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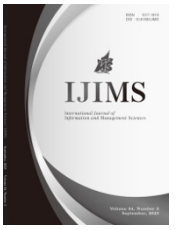

Oil Shocks, Esg Disclosure and Corporate Payouts: An Empirical Study from Vietnam

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Keywords

Oil shocks; ESG disclosure; corporate payouts; Vietnamese listed firms.

Abstract

This paper examines the impact of oil shocks and ESG disclosure on corporate payout of Vietnamese non-financial firms listed on the Ho Chi Minh Stock Exchange (HSX) over the period from 2011 to 2021. We decompose oil shocks into demand and supply sides and employ three measures of divided policy, including dividend payers, payout ratio, dividend scaled by total assets. We find that oil demand shocks reduce corporate payouts while oil supply shock has no impact on corporate payouts. With regard to the impact of ESG disclosure, the findings indicate that ESG disclosure exerts a remarkable positive influence on corporate dividend policy. These empirical results remain robust after controlling for alternative measurements of corporate dividend payouts.

1. Introduction

Environmental deterioration and energy security have attracted key strategic considerations from governments, legislators, and stakeholders cross the globe, with significant implications for energy costs and usage (Wong & Zhang, 2020). Despite the emphasis on alternative sources of energy and their development (Troster et al., 2018), the 2008 financial crisis as well as the COVID-19 crisis has exhibited that the world economy prevails a high association with, and reliance on crude oil (OECD, 2020) through such as wealth transfer, increased production costs, inflation, to name but a few. The extant literature on energy finance along with sustainable finance has provided remarkable evidence that crude oil is a critical input for firms (either directly or indirectly), and shifts in oil price have exerted substantial influences on corporate decisions (Chen et al., 2020), market liquidity (Zhang & Wong, 2022), and stock prices (Kilian, 2009).

ESG disclosure acts as an informative and monitoring mechanism to facilitate firms' access to external finance and control managers' opportunistic behavior as regards the use of free cash flow, thus translating into higher corporate payouts (Zhang & Wong, 2022). In Vietnam, the

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framework concerning sustainable development issues is fairly new, especially for businesses. According to the survey of Grant Thornton Vietnam in 2022, Vietnamese enterprises are facing barriers to promoting ESG criteria, in which the leading barrier making enterprises delay ESG adoption is the cost of taking action. Recently, Vietnam has partnered with other nations, and global economic blocs such as the International Finance Corporation (IFC), Asian Development Bank (ADB), etc., for motivating Vietnamese companies to proactively strive for higher levels of corporate social responsibility (including ESG matters).

Following the unprecedented consequences of the COVID-19 pandemic, gloomy expectations and increased uncertainty (resulting from oil shocks), leaders began to change the way they run business by modifying several dimensions of corporate decisions. As a result, they try to identify the implications of stakeholder-oriented management and plan for the next inevitable disruption (PwC, 2021). Notwithstanding the internationalization of the Vietnamese crude oil futures market and the readiness of Vietnamese businesses to spend on discretionary ESG endeavors, to the best of our knowledge, few studies published to date explore the existence and prominence of corporate payout anomalies. The other motivation for the research approach derives from the fact that the oil shocks can be affected by specific factors driven by demand and supply, as well as being of even greater concern in the future. On that account, there is an urgent need to lend support to comprehending the effects of international oil shocks and corporate transparency regarding ESG information upon Vietnamese firms' corporate payouts.

This article is organized as follows. The next section represents a review of theoretical basis, related studies and develop the hypotheses. The third section will discuss in detail the model, data, and econometric approaches. The fourth section illustrates empirical results and discussions. The last section concludes