


Impact of economic policy uncertainty on dividend decision: A moderating role of board financial expertise

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Increased competition in the world of emerging financial markets has highlighted the need for more strategic and far-sighted decisions. Living in a constrained economy investor has always been sensitive about the dividend patterns offered by the firm. Current study focuses on the moderating role of board financial expertise (BFE) on dividend decision of the firm during economic policy uncertainty (EPU), by taking data for 517 nonfinancial listed firms from year 2007–2015. Study presents its empirical model in two forms based on dividend initiation (Di) by nondividend payer firms and dividend termination (Dt) by already dividend paying firms during EPU. Logit model was employed to access the effect of explanatory variables on the probability of terminating the dividend by dividend payers and probability of initiating the dividend by nondividend payers during EPU. The results indicate that firms terminate dividend at the time of uncertainty, but when BFE was introduced as a moderator, previously non-payer firms initiate dividend and previously payer firms sustain dividends payments at the time of EPU that remains robust with the inclusion of additional CEO level and corporate governance variables. Study further confirms during the EPU, dividend decisions in turn significantly affect firm value as supported by expectancy theory. Results suggest that BFE can be an important signal for keen market participants in deciding future dimensions of a firm.

KEYWORDS

board financial expertise, dividend policy, economic policy uncertainty, emerging financial market

1 | INTRODUCTION

Dividend policy behavior is at the core of finance theories and is still the most debatable and prominent issue in the corporate finance literature for both developed and developing markets. Numerous researchers have devised theories and studies to uncover the issues pertinent to dividend policy dynamics, but Black (1976) refers to the dividend as a puzzle. Brealey and Myers (2003) argue that the dividend is among the top 10 unresolved problems of finance. Lintner (1956) proposes the dividend partial adjustment model and suggests that current year profits and previous year dividends are the only two contributing factors for a firm's dividend.

A plethora of literature identifies debt financing, earning measures, free cash flows, firm growth, investment opportunities, firm size, large shareholders, firm risk level, and so forth, as potential contributors for determining a firm's dividend policy for both developed and developing markets (Bhattacharya, 1979; Ho, 2003; Kale and Noe, 1990; Charalambous et al., 2000; Al-Malkawi, 2007; Anil and Kapoor, 2008; Juma'h and Pacheco, 2008; Ahmed and Javid, 2008; Ramli, 2010; Mehrani et al., 2011; Al-Shabibi and Ramesh, 2011; Hashemi and Zadeh, 2012; Appannan and Sim, 2011). In addition to these factors, researchers have also identified board size, board composition, board independence, board gender, ownership concentration, outside directors, audit type, CEO power, institutional

ownership, investor protection, and shareholder rights as the key determinants of dividend policy under the umbrella of corporate governance (Adjaoud and Ben-Amar, 2010; Abor & Fiador, 2013; Setia-Atmaja, 2010; Erol and Tirtiroglu, 2011; Al-Shabibi and Ramesh, 2011; La Porta et al., 2000).

Economic policy uncertainty (EPU hereafter) and dividend decision have never been simpatico in literature. As soon as uncertainty emerges, firm's decision of dividend disappears. Initially, it was observed that firms which were already paying dividends, terminated it and those not paying any dividends previously, withdrew any initiation decision (Huang et al., 2015). Problem pertaining to this shift is long term, where lack of stability and sustainability of dividends in the time of EPU disappoints people in the market about firm and stakeholders get bad vibes about the future of that company (Attig et al., 2018). Hence, creating a bad image for the firm that will stay for longer than that EPU (Nagar et al., 2019). According to expectancy theory (Vroom, 1964), people behave in a specific way because they get motivated to select one specific behavior over the others due to the built expectations from that selected outcome. Explaining theoretical implications here, if investors will get news of dividend termination or no initiation from a firm in the market, they will refrain in the future even from investing into that firm.

It is imperative to explore the interesting phenomenon of how financial expertise on board (Henceforth BFE) and financial knowledge of the members of the board transforms decision regarding dividends in the time of policy uncertainties. EPU may appear as cause of financial distress in countries related to performance of firms in that economy along financial decision taken by the country in general (Degiannakis & Filis, 2019). Therefore, it is required to take strength of its argument from the provided facts and explores if EPU can affect the most critical decision of the firm (Baker et al., 2016) named as "dividend decision." The current study, therefore, constructs models that are based on dividend initiation (di) and dividend termination (dt) dummy. Introducing BFE as a moderating variable between EPU and dividend decision opens new gates into theoretical literature on dividend puzzles.

EPU stresses a raise in already existing puzzling nature of equity premium and creates uncertainty (Lei et al., 2015). Uncertainty can be classified into two types, firm-specific source of uncertainty and non-firm-specific uncertainty. EPU is one form of non-firm-specific uncertainty occurring due to policy-related or regulation-related shocks and other factors outside control of a firm (external factors). Examples of such external factors include some terrorist attack or a black-market open player, making EPU unavoidable to hedge.

