	1.000	322
Government Effectiveness	0.777	0.216	0.250	1.000	322
Quality of Institutions	2.110	0.559	1.000	2.920	322
Firm Characteristics					
Firm Size	5.914	4.494	2.097	12.766	4,663
Cash Holding	0.210	0.243	0.000	0.973	4,663
Leverage	0.187	0.200	0.000	0.833	4,663
Market-to-Book	2.026	3.482	0.040	7.930	4,663
Deal Characteristics					
Diversifying	0.586	0.493	0.000	1.000	4,663
Tender Offer	0.054	0.227	0.000	1.000	4,663
Competing Offer	0.024	0.152	0.000	1.000	4,663

Table 3: EPU and Cross-border M&As - Country-level Analysis

The table presents the effects of EPU on the cross-border M&A activity, using a sample of cross-border M&A deals in 23 countries between 2004 and 2017. Specifications (1) through (3) present estimation results on target–country inbound acquisitions, where the dependent variable is the natural log of one plus the total number of cross-border M&A deals in the target country. Specifications (3) through (5) present estimation results on acquirer–country outbound acquisitions, where the dependent variable is the natural log of one plus the total number of cross-border M&A deals in the acquirer country. The definitions of all variables are provided in Appendix A. All control variables are lagged by one year. Country and year fixed effects, whose coefficients are suppressed, are based on country dummies and calendar year dummies, respectively. The t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and are clustered by country. The symbols ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels.

	Inbound Cross-border M&A Flow			**Outbound Cross-border M&A Flow**		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
EPU	-0.154**	-0.151*	-0.143**	0.143***	0.148***	0.152***
	(-2.33)	(-1.94)	(-2.21)	(4.35)	(5.47)	(3.90)
Ln(GDP per Capita)		0.548***	0.432**		0.707***	0.517*
		(3.20)	(2.38)		(3.09)	(1.92)
GDP Growth		0.151***	0.122**		0.135**	0.087
		(2.95)	(2.08)		(2.77)	(1.49)
Trade Openness		0.263*	-0.400***		0.117	-0.080
		(1.84)	(-2.94)		(0.73)	(-0.59)
Exchange Rate			0.001			0.007
			(0.07)			(0.99)
Stock Market Cap			0.072*			-0.084*
			(1.84)			(-1.76)
Common Law			0.872**			1.166***
			(2.34)			(3.59)
Business Environment			0.009			0.290
			(0.01)			(0.21)
Government Effectiveness			0.250			-0.256
			(0.15)			(-0.23)
Quality of Institutions			0.140			0.388
			(0.19)			(0.74)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	322	322	322	322	322	322
Adjusted R^2	0.112	0.374	0.548	0.133	0.439	0.658

Table 4: EPU and Cross-border M&As - Robustness Tests

The table presents the effects of EPU on the cross-border M&A activity, using a sample of cross-border M&A deals in 23 countries between 2004 and 2017. Panel A presents estimation results on target–country inbound acquisitions, while panel B presents estimation results on acquirer–country outbound acquisitions. The dependent variable in the specifications (1), (4), (5), (6), (7), and (8) is the natural log of one plus the total number of cross-border M&A deals in the target (acquirer) country, respectively. The dependent variable in the specification (2) is the cross-border ratio as the total number of cross-border M&A deals in the target (acquirer) country scaled by the total number of M&A deals in the target (acquirer) country, respectively. The dependent variable in the specification (3) is the natural log of one plus the total value of cross-border M&A deals in the target (acquirer) country, respectively. The definitions of all variables are provided in Appendix A. All control variables are lagged by one year. Country and year fixed effects, whose coefficients are suppressed, are based on country dummies and calendar year dummies, respectively. The t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and are clustered by country. The symbols ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A: Inbound Cross-border M&A Flow

	Exclude US and UK	Tobit Model	Value of Deals	SUR standard errors	EPU Median	EPU/ Global EPU	High EPU	VIX
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EPU	-0.128**	-0.119*	-0.220***	-0.143*				
	(-2.11)	(-1.82)	(-3.07)	(-2.12)				
EPU Median					-0.122**			
					(-2.07)			
EPU/ Global EPU						-0.131**		
						(-2.74)		
High EPU							-0.123*	
							(-2.51)	
VIX								-0.101***
								(-3.30)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	294	322	322	322	322	322	322	322
Adjusted R^2 (Pseudo R^2)	0.551		0.363	0.658	0.513	0.526	0.543	0.502

