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

Abstract

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 initiated 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 com- position, 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). The 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 stake- holders 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 transform decision regarding dividends in the time of policy uncertainties. EPU may appear as a cause of financial distress in countries related to the 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 sources 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 models 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 pro- vides empirical evidence on the raised research question. Hence, one

The hardest thing to predict is that either EPU will lead to D_i or D_t of already running dividend. A critical role is played by investigating this relationship for the BFE. The suggestion of BFE as a missing variable is 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 into 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

The current study aims to explore the impact of economic policy uncertainty on dividend decisions. 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, the 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. Studying 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 a weaker economy and recovery might take 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 managers 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 the long run. Thus, it is important to analyze the impact of EPU on dividend policy of the firm.

Fourthly, regardless of uncertainties due to firm-specific indica- tors, 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 the mechanism of EPU effecting dividend decisions 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.

The current study provides the 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.

The rest of the paper is structured as follows. 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 a 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 fac- tor 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, a study by Tran (2020) discusses dividends policy that cannot be generalized for nonbanking firms. Current study uses a more balanced set of data. Current research was an extension of study con- ducted 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. Although 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 the relationship between EPU and dividend decision. Also, the 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 be 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, the current study will endeavor in exploring the actual role of having a financially expert panel on the 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 a 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 firm operating environment may hit decision made by the firm (Andreou et al., 2017).

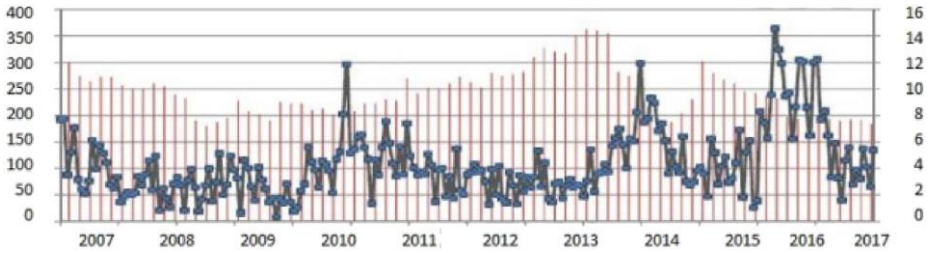

FIGURE 1 Behavior of EPU during 2007–2017 in China

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 the attention of researchers in the past was this reaction of EPU toward dividend policy. The 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 provoking aspect of the study is to extend the effect of BFE literature. The 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.

The above conceptual framework can be supported by evidence coming from Vroom (1964). He presumed that individuals would 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 announce lesser dividends in such time. *Secondly*, managers at such times seek to retain cash for bad times and avoid any external financing cost as well, making shareholders 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 shareholders sense 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 taxpayer might go into a 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 decisions are effected by agency problems forcing shareholders to think that his best interest is not being met. An 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). The reason behind is manager prefers to retain that cash in the firm to reduce external financing cost to be borne by firm and thus declining dividend payment. Hence, ignoring the rule of shareholder wealth maximization resulting in 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 assess 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.

$$dt = \beta_1 EPU^{*} FE + \beta_2 dta + \beta_3 rete + \beta_4 roa + \beta_5 mv + \beta_6 cash + \beta_7 std + \varepsilon_t, \tag{1}$$

$$di = \beta_1 EPU^{*} FE + \beta_2 dta + \beta_3 rete + \beta_4 roa + \beta_5 mv + \beta_6 cash + \beta_7 std + \varepsilon_t. \tag{2}$$

Suppose, Y is a dividend decision binary response variable as (Yc $\{dt, di\}$), Q represents the BFE during the 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:

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

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

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

In Equation (3), Exp (.) is exponential absolute wherein coefficient estimates are α and β. Chances of firms to terminate dividend is the ratio of firms to terminate dividend (P [Dt =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 dividends; in particular, they are reluctant to avoid them 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 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 minorize 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 details are summarized in Appendix. The 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 the 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, the current study emphasizes 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, di is defined as follows. We first categorize study samples as dividend payers and nondividend payers. We defined di for firms that have not paid dividend in any of the past 3 years and categorized them as past nonpayers. If the dividend past nonpayers starts paying dividend in the current year, assign a value of 1 to di (dividend initiation dummy), else 0. Similarly, define dt for firms that have paid dividend in all 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 dt (dividend termination dummy), else 0. The study's main explanatory variables are EPU (eco- nomic policy uncertainty) and EPU*BFE (economic policy uncertainty* board financial expertise). We also control for number of controls variables by following extant literature by (Fama & French, 2001; Chay & Suh, 2009), to examine the impact of BFE on firms' dividend sustain- ability during period of EPU. Study's primary regression control for Firm characteristics include 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 additional control variables such as board size, board independence, and CEO duality and 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 2002 and section 407, financial experts are 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 experts 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