1.1 | Context and background

There is a need to explore and investigate predicted model by using an objective approach. Dividend decision has been disintegrated into dividend initiation (Henceforth D_i) and dividend termination (Henceforth D_t). Profiling for concerned years EPU data for China provides empirical evidence on the raised research question. Hence, one

thing hard to predict is either EPU will lead to D_i or D_t of already running dividend. Critical role is played by investigating this relationship for BFE. The suggestion of BFE as a missing variable is a novel evidence, presented in the current work, that facilitates explanation about firm's ideology for dividend design specifically in the period of uncertainty so that investors are well versed to aim expectations. It can be clearly seen from the results that firms with more weightage of BFE focus on dividend patterns to be more sustainable, attracting more investors, and repute themselves as the safe investment firm. Results are strongly in line with expectancy theory, suggesting that even in the time of uncertainty, few firms with high BFE will initiate dividend in expectation for high firm value in the market but firms terminating dividend in times of EPU will give low expectations to the investor. It is suggested that firms expecting to earn more of a good will and a powerful image creation in to the stock market will think about this long-term investment, and, with the support of the top management, the practice will be announcing dividends even when exposed to EPU.

1.2 | Plan of study

Current study aims at exploring the impact of economic policy uncertainty on dividend decision. As a huge gap was found regarding dividend paying behavior in the situations of uncertainty. Current study plans to explore how firms in China will behave at the time of EPU. Additionally, study also aims at empirically exploring moderating role of board financial expertise on the relationship between economic policy uncertainty and dividend decision.

1.3 | Rationale of study

Huge literature on dividend policy exists but not sufficient knowledge available on influence of uncertainty due to government policies or practices or regulations on the dividend payout policy. Arguably, reason behind this can be daunting challenge of EPU measurement (Gulen & Ion, 2016). Current research, however, adds into dividend payout policy and EPU literature by using Baker et al. (2016) index to measure EPU and introducing board financial (BFE) expertise as a moderating variable. Surprisingly BFE has never been tested in the past for its role play between EPU and dividend payout decision.

1.4 | Significance

Study is an effort to analyze effect of EPU on dividend decision (d_t/d_i) with moderating role of board financial expertise. Study is motivated due to four major reasons. *Firstly*, EPU might change perception of a top management regarding a business environment with stability (Brav et al., 2005). As narrated by the literature, policy uncertainty cumulatively influences real market economy of a country, ultimately impacting growth of a firm and its future earnings prospects. Baker

et al. (2016), demonstrated that EPU leads to weaker economy and recovery might takes long time. Hence, management needs to decrease spending, investments, and hiring, as a manager forecasts a rise in hypothesized cost of available external financing it leads firm to select a more conservative form of dividend paying policy to fulfil criteria of “saving for the rainy days.”

Secondly, EPU might raise investor's risk perception because a surge in managers perceived risk can lead to dividend sustainability in two ways. First, rising investor risk perception can lead toward high firm's cost of capital (Huang et al., 2015). Second, EPU can cause increased risk perception of manager as risk of cash flow related to policy uncertainty increases (Berkman et al., 2011). Therefore, firms regulate respective dividend policies to get aligned with expected earnings of future (Benito & Young, 2003).

Thirdly, a plethora of literature is available on EPU providing researchers to investigate its effect on policies of firms (Drobetz et al., 2018). In compliance with Barrero et al., (2017), EPU is related to uncertainty in long run. Thus, it is important to analyze impact of EPU on dividend policy of the firm.

Fourthly, regardless of uncertainties due to firm-specific indicators, technology innovation, and uncertainties of environment (Parnell et al., 2015), EPU is the result of government regulations, practices, and policies outside the control of manager like attack by terrorists and commodity shocks, making EPU hard to defend. Nevertheless, EPU relates to uncertainties that are event driven like financial and political crisis; it comprises of policy uncertainty rather than the time-frame zone for event-driven uncertainty (Baker et al., 2016). Hence, it is important to measure mechanism of EPU effecting dividend decision as EPU has always been varying with time (Baker et al., 2016), leading to increase in risk perception of an investors and, therefore, effects investor demand for dividend.

Current study provides following contributions to existing literature: (1) study analyses role of BFE on dividend decision during uncertainty period adding both into BFE and policy uncertainty literature, (2) novel idea of introducing dividend policy literature along BFE during EPU, and (3) to link BFE role on dividend sustainability during EPU to enhance firm value. Hence, results suggest that BFE can be an important signal for keen market participants in deciding future decision dimensions of a firm.

Rest of the paper is structured as follow. Section 2 discusses the literature review. Section 3 discusses the empirical strategy and modeling. Section 4 discusses the data description and research methodology. Section 5 includes the empirical findings and finally brief conclusion.