Panel B: Outbound Cross-border M&A Flow

	Exclude US and UK	Tobit Model	Value of Deals	SUR standard errors	EPU Median	EPU/ Global EPU	High EPU	VIX
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EPU	0.141***	0.129**	0.207***	0.152**				
	(4.32)	(2.17)	(4.75)	(2.24)				
EPU Median					0.146*			
					(1.90)			
EPU/ Global EPU						0.124**		
						(2.73)		
High EPU							0.127*	
							(2.01)	
VIX								0.117***
								(2.77)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	294	322	322	322	322	322	322	322
Adjusted R^2 (Pseudo R^2)	0.671		0.423	0.686	0.622	0.615	0.632	0.591

Table 5: 2SLS, Differences, and DCCE Analysis

The table presents the effects of EPU on the cross-border M&A activity, using a sample of cross-border M&A deals in 23 countries between 2004 and 2017. In specification (1) we present the first-stage regression estimates in a two-stage least squares (2SLS) estimation. In specification (2) and (6) we present the second-stage regression estimates in a two-stage least squares (2SLS) estimation. In specification (3) and (7) we present the regression result of changes in the cross-border M&A activity on changes in EPU, as well as other control variable. In specification (3) and (7) we present the dynamic common correlated estimator (DCCE) regression. The dependent variable in the specifications (1) is EPU, where the instrumental variable is the Political Risk Index from the International Country Risk Guide (ICRG). The dependent variable in the specifications (2), (4), (5) and (7) is the natural log of one plus the total number of cross-border M&A deals in the target (acquirer) country, respectively. The dependent variable in the specifications (3) and (6) is the natural log of one plus the change in number of cross-border M&A deals in the target (acquirer) country, respectively. The definitions of all variables are provided in Appendix A. All control variables are lagged by one year. Country and year fixed effects, whose coefficients are suppressed, are based on country dummies and calendar year dummies, respectively. The t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and are clustered by country. The symbols ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels.

		Inbound Cross-border M&A Flow			**Outbound Cross-border M&A Flow**		
	2SLS 1st stage	**2SLS 2nd stage**	**Differences**	**DCCE**	**2SLS 2nd stage**	**Differences**	**DCCE**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
EPU		-0.312**	-0.095**	-0.051***	0.412***	0.070**	0.043**
		(-2.38)	(2.44)	(2.74)	(3.11)	(2.34)	(2.21)
Political Risk Index	0.168***						
	(4.41)						
Ln(GDP per Capita)	-0.015*	0.149*	0.534*	1.257***	0.312**	0.242*	0.875***
	(-1.91)	(2.03)	(1.90)	(3.90)	(2.84)	(1.85)	(3.01)
GDP Growth	0.016	-0.253**	0.112	0.014	0.068	0.088*	0.336
	(0.59)	(-2.21)	(1.32)	(0.74)	(1.32)	(1.69)	(0.74)
Trade Openness	-0.001	0.001	0.113	0.0136	-0.043	0.089	0.148
	(-0.57)	(0.07)	(0.74)	(0.74)	(-0.57)	(1.54)	(0.71)
Exchange Rate	0.153***	0.798	0.054		0.012	0.023	
	(2.84)	(1.63)	(1.45)		(0.25)	(1.27)	
Stock Market Cap	-1.229***	0.775	0.221		-0.456	0.094*	
	(-6.19)	(0.39)	(1.28)		(-1.11)	(1.13)	
Common Law	-0.857***	-0.071**	0.732**		0.118	0.023	
	(-3.14)	(-2.12)	(2.17)		(-0.08)	(0.12)	
Business Environment	0.120**	0.123	0.213		-0.134	-0.312	
	(2.12)	(1.07)	(0.91)		(-0.53)	(-1.05)	
Government Effectiveness	0.345	1.425	0.065		0.265	0.412	
	(1.52)	(1.25)	(1.51)		(0.47)	(1.25)	
Quality of Institutions	0.436*	0.368	0.412		0.321	0.102	
	(1.68)	(1.05)	(1.45)		(1.32)	(0.96)	
Hansen J-statistic		2.804			2.914		
p-value		0.730			0.812		
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	322	322	299	322	322	299	322
Adjusted R^2	0.513		0.593	0.613		0.610	0.671

Table 6: Policy Uncertainty and Bilateral Cross-border M&As

The table presents the effects of EPU on the bilateral cross-border M&A activity, using a sample of cross-border M&A deals in 23 countries between 2004 and 2017. The dependent variable is the natural log of one plus the total number of cross-border M&A deals between target country *tgt* and acquirer country *acq*. $X_{tgt-acq}$ is notation for the differences between target country *tgt* and acquirer country *acq,* measured in year t-1. The definitions of all variables are provided in Appendix A. The definitions of all variables are provided in Appendix A. All control variables are lagged by one year. Year fixed effects, whose coefficients are suppressed, are based on calendar year dummies. The t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and are clustered by country-pair level. The symbols ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels.