	Dividend decisions	
Variables	Dt	Di
EPU	0.008***	−0.004**
	(0.002)	(0.001)
Dta	−3.64***	2.289*
	(0.64)	(1.26)
Rete	−0.630***	0.639**
	(0.135)	(0.297)
Roa	−0.149***	0.019
	(0.037)	(0.019)
Mv	−0.082	0.06
	(0.124)	(0.156)
Cash	−0.009	0.360***
	(0.126)	(0.124)
Sd	1.351**	−4.455**
	(0.657)	(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 con- firm 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 divined. For the past nonpayer's sample, 873 firm-year observation, di mean is 0.69 means, 69% has initiated divined.

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 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 reported in Table 2. The study first examines the impact of EPU on dividend termination decisions, and results 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*83.78] − 1]*100%) in response to 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 a statistically 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]*83.78) − 1]*100%) in response of one standard deviation increase in EPU. Thus, findings indicate 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 3 Role of board financial expertise on dividend payout decisions during period of economic policy uncertainty

	Dividend decisions	
Variables	Dt	Di
BFE*EPU	−0.094***	0.010***
	(0.019)	(0.003)
Dta	−5.179***	2.90**
	(0.861)	(1.340)
Rete	−0.553***	0.735**
	(0.144)	(0.332)
Roa	−0.147***	0.021
	(0.038)	(0.020)
Mv	−0.256*	0.318**
	(0.147)	(0.125)
Cash	−0.072	0.318**
	(0.164)	(0.125)
Sd	1.277**	−3.84**
	(0.65)	(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.

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

	Model 1		Model 2		Model 3	
Variables	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 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, the finding indicates that past nondividend payers having BFE are more likely to initiate dividend during period of pol- icy uncertainty.

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

TABLE 5 : Dividend sustainability and firm value during EPU

	TobinQ	
Variables	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 the present study, we confirm that firms with financial expertise on board initiate dividend payments during uncertainty periods that in turn enhance 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 the EPU. Therefore, this study also provides important implications 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 firm's 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 results of emerging firms with the firms of developed markets to evaluate the influence 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 periods of uncertainty.

DATA AVAILABILITY STATEMENT

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

ORCID

Marria Hassan https://orcid.org/0000-0002-4413-0566

REFERENCES

Abor, J., & Fiador, V. (2013). Does corporate governance explain dividend policy in sub-Saharan Africa? *International Journal of Law and Manage- ment*, *55*(3), 201–225.

Adjaoud, F., & Ben-Amar, W. (2010). Corporate governance and dividend policy: shareholders' protection or expropriation? *Journal of Business Finance & Accounting*, *37*(5-6), 648–667.

Agrawal, A., & Chadha, S. (2005). Corporate governance and accounting scandals. *The Journal of Law and Economics*, *48*(2), 371–406.

Ahmed, H., & Javid, A. Y. (2008). Dynamics and determinants of dividend policy in Pakistan (evidence from Karachi stock exchange non-financial listed firms).

Al Shabibi, B. K., & Ramesh, G. (2011). An empirical study on the determi- nants of dividend policy in the UK. *International Research Journal of Finance and Economics*, *80*(12), 105–124.

Al-Malkawi, H. A. N. (2007). Determinants of corporate dividend policy in Jordan: an application of the Tobit model. *Journal of Economic and Administrative Sciences*.

Andreou, P. C., Karasamani, I., Louca, C., & Ehrlich, D. (2017). The impact of managerial ability on crisis-period corporate investment. *Journal of Business Research*, *79*, 107–122.

Anil, K., & Kapoor, S. (2008). Relevance of signaling and smoothing approaches to dividend: A study of Indian IT sector. *Asia Pacific Busi- ness Review*, *4*(4), 104–123.

Appannan, S., & Sim, L. W. (2011). A study on leading determinants of divi- dend policy in malaysia listed companies for food industry under con- sumer product sector. Paper presented at: 2nd International Conference on Business and Economic. 946–976

Attig, N., El Ghoul, S., Guedhami, O., & Zheng, X. (2018). Dividends and Economic Policy Uncertainty: International Evidence. Available at SSRN 3295228.

Baker, S., Bloom, N., & Davis, S. (2013). Measuring economic policy uncertainty. Stanford University and University of Chicago Booth School of Business.