2 | LITERATURE REVIEW

The purpose of this study is to investigate moderating role of BFE on dividend decision during EPU. Financial expertise is an important factor associated with board efficacy (Agrawal & Chadha, 2005; Karamanou & Vafeas, 2005). BFE helps in audit control implementation in a firm; it also improves monitoring role performance and

providing advice to prevent shareholder interest as well (Qiao et al., 2018). Recent strand of emerging literature in developed countries provided the evidence that other than improving financial reporting quality of a firm, BFE can help in better corporate policies application like hedging, taxation, dividend, borrowing, and compensation improving performance (Dionne & Triki, 2005; Guner et al., 2008; Sarwar et al., 2018).

As the previous literature has not discussed an important moderating variable that is a board's financial expertise, current study fills this gap. Also, study by Tran (2020) discusses dividends policy that cannot be generalized nonbanking firms. Current study uses a more balanced set of data. Current research was an extension of study conducted by Sarwar et al (2020) to explore the difference in the presence of a more financially expert board and their way of looking into the dividend matters at the time of EPU.

It has been reported that, China, although, has corporate governance policy but policies regarding composition of board and its financial expertise have not been clearly defined. Regardless of the fact that, having financial expertise on board delineates board efficiency, this core competency goal has been ignored. Hence, it remains a gray-shaded area that how board financial expertise will affect relationship between EPU and dividend decision. Also, study pertains to managerial implications regarding devising board financial expertise policies for betterment of market. As argued by Sarwar et al., (2020) for improving corporate governance of a firm, it is critical to have at least one financial expert on board who can better off with market synchronized decision-making to benefit the firm. That paper also argued, even at the time of economic policy uncertainty, a financial expert can exactly shape a decision to remain efficient in earning as well as to sustain market position in front of existing as well as prospective investors. Hence, current study will endeavor in exploring the actual role of having a financially expert panel on relationship between EPU and dividend sustainability.

Romance of puzzling phenomenon of dividend has long captured the attention of researchers, academicians, and practitioners. Finance theory has always framed dividend policy dynamics as a positive prospect for shareholder (Black, 1976). Research continued in the area with no conclusions and leaving dividend phenomenon as an enigma. Dividend paradigm gains its importance from the phenomenon of expectancy theory (Vroom, 1964). Investor proclaims its attachment with a firm relying on this expectation of earnings. Most important antecedent of dividend is future and its unpredictability. Future uncertainty has real repercussions for behavior of market agents (Bernanke, 1983; Bloom, 2009; Bloom et al., 2007). State policymakers might add second layer of uncertainty including fiscal, monetary policy, or regulations termed as economic policy uncertainty (EPU) (Figure 1). The ambiguity of an economic policy makes it very difficult to diversify. Hence, uncertainty relevant to economic policy of governments may impact financial markets in general and firm's decisions specifically. Literature has long been inconclusive over the fact that changes in firms operating environment may hit decision made by the firm (Andreou et al., 2017).

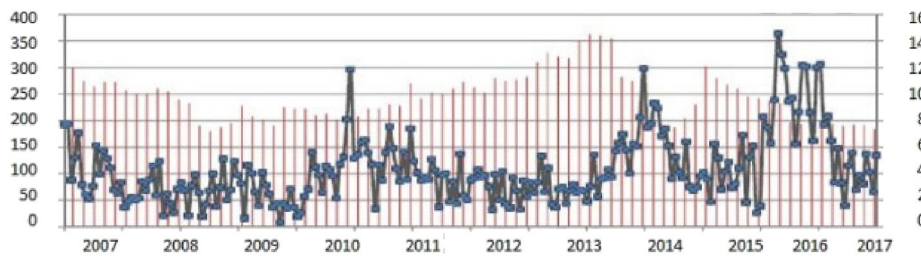


FIGURE 1 Behavior of EPU during 2007–2017 in China

Emerging literature has been arguing that policy change is one occupying factor that can shape any decision made by the top management (Wang et al., 2014). Besides extant literature in this field and plenty of knowledge, a soft spot remained. Nobody discussed the question that how changes in an economic policy or the uncertainty in EPU can dress the dividend decision of the firm. Previously, literature reported that if firms in a country are experiencing uncertainty in the environment, they are inclined to announce dividend and prefer to stay silent on any major decision that might lead to a fatal situation (Brav et al., 2008). It has been described in the studies (Floyd et al., 2015) that dividend payer firms might terminate dividends and wait for the uncertainty to move out of the zone. Here, one important aspect which never got attention of researcher in the past was this reaction of EPU toward dividend policy. Turning point for above mentioned situation came from the fact that people who are making this above-mentioned decision (to initiate or to terminate dividend) might transform shape of the relationship. Technically, thought provo king aspect of the study is to extend the effect of BFE literature. Current study argues that while reporting the relationship between EPU and dividend, BFE can make a difference. Implying that, a change in BFE can change the D_i and D_t decisions.