	Ln(1+Number of Cross-border M&A) pair		
	(1)	**(2)**	**(3)**
$EPU_{tgt-acq}$	-0.172**	-0.166**	-0.185**
	(-2.20)	(-2.12)	(-2.36)
$Ln(DP\ \ per\ Capita)_{tgt-acq}$		0.008	0.017
		(0.16)	(0.39)
$DP\ \ rowth\ _{tgt-acq}$		0.011**	0.012**
		(2.15)	(2.21)
$Trade\ Openness_{tgt-acq}$		-0.058	-0.173
		(-0.37)	(-1.14)
$Exchange\ Rate_{tgt/acq}$		-0.281**	-0.313**
		(-2.02)	(-2.15)
$Stock\ Market\ Cap_{tgt-acq}$		-0.286***	-0.348***
		(-5.11)	(-6.21)
$Common\ Law_{tgt-acq}$		-0.056	-0.081
		(-1.21)	(-1.36)
$Business\ Environment_{tgt-acq}$		-0.124	-0.184
		(-0.30)	(-0.53)
$overnment\ \ Effectiveness_{tgt-acq}$		0.039	0.009
		(0.22)	(0.06)
$Quality\ of\ Institutions_{tgt-acq}$		0.091	0.093
		(1.15)	(1.12)
Same Region			0.613**
			(2.45)
Same Border			0.798***
			(6.47)
Same Language			0.065
			(0.61)
Same Religion			2.840***
			(24.16)
Year fixed effects	Yes	Yes	Yes
Observations	2,672	2,672	2,672
Adjusted R^2	0.421	0.545	0.621

Table 7: EPU and Bilateral Cross-border M&As - Robustness Tests

The table presents the effects of EPU on the bilateral cross-border M&A activity, using a sample of cross-border M&A deals in 23 countries between 2004 and 2017. The dependent variable in the specifications (1), (4), (5), (6), (7) and (9) is the natural log of one plus the total number of cross-border M&A deals between target country *tgt* and acquirer country *acq*. The dependent variable in the specifications (2) is the total number of cross-border M&A deals between target country *tgt* and acquirer country *acq* scaled by sum of the number of domestic deals in target country tgt and the total number of cross-border M&A deals between target country *tgt* and acquirer country *acq*. The dependent variable in the specification (3) is the natural log of one plus the total value of cross-border M&A deals between target country *tgt* and acquirer country *acq*. The dependent variable in the specifications (8) is the natural log of one plus the change in number of cross-border M&A deals between target country *tgt* and acquirer country *acq*. The definitions of all variables are provided in Appendix A. All control variables are lagged by one year. Year fixed effects, whose coefficients are suppressed, are based on calendar year dummies. The t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and are clustered by country-pair level. The symbols ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels.

	Exclude US and UK	**Tobit Model**	**Value of Deals**	**EPU Median**	**High EPU**	**VIX**	**2SLS**	**Differences**	**DCCE**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
$EPU_{tgt-acq}$	-0.148**	-0.091***	-0.312**				-0.099**	-0.065***	-0.116***
	(-2.19)	(-2.82)	(-2.01)				(-2.09)	(-2.82)	(-2.81)
$EPU\ Median_{tgt-acq}$				-0.099**					
				(-2.42)					
$High\ EPU_{tgt-acq}$					-0.112***				
					(-2.71)				
$VIX_{tgt-acq}$						-0.081***			
						(-2.97)			
Control variables in Table 6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,868	2,672	2,672	2,672	2,672	2,672	2,672	2,672	2,672
Adjusted R^2	0.348		0.421	0.473	0.425	0.412		0.405	0.391

Table 8: EPU, Method of Payment, and Premium Offer

The table presents the effects of EPU on method of payment and deal premium, using a sample of cross-border M&A deals in 23 countries between 2004 and 2017. Specifications (1) and (2) present estimates of probit regressions and specifications (3)-(7) present estimates of OLS regressions. The dependent variable in the specifications (1)-(2) is a dummy variable equaling 1 if the payment for an M&A deal is fully in stock, and zero otherwise, while the dependent variable in the specifications (3)-(4) is the percentage of stock payment. The dependent variable in the specifications (5)-(7) is bid premium defined as offer price over the target's stock price 4 weeks before the announcement. The definitions of all variables are provided in Appendix A. All control variables are lagged by one year. Year, industry, and country fixed effects, whose coefficients are suppressed, are based on calendar year dummies, industry dummies, and country dummies respectively. The z-statistics and t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and are clustered at the country level. The symbols ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels.