Baker, S. R., Bloom, N., & Davis, S. J. (2016). Measuring economic policy uncer- tainty. *The Quarterly Journal of Economics*, *131*(4), 1593–1636.

Barrero, J. M., Bloom, N., & Wright, I. (2017). Short and long run uncer- tainty (No. w23676). National Bureau of Economic Research.

Benito, A., & Young, G. (2003). Hard times or great expectations? Dividend omissions and dividend cuts by UK firms. *Oxford Bulletin of Economics and Statistics*, *65*(5), 531–555.

Berkman, H., Jacobsen, B., & Lee, J. B. (2011). Time-varying rare disaster risk and stock returns. *Journal of Financial Economics*, *101*(2), 313–332. Bernanke, B. S. (1983). Irreversibility, uncertainty, and cyclical investment. *The Quarterly Journal of Economics*, *98*(1), 85–106.

Bhattacharya, S. (1979). Imperfect information, dividend policy, and "the bird in the hand" fallacy. *The Bell Journal of Economics*, 259–270.

Black, F. (1976). The dividend puzzle. *Journal of Portfolio Management*, *2*(2), 5–8. Bloom, N. (2009). The impact of uncertainty shocks. *Econometrica*, *77*(3), 623–685.

Bloom, N., Bond, S., & Van Reenen, J. (2007). Uncertainty and investment dynamics. *The Review of Economic Studies*, *74*(2), 391–415.

Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. *Journal of Financial Economics*, *77*(3), 483–527.

Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2008). Managerial response to the May 2003 dividend tax cut. *Financial Management*, *37* (4), 611–624.

Brealey, R. A., & Myers, S. C. (2003). *Principles of corporate finance, interna- tional*. McGraw-Hill.

Charalambous, C., Charitou, A., & Kaourou, F. (2000). Comparative analysis of artificial neural network models: Application in bankruptcy predic- tion. *Annals of Operations Research*, *99*(1), 403–425.

Chay, J. B., & Suh, J. (2009). Payout policy and cash-flow uncertainty. *Jour- nal of Financial Economics*, *93*(1), 88–107.

Chen, J., Leung, W. S., & Goergen, M. (2017). The impact of board gender com- position on dividend payouts. *Journal of Corporate Finance*, *43*, 86–105.

DeFond, M. L., Hann, R. N., & Hu, X. (2005). Does the market value finan- cial expertise on audit committees of boards of directors? *Journal of Accounting Research*, *43*(2), 153–193.

Degiannakis, S., & Filis, G. (2019). Forecasting European economic policy uncertainty. *Scottish Journal of Political Economy*, *66*(1), 94–114.

Dionne, G., & Triki, T. (2005). Risk management and corporate governance: The importance of independence and financial knowledge for the board and the audit committee. Cahier de Recherche/Working Paper, 5, p.15.

Drobetz, W., El Ghoul, S., Guedhami, O., & Janzen, M. (2018). Policy uncertainty, investment, and the cost of capital. *Journal of Financial Stability*, *39*, 28–45.

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Acad- emy of Management Review*, *14*(1), 57–74.

Erol, I., & Tirtiroglu, D. (2011). Concentrated ownership, no dividend pay- out requirement and capital structure of REITs: Evidence from Turkey. *The Journal of Real Estate Finance and Economics*, *43*(1-2), 174–204.

Fama, E. F., & French, K. R. (2001). Disappearing dividends: Changing firm characteristics or lower propensity to pay? *Journal of Financial Econom- ics*, *60*(1), 3–43.

Floyd, E., Li, N., & Skinner, D. J. (2015). Payout policy through the financial crisis: The growth of repurchases and the resilience of dividends. *Jour- nal of Financial Economics*, *118*(2), 299–316.

Gordon, M. J. (1963). Optimal investment and financing policy. *Journal of Finance*, *18*(2), 264–272.

Gulen, H., & Ion, M. (2016). Policy uncertainty and corporate investment. *The Review of Financial Studies*, *29*(3), 523–564.

Guner, N., Ventura, G., & Xu, Y. (2008). Macroeconomic implications of size-dependent policies. *Review of Economic Dynamics*, *11*(4), 721–744.

Hashemi, S. A., & Zadeh, Z. K. (2012). The impact of financial leverage, operating cash flow and size of company on the dividend policy (case study of Iran). *Interdisciplinary Journal of Contemporary Research in Business*, *3*(10), 264–270.

Ho, H. (2003). Dividend policies in Australia and Japan. *International Advances in Economic Research*, *9*(2), 91–100.

Huang, T., Wu, F., Yu, J., & Zhang, B. (2015). Political risk and dividend pol- icy: Evidence from international political crises. *Journal of International Business Studies*, *46*(5), 574–595.