Above conceptual frame work can be supported by evidence coming from Vroom (1964). He presumed that individual will act or behave in a specific way since they tend to get motivated toward selection of a specific behavior over some other behaviors because of what they expect as a result of selected behavior. Uncertainty is the mean through with political and economic factors affect markets (Huang et al., 2015).

At times of political instability uncertainties coming along, changes in governments and their policies increase keenness of the investor into risk affairs in financial markets leading to effect on dividend payout decision of the firms. *Firstly*, because higher risk is associated with higher equity premium being demanded, Pecking order theory (Myers & Majluf, 1984), and making firm to announce lesser dividends in such time. *Secondly*, manager in such times seeks to retain cash for bad times and avoid any external financing cost as well making shareholder unhappy as he thinks he is not being taken care of. Hence, at times of policy uncertainty, fund managers are more likely to terminate dividends and less likely to initiate dividends (Wang et al., 2014), keeping all other things constant. Although, it is well understood by those managers that shareholder senses the uncertainty becoming more sensitive toward protection of their investment as explained by agency theory (Eisenhardt, 1989).

At that time, they will grab for only those firms offering dividends, that is, initiating more and terminating less. As shareholder believes in the story

moral that it is better to have one in hand than two in bush. Revealing that, when EPU increases, there is very low chance that any nonpayer firm will get to initiate dividends and even a tax payer might go into no dividend zone.

H1. *EPU has a negative relationship with D_i .*

H2. *EPU has a positive relationship with D_t .*

BFE has been shown to have a strong relationship with dividend payout decision (Qiao et al., 2018; Sarwar et al., 2018). Literature argued in the past that dividend payout decision is effected by agency problem forcing shareholder to think that his best interest is not being met. Issue that has always been a part and parcel of this relationship is that a manger always wants to retain what investor wants to achieve as dividend (Rozeff, 1982). Reason behind is, manager prefers to retain that cash in firm to reduce external financing cost to be borne by firm and thus declining dividend payment. Hence, ignoring rule of shareholder wealth maximization resulting into an annoyed shareholder who might take his investment out of the firm. Now, current study proposes that if a firm is having financial experts in the board, they combat the agency conflict by reducing risky investments by the manager and more handsome dividends even at the time of EPU. This argument supports our hypothesis that:

H3. *Having a board with more financial expertise moderates the relationship between EPU and dividend payout.*

Current study explores effect of economic policy uncertainty on dividend policy with a moderating role of BFE in emerging market of China. Policies in China are more of an indicator for specifying an ideal, exclusive, and better-performing market setting to measure role of EPU on dividend policy. Context of choosing Chinese firms data comes from two major reason. *Firstly*, China stands second largest economy that is still acting as transition economy, moving away from a centrally planned economy toward more of a market-based economy. While moving in this transition phase, Chinese government faces economic policy problems unceasingly (Chen et al., 2017). *Secondly*, China with its emerging market trend is a lever for central government to encourage economic growth through smoothing transition of economy. Post financial crisis 2008 and euro-debt crisis, huge rise in economic policy uncertainty was seen in China (Yin et al., 2017). Hence, with the policy uncertainty hype, China security regulatory commission (CSRC) developed many new regulations like SOE share reforms, IPO periodic closure, semi-mandatory dividend policy, and reopening reforms,

to facilitate share-holders interest and to handle market that was unstable due to that wave of uncertainty in economy. Hence, it stands critical to consider and measure effect of EPU on dividend decision with moderating role of BFE of Chinese firms to generalize the outcomes for emerging and developed economies both.

3 | EMPIRICAL STRATEGY AND MODELING

3.1 | BFE, EPU, and dividend payout

To econometrically analyze the impact of BFE on dividend sustainability during EPU, we use two models that are based on dividend initiation (di) and dividend termination (dt) dummy. We employ the following logit models (Equations (1) and (2)) to access the effect of explanatory variables on the probability of terminating the dividend by dividend payers, and probability of initiating the dividend by nondividend payers during period of uncertainty.

$$dt = \beta_1 EPU * FE + \beta_2 dta + \beta_3 rete + \beta_4 roa + \beta_5 mv + \beta_6 cash + \beta_7 std + \varepsilon_t, \quad (1)$$

$$di = \beta_1 EPU * FE + \beta_2 dta + \beta_3 rete + \beta_4 roa + \beta_5 mv + \beta_6 cash + \beta_7 std + \varepsilon_t. \quad (2)$$

Suppose, Y is a dividend decision binary response variable as ($Y \in \{dt, di\}$), Q represents the BFE during period of EPU, and M is a vector variable which contains characteristics of firms, industry-level fixed effect, and a constant. The Logit regression model for dividend termination decision takes the following form that assumes the likelihood of terminating dividend:

$$P(dt = 1) = \frac{\text{Exp}(\alpha Q + M\beta)}{1 + \text{Exp}(\alpha Q + M\beta)}. \quad (3)$$

Similarly, likelihood of initiating dividend decision takes the following form:

$$P(di = 1) = \frac{\text{Exp}(\alpha Q + M\beta)}{1 + \text{Exp}(\alpha Q + M\beta)}. \quad (4)$$

In Equation (3), $\text{Exp}(\cdot)$ is exponential absolute wherein coefficient estimates are α and β . Chances of firms to terminate dividend is the ratio of probability of firms to terminate dividend ($P[D_t = 1]$) to the probability of dividend paying firms ($1 - P[D_t = 1]$). Analogously in Equation (4), chances of firms to initiate dividend are the ratio of probability of firms to initiate dividend ($P[D_i = 1]$) to the probability of nondividend paying firms ($1 - P[D_i = 1]$). In present study, we control for the firm characteristics that affect dividend payout that includes asset growth (dta), return on assets (ROA), retained earnings (RE), cash holdings (Cash), market value (MV), and firm risk (standard deviation of monthly stock return).

3.2 | BFE, EPU, and dividend payout under different control governance variables

To check the robustness of our results, we further estimate the role of BFE on dividend sustainability during EPU with the inclusion of additional control variables. We include the corporate governance and CEO-related control variables in motivation to previous literature that examines dividend decisions are effected by corporate governance and CEO characteristics (Abor & Fiador, 2013; Xiao et al., 2019). We further examine the corporate governance significance by augmenting our main regression equation with additional control variables (board size, board independence, CEO-duality) and by retaining explanatory variables in our main regression equation.

3.3 | Firm value and dividend sustainability during uncertainty period

The study further estimates the relationship between dividend initiation (Di) and dividend termination (Dt) decision on firm value (Tobin Q) during the period of uncertainty (EPU). Firms are sticky in making dividend payments as they are typically grudging to reduce dividend; in particular, they are reluctant to avoid even when firms have negative earnings. The role of BFE and dividend payments is to reduce agency conflict (Sarwar et al., 2018); therefore significant association is predicted between dividend payment during period of uncertainty and firm value, as the dividend payment enhances firms' value (Gordon, 1963; Xiao et al., 2019), and the reduction of dividend payment reduces firm value (Nippel, 2008).

4 | RESEARCH METHODOLOGY

4.1 | Data

The ongoing study focuses on nonfinancial listed firms from an emerging economy of China. Sample consists of 517 Chinese firms listed on Shenzhen and Shanghai Stock Exchanges. The study period is from year 2007 to 2015. We merge firm-level data with EPU index advanced by Baker et al. (2016). Availability of director's profile limits our sample data to 517 nonfinancial listed firms. We collected Chinese firm-level data from China Stock Market & Accounting Research (CSMAR) database. To overcome the outliers influence, we winsorize firm-level variables at first and 99th percentiles.

4.2 | Variables

Study's empirical tests have number of variables that are introduced under this subsection. Variables detail is summarized in Appendix. Dependent variable of this study is dividend initiation and dividend termination decision variable. Existing studies on dividend have documented a general time trend, wherein dividend has declined over a

time in recent decades (Fama & French, 2001). Omitted time trend may lead to measurement error, if the time trend is not properly addressed in level of dividend policy as it may contain time-trend. Our data sample covers 3539 firm-year observations from year 2007 to 2015. These facts may lead to issues while estimating dynamic changes in dividend payout policy in response to EPU. While considering these concerns, current study emphasizes on the changes in dividend policy rather than changes in EPU itself. Therefore, instead of dividend payout, our main variable of interest is dynamic changes in dividend payout policy: D_i (dividend initiation dummy variable) and D_t (dividend termination dummy variable). More precisely, d_i is define as follow. We first categorize study sample as dividend payers and nondividend payers. We define d_i for firms that have not paid dividend in any of the past 3 years and categorized as past nonpayers. If the dividend past nonpayers start paying dividend in current year, assign a value of 1 to d_i (dividend initiation dummy), else 0. Similarly, define d_t for firms that have paid dividend in all of the past 3 years and categorized as past payers. If the past dividend payers stop paying dividend in current year, assign a value of 1 to d_t (dividend termination dummy), else 0. Study's main explanatory variables are EPU (economic policy uncertainty) and $EPU*BFE$ (economic policy uncertainty* board financial expertise). We also control for number of control variables by following extant literature by (Fama & French, 2001; Chay & Suh, 2009), to examine the impact of BFE on firms' dividend sustainability during period of EPU. Study's primary regression control for

firm characteristics includes asset growth, firm size, retained earnings, return on assets, cash holdings, and stock return volatility. Study further analyzes the moderating role of BFE during period of uncertainty on dividend sustainability by using board additional control variables as board size, board independence, and CEO duality and also how the dividend sustainability affects firm value during period of uncertainty.

Study measures board financial expertise (BFE) by considering extent of financial expertise a corporate board holds. According to SOX of 2002 and section 407, financial expert is defined as one having experience and expertise in finance or accounting or supervisory skills along financial responsibilities. Different scholars used SOX definition to elaborate financial expertise (DeFond et al., 2005; Krishnan and Visvanathan, 2008). Current study identifies financial expert as one with degree in economics, accounts, and finance or having work experience as an accountant, chief financial officer, financial advisor, auditor, finance manager, or a financial analyst in a financial or non-financial company. For Chinese companies, data for financial expertise on corporate board are collected from CSMAR database, along educational background and the work experience.

4.3 | Empirical findings

Table 1 reports key statistics of study variables. Panel A summarizes the number of firm-year observations, mean, standard deviation,

TABLE 1 Statistical analysis of study data

Panel A: Univariate analysis									
	No of Obs	Mean	Median	Std.dev	Minimum	Maximum			
Dt	2665	0.013	0	0.12	0	1			
Di	873	0.69	1	0.46	0	1			
EPU	3538	157.3	136.57	83.78	73.12	304.22			
BFE	3538	0.35	0.36	0.26	0	1			
Dta	3538	0.04	0.02	0.51	−0.68	0.46			
Roa	3538	4.42	3.3	6.72	−9.96	48.96			
Re	3538	0.16	0.23	0.74	−6.9	9.83			
Mv	3538	22.72	22.64	1.29	12.36	29.56			
Cash	3538	1.4	0.82	2.09	−0.5	40.72			
Sd	3538	0.15	0.13	0.12	0.02	2.77			
Panel B: Correlation matrix									
	Dt	Di	EPU*FE	Dta	Re	Roa	MV	Cash	Sd
Dt	1.000								
Di		1.000							
EPU*BFE	−0.101	0.150	1.000						
Dta	−0.117	0.089	−0.025	1.000					
RE	−0.145	0.154	−0.016	0.050	1.000				
ROA	−0.081	0.069	−0.012	0.008	−0.014	1.000			
MV	−0.073	0.040	−0.035	−0.030	0.087	0.110	1.000		
Cash	−0.015	0.143	−0.003	0.031	0.010	0.107	0.124	1.000	
Sd	0.046	−0.065	−0.013	−0.001	−0.019	0.025	−0.104	−0.019	1.000

TABLE 2 Economic policy uncertainty and dividend pay-out decisions

Variables	Dividend decisions	
	Dt	Di
EPU	0.008*** (0.002)	−0.004** (0.001)
Dta	−3.64*** (0.64)	2.289* (1.26)
Rete	−0.630*** (0.135)	0.639** (0.297)
Roa	−0.149*** (0.037)	0.019 (0.019)
Mv	−0.082 (0.124)	0.06 (0.156)
Cash	−0.009 (0.126)	0.360*** (0.124)
Sd	1.351** (0.657)	−4.455** (1.792)
No of obs	2386	868
Pseudo R2	0.078	0.065

Note: This table presents logit regression results of the dividend termination decision and dividend initiation decision for Chinese firms over the period from year 2007 to 2015. Here, dt is the dividend termination dummy, di is the dividend initiation dummy, EPU is economic policy uncertainty index, dta is the growth rate of assets, rete is retained earnings-to-total equity ratio, roa is return on assets, mv is firm size, cash is cash holdings, and std is stock return volatility. Detailed variable definitions are given in Appendix. S.deviation is given in parentheses. ***, **, and * next to coefficients indicate that coefficients are significantly different from zero at the 1, 5, and 10% confidence levels, respectively.

minimum, and maximum value for each variable. First two rows confirm the rarity of dramatic changes in dividend policy and reports firms follow sticky pattern of dividend payments. Such as, dt mean is 0.013, which shows out of past-payers sample, 2665 firm-year observations, and only 1.3% firm has terminated dividend. For the past nonpayer's sample, 873 firm-year observation, di mean is 0.69 means, 69% has initiated dividend.

Panel B reports correlation matrix for study main variables. Dt is negatively related to EPU*FE, and Di is positively related to EPU*FE. As the Pearson correlation between EPU*FE and dt is −0.101 and between EPU*FE and di is 0.150. Panel B reports preliminary view of relationship between EPU and dividend policy, and, in next section, a relationship is address in the context of multivariate regression context.