	Stock Payment (dummy)		**Stock Payment (%)**		**Premium Offer (%)**		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
EPU_{tgt}	0.426***		0.146**		-0.213**		
	(3.08)		(2.22)		(-2.36)		
EPU_{acq}	0.169**		0.123*		-0.117*		0.017
	(2.15)		(1.72)		(1.75)		(0.29)
$EPU_{tgt-acq}$		0.563**		0.165**		-0.353**	
		(2.48)		(2.39)		(-2.14)	
EPU_{acq}* Stock Deal							0.247**
							(2.19)
Stock Deal							-0.115
							(-1.40)
Acquirer Characteristics							
Firm Size	-0.162***	-0.162***	-0.037***	-0.037***	-0.010	-0.009	-0.015*
	(-12.57)	(-12.66)	(-15.07)	(-15.12)	(-1.16)	(-1.10)	(-1.78)
Cash Holding	0.223*	0.210*	0.108***	0.106***	0.191	0.193	0.212*
	(1.78)	(1.69)	(2.87)	(2.84)	(1.55)	(1.57)	(1.72)
Leverage	0.003	0.003	0.002	0.002	-0.057	-0.056	-0.067
	(0.38)	(0.37)	(1.26)	(1.24)	(-0.77)	(-0.75)	(-0.96)
Market-to-Book	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(-0.92)	(-0.91)	(-0.66)	(-0.66)	(-0.30)	(-0.42)	(-0.39)
Deal Characteristics							
Diversifying	-0.037	-0.034	-0.012	-0.012	-0.015	-0.017	-0.021
	(-0.72)	(-0.66)	(-1.24)	(-1.21)	(-0.57)	(-0.64)	(-0.78)
Tender Offer	0.226*	0.220*	0.021	0.021	0.083***	0.084***	0.079***
	(1.78)	(1.72)	(0.88)	(0.86)	(3.41)	(3.46)	(3.15)
Competing Offer	0.291*	0.300**	0.068**	0.069**	0.149***	0.148***	0.147***
	(1.92)	(1.97)	(2.45)	(2.48)	(3.11)	(3.10)	(3.12)
Country Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,663	4,663	4,663	4,663	856	856	856
Pseudo R^2 (Adjusted R^2)	0.173	0.173	(0.187)	(0.187)	(0.097)	(0.096)	(0.104)

Table 9: EPU, Full Control Propensity, and Time to Completion

The table presents the effects of EPU on the propensity of full control deal and the time to completion, using a sample of cross-border M&A deals in 23 countries between 2004 and 2017. Specifications (1) and (4) present estimates of probit regressions and specifications (3)-(4) present estimates of OLS regressions. The dependent variable in the specifications (1)-(2) is a dummy variable equaling 1 if the acquirer purchases 100% of the target's shares, and zero otherwise. The dependent variable in the specifications (3)-(4) is the natural logarithm of one plus the number of dates from an M&A deal announcement to its completion. The definitions of all variables are provided in Appendix A. All control variables are lagged by one year. Year, industry, and country fixed effects, whose coefficients are suppressed, are based on calendar year dummies, industry dummies, and country dummies respectively. The z-statistics and t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and are clustered at the country level. The symbols ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels.

	Full Control		**Time of Completion**	
	(1)	**(2)**	**(3)**	**(4)**
EPU_{tgt}	-0.244**		0.414***	
	(-2.43)		(3.19)	
EPU_{acq}	-0.115*		0.240*	
	(-1.95)		(1.80)	
$\text{EPU}_{tgt-acq}$		-0.277***		0.473**
		(-2.98)		(2.16)
Acquirer Characteristics				
Firm Size	-0.012	-0.013	0.010	0.011
	(-1.33)	(-1.38)	(0.49)	(0.53)
Cash Holding	-0.256***	-0.258***	1.076***	1.083***
	(-3.01)	(-3.07)	(5.33)	(5.36)
Leverage	0.002	0.002	-0.009	-0.009
	(0.48)	(0.47)	(-0.86)	(-0.85)
Market-to-Book	-0.001**	-0.001**	0.000	0.000
	(-2.30)	(-2.30)	(0.03)	(0.01)
Deal Characteristics				
Diversifying	-0.151***	-0.151***	-0.097	-0.097
	(-3.31)	(-3.29)	(-1.40)	(-1.40)
Tender Offer	0.161**	0.160**	1.508***	1.508***
	(2.13)	(2.11)	(11.91)	(11.94)
Competing Offer	-0.702***	-0.701***	0.825***	0.821***
	(-6.53)	(-6.52)	(6.02)	(6.01)
Country Characteristics	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes
Observations	4,663	4,663	4,663	4,663
Pseudo R^2 (Adjusted $R^{2)}$	0.094	0.095	(0.086)	(0.086)