Juma'h, A. H., & Pacheco, C. J. O. (2008). The financial factors influencing cash dividend policy: A sample of US manufacturing companies. *Inter Metro Business Journal*, *4*(2), 23–43.

Kale, J. R., & Noe, T. H. (1990). Risky debt maturity choice in a sequential game equilibrium. *Journal of Financial Research*, *13*(2), 155–166.

Karamanou, I., & Vafeas, N. (2005). The association between corporate boards, audit committees, and management earnings forecasts: An empirical analysis. *Journal of Accounting Research*, *43*(3), 453–486.

Krishnan, G. V., & Visvanathan, G. (2008). Was Arthur Andersen different? Further evidence on earnings management by clients of Arthur Ander- sen. *International Journal of Disclosure and Governance*, *5*(1), 36–47.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (2000). Agency problems and dividend policies around the world. *The Journal of Finance*, *55*(1), 1–33.

Lei, G., Wang, W., & Liu, M. (2015). Political uncertainty, dividend policy adjustments and market effects. *China Journal of Accounting Studies*, *3* (1), 49–83.

Lintner, J. (1956). Distribution of incomes of corporations among divi- dends, retained earnings, and taxes. *The American Economic Review*, *46* (2), 97–113.

Mehrani, S., Moradi, M., & Esk, H. (2011). Ownership structure and divi- dend policy: Evidence from Iran. *African Journal of Business Manage- ment*, *5*(17), 7516–7525.

Ming, X., Sarwar, B., & Naheed, R. (2019, January). Managerial Ability and Dividend Payout Policy during Global Financial Crisis: Evidence from Emerging Market of China. Paper presented at: Proceedings of the 2019 3rd International Conference on Management Engineering, Soft- ware Engineering and Service Sciences, pp. 174–178. ACM.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, *13*(2), 187–221.

Nagar, V., Schoenfeld, J., & Wellman, L. (2019). The effect of economic policy uncertainty on investor information asymmetry and manage- ment disclosures. *Journal of Accounting and Economics*, *67*(1), 36–57.

Nippel, P. (2008). The Impact of a Firm's Payout Policy on Stock Prices and Shareholders' Wealth in an Inefficient Market. Paper presented at: 21st Australasian Finance and Banking Conference 2008 Paper. Avail- able at SSRN.

Parnell, J. A., Long, Z., & Lester, D. (2015). Competitive strategy, capabili- ties and uncertainty in small and medium sized enterprises (SMEs) in China and the United States. Management Decision.

Qiao, Z., Chen, K. Y., & Hung, S. (2018). Professionals inside the board room: Accounting expertise of directors and dividend policy. *Applied Economics*, *50*(56), 6100–6111.

Ramli, N. M. (2010). Ownership structure and dividend policy: Evidence from Malaysian companies. *International Review of Business Research Papers*, *6*(1), 170–180.

Rozeff, M. S. (1982). Growth, beta and agency costs as determinants of dividend payout ratios. *Journal of Financial Research*, *5*(3), 249–259.

Sarwar, B., Ming, X., & Husnain, M. (2020). Economic policy uncertainty and dividend sustainability: new insight from emerging equity market of China. *Economic Research-Ekonomska Istraživanja*, *33*(1), 204–223.

Sarwar, B., Xiao, M., Husnain, M., & Naheed, R. (2018). Board financial expertise and dividend-paying behavior of firms: New insights from the emerging equity markets of China and Pakistan. *Management Deci- sion*, *56*(9), 1839–1868.

Setia-Atmaja, L. (2010). Dividend and debt policies of family controlled firms. *International Journal of Managerial Finance*.

Tran, Q. T. (2020). Corruption, agency costs and dividend policy: Interna- tional evidence. *The Quarterly Review of Economics and Finance*, *76*, 325–334.

Vroom, V. H. (1964). *Work and motivation* (Vol. 54). Wiley.

Wang, Y., Chen, C. R., & Huang, Y. S. (2014). Economic policy uncertainty and corporate investment: Evidence from China. *Pacific-Basin Finance Journal*, *26*, 227–243.

Xiao, X., Tian, Q., Hou, S., & Li, C. (2019). Economic policy uncertainty and grain futures price volatility: Evidence from China. *China Agricultural Economic Review*.

Yin, D. A. I., Zhang, J. W., Yu, X. Z., & Xin, L. I. (2017). Causality between economic policy uncertainty and exchange rate in China with consid- ering quantile differences. *Theoretical & Applied Economics*, *24*(3).