4.4 | Economic policy uncertainty and dividend pay-out decisions

We employ the logit regression model for investigating dividend termination and dividend initiation decision during EPU, and results are

TABLE 3 Role of board financial expertise on dividend payout decisions during period of economic policy uncertainty

Variables	Dividend decisions	
	Dt	Di
BFE*EPU	−0.094*** (0.019)	0.010*** (0.003)
Dta	−5.179*** (0.861)	2.90** (1.340)
Rete	−0.553*** (0.144)	0.735** (0.332)
Roa	−0.147*** (0.038)	0.021 (0.020)
Mv	−0.256* (0.147)	0.318** (0.125)
Cash	−0.072 (0.164)	0.318** (0.125)
Sd	1.277** (0.65)	−3.84** (1.80)
No of obs	2386	868
Pseudo R2	0.032	0.056

Note: S.deviation is given in parentheses. ***, **, and * next to coefficients indicate that coefficients are significantly different from zero at the 1, 5, and 10% confidence levels, respectively.

reported in Table 2. Study first examines the impact of EPU on dividend termination decision, and result shows that EPU is significantly positively related with dividend termination decision, while it has negative relation with dividend initiation decision. The value of coefficient of EPU is 0.008 (significant at 1% level), and it indicates that past dividend payers are terminating dividend payouts by approximately 72% ($= [\exp [0.008 \times 83.78] - 1] \times 100\%$) in response of one standard deviation increase in EPU. Our results indicate that past dividend payers are more likely to terminate dividend during period of high economic policy uncertainty. The result shows that EPU has statistical significant negative impact on dividend initiation with a coefficient of 0.004 (highly significant at 1% level). Our result indicates that a past nonpayer decreases the dividend initiation by approximately 26% ($= [\exp [(-0.004) \times 83.78] - 1] \times 100\%$) in response of one standard deviation increase in EPU. Thus finding indicates that past nondividend payers are less likely to initiate dividend during period of policy uncertainty.

In addition to analyzing the impact of EPU on dividend pay-out policy decisions, we also control for other firm characteristics that are commonly used in extant literature, for example, (Fama & French, 2001). Result shows firms that are mature (measured as rete), profitable (measured as ROA), high asset growth (measured as dta), and cash holdings (measured as cash) are more likely to initiate during period of high EPU and less like to terminate dividend. Firm-level uncertainty (measured as std of monthly stock return) is positively and significantly related to dividend termination decision and negatively related to dividend initiation.

TABLE 4 Board financial expertise, dividend payout decisions during period of economic policy uncertainty with additional control variables

Variables	Model 1		Model 2		Model 3	
	Dt	Di	Dt	Di	Dt	Di
BFE*EPU	−0.100*** (0.020)	0.017*** (0.003)	−0.094*** (0.02)	0.018*** (0.003)	−0.010*** (0.021)	0.017*** (0.003)
Dta	−5.14*** (0.960)	2.640** (1.285)	−5.203*** (0.855)	2.89** (1.285)	−5.170*** (0.963)	2.64** (1.285)
Rete	−0.698*** (0.164)	0.627* (0.337)	−0.545*** (0.145)	0.702* (0.337)	−0.692*** (0.165)	0.618* (0.337)
Roa	−0.148*** (0.040)	0.023 (0.020)	−0.150*** (0.037)	0.023 (0.020)	−0.150 (0.040)	0.023 (0.020)
Mv	−0.130 (0.155)	0.223 (0.172)	−0.261* (0.150)	0.220 (0.172)	−0.131 (0.157)	0.226 (0.172)
Cash	−0.053 (0.150)	0.312** (0.127)	−0.079 (0.170)	0.314** (0.127)	−0.054 (0.158)	0.310** (0.127)
Sd	0.510 (0.747)	−4.197** (1.85)	1.282** (0.653)	−4.02** (1.85)	0.519 (0.755)	−4.25** (1.85)
Bs	−0.284*** (0.064)	0.153*** (0.039)			−0.277*** (0.065)	0.146*** (0.41)
Bi	−0.065** (0.022)	0.051** (0.017)			−0.066** (0.023)	0.050** (0.017)
Ceo-duality			0.634 (0.470)	0.619** (0.317)	0.347 (0.484)	0.2012** (0.535)
No of obs	2386	599	2386	599	2386	599
Pseudo R2	0.032	0.012	0.054	0.052	0.125	0.054

Note: S.deviation is given in parentheses. ***, **, and * next to coefficients indicate that coefficients are significantly different from zero at the 1, 5, and 10% confidence levels, respectively.

4.5 | Moderating role of board financial expertise on dividend sustainability during period of EPU

To investigate the role of BFE on dividend sustainability during period of EPU, we employ the logit regression model for investigating how BFE affects dividend termination and dividend initiation decision during EPU, and results are reported in Table 3. Result shows the moderating role of BFE on firm dividend sustainability during period of EPU that confirms the role of BFE on dividend sustainability during period of EPU, as EPU*FE is significantly negatively related with dividend termination decision while it has positive relation with dividend initiation decision. That confirms past dividend payers having more financial expertise on board terminating dividend payouts by approximately 0.02% (= [exp (−0.09*83.78) − 1]*100%) in response of one standard deviation increase. Thus our results indicate that past dividend payers with more financial expertise on board are less likely to terminate dividend during period of uncertainty. Moreover, Table 3 reports positive relationship between Di and EPU*FE. The coefficient is 0.010 at 1% level of significance. It indicates that past nondividend payers are initiating dividend payouts by approximately 85% (= [exp (0.01*83.78) − 1]*100%) in response of one standard deviation increase. Our results indicate that past nondividend payers with more BFE are more likely to initiate dividend during period of uncertainty. Thus finding indicates that past nondividend payers having BFE are more likely to initiate dividend during period of policy uncertainty.

Further Table 4 reports the moderating role of BFE on dividend sustainability during EPU with the inclusion of additional control variables that confirms the robustness of study main findings (Xiao et al., 2019).

TABLE 5 : Dividend sustainability and firm value during EPU

Variables	TobinQ	
	Model 1	Model 2
Dt*EPU	−0.002** (0.001)	
Di*EPU		0.001** (0.007)
Dta	0.012 (0.12)	0.006 (0.05)
MS	−0.314** (0.037)	0.012* (0.069)
MTB	−0.081* (0.017)	−0.016 (0.036)
LEV	0.040 (−0.025)	0.060* (0.05)
CEPS	0.099 (0.017)	0.020* (0.025)
No of Obs	2665	873
R2	0.35	0.25

Note: S.deviation is given in parentheses. ***, **, and * next to coefficients indicate that coefficients are significantly different from zero at the 1, 5, and 10% confidence levels, respectively.

4.6 | Firm value and dividend sustainability during uncertainty period

Table 5 reports regression estimates for the relationship between dividend initiation (Di) and dividend termination (Dt) decision on firm value (Tobin Q) during period of EPU. Overall, results provide support on the role of dividend payout on firm value during uncertainty period.

This work compliments the study of Huang et al. (2015), reported, firms cut dividend payments during period of uncertainty because of increased cost of external financing or financing constraints. In present study, we confirm that firms with financial expertise on board initiate dividend payments during uncertainty period that in turn enhances firm value, and Dt decision in turn reduces firm value.

5 | CONCLUSION

In this paper, empirical investigation of moderating role of board financial expertise on dividend sustainability during the period of economic policy uncertainty is done. Through use of 517 nonfinancial Chinese firms from the year 2007 to 2015, study stands evident that presence of more financial expertise on board during period of EPU helps firms to sustain dividend. That confirms, past dividend payers/nonpayers with more financial expertise on board are less/more likely to terminate/initiate dividend during period of EPU. Some additional corporate governance and CEO-level variables also vigorously affecting the moderating role of board financial expertise on dividend sustainability during uncertainty. Further, during the period of EPU, Di/Dt decision in turn significantly affects firm value.

This is the first study that investigates the moderating role of board financial expertise on firms' dividend sustainability during period of EPU. Therefore, this study also provides important implication for policymakers. To mitigate the negative (positive) effect of EPU on dividend initiation (dividend termination), policymakers need to maintain the level of board financial expertise that understands the firms financial conditions, that in turn affect firm policies. Further, this study provides new insights into dividend policy literature by documenting the moderating effect of board financial expertise on dividend sustainability during EPU that is in addition to the study of Sarwar et al. (2018) that confirms the presence of financial expertise on board effects the firm dividend policy. The future studies should also compare the result of emerging firms with the firms of developed markets to evaluate the influence of role of board financial expertise on dividend sustainability during period of EPU. Researchers can also limit the financial expertise to CEOs, with an audit committee only, and investigate the influence of their financial expertise on the variation in firm financial activities during period of uncertainty.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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APPENDIX

Study variables		
Acronym	Variables	Explanation
EPU	Economic policy uncertainty	Economic Policy Uncertainty Index based on Baker et al. (2013) measure.
EPU*BFE	Board financial expertise during period of EPU	Interaction term between EPU * EPU
Dt	Dividend termination	Dividend past payers for t, t-1, and t-2 stop paying dividend in current year, assign a value of 1 else 0.
Di	Dividend initiation	Dividend past nonpayers for t, t-1, and t-2 start paying dividend in current year, assign a value of 1 else 0.
q	Tobin's q	Market value plus the book value of total debt divided by book value of total assets
D _{ta}	Growth rate of assets	Total assets growth rate
MV	Firm size	Natural log of market capitalization
Rete	Life cycle	Retained earnings to total equity ratio
ROA	Return on assets	Operating income scaled by total assets
Cash	Cash holdings	Cash and cash equivalent scaled by total assets
Std	Stock return volatility	Standard deviation of monthly stock return for the previous 2 years
BS	Board size	Number of directors on board
BI	Board independence	Proportion of independent directors on board
CEOD	CEO duality	Dummy variable 1, if same person is CEO and board chairman, zero otherwise.

This table provides detailed definition of variables used in the empirical analysis.