Table 10: EPU and Announcement Returns

The table presents the effects of EPU on the M&A announcement returns, using a sample of cross-border M&A deals in 23 countries between 2004 and 2017. The dependent variable in the specifications (1) through (4), $\Delta\$CAR_{acq\text{-}tar}$, is the acquirer's cumulative abnormal dollar returns minus the target's cumulative abnormal dollar returns over 3 or 7 days around the acquisition announcement, all scaled by the sum of the acquirer and target market values (in US dollars) 50 trading days prior to the announcement, respectively. CARs are estimated with the market model over the (-230, -31) trading days prior to the deal announcement. The dependent variables in the specifications (5) through (8) are the acquirer abnormal announcement returns - *Acquirer CAR*, measured as cumulative abnormal dollar returns over 3 and 7 days around the acquisition announcement, respectively. The definitions of all variables are provided in Appendix A. All control variables are lagged by one year. Year, industry, and country fixed effects, whose coefficients are suppressed, are based on calendar year dummies, industry dummies, and country dummies respectively. The t-statistics reported in parentheses are based on standard errors adjusted for heteroscedasticity and are clustered at the country level. The symbols ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels.

	Δ$CAR*acq-tar*				**Acquirer CAR**			
	CAR (-1,+1)		**CAR (-3,+3)**		**CAR (-1,+1)**		**CAR (-3,+3)**	
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
EPU_{tgt}	-0.038**		-0.029**		-0.053***		-0.041***	
	(-2.04)		(-2.02)		(-3.04)		(-3.24)	
EPU_{acq}	0.018		0.024		0.032		0.021	
	(1.41)		(1.42)		(1.46)		(1.32)	
$EPU_{tgt-acq}$		-0.062**		-0.050**		-0.074***		-0.067***
		(-2.21)		(-2.07)		(-2.72)		(-2.68)
Acquirer Characteristics								
Firm Size	-0.010	-0.009	-0.010	-0.009	-0.027***	-0.027***	-0.029***	-0.029***
	(-1.14)	(-1.07)	(-1.21)	(-1.13)	(-12.38)	(-12.44)	(-13.75)	(-13.68)
Cash Holding	0.176	0.179	0.181	0.184	0.086***	0.084***	0.083***	0.081***
	(1.51)	(1.53)	(1.52)	(1.54)	(2.78)	(2.74)	(2.78)	(2.68)
Leverage	-0.066	-0.064	-0.065	-0.063	0.003**	0.003**	0.003**	0.003**
	(-0.87)	(-0.86)	(-0.86)	(-0.85)	(2.33)	(2.31)	(2.19)	(2.14)
Market-to-Book	-0.002	-0.003	-0.002	-0.002	-0.005	-0.005	-0.004	-0.004
	(-0.46)	(-0.60)	(-0.42)	(-0.56)	(-0.73)	(-0.72)	(-0.86)	(-0.90)
Target Firm Characteristics								
Firm Size	-0.017	-0.019	-0.014	-0.016				
	(-0.64)	(-0.72)	(-0.52)	(-0.59)				
Cash Holding	0.080***	0.082***	0.081***	0.082***				
	(3.57)	(3.63)	(3.56)	(3.62)				
Leverage	0.150	0.148	0.150	0.148				
	(1.13)	(1.11)	(1.12)	(1.10)				
Market-to-Book	-0.003*	-0.003	-0.005	-0.006				
	(-1.88)	(-1.12)	(-1.00)	(-1.05)				
Deal Characteristics								
Diversifying	0.001	0.002	-0.028	0.008	0.006	0.024	-0.028	0.008
	(0.02)	(0.11)	(-0.07)	(0.02)	(0.02)	(0.11)	(-0.07)	(0.02)
Tender Offer	0.018	0.007	-0.786	-0.953	0.182	0.070	-0.786	-0.953
	(0.61)	(0.24)	(-1.11)	(-1.39)	(0.61)	(0.24)	(-1.11)	(-1.39)
Competing Offer	-0.025	-0.026	-0.189	-0.236	-0.052	-0.260	-0.189	-0.236
	(-0.81)	(-0.73)	(-0.31)	(-0.40)	(-0.81)	(-0.73)	(-0.31)	(-0.40)
Country Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	137	137	137	137	856	856	856	856
Adjusted R^2	0.093	0.092	0.092	0.092	0.122	0.122	0.118	0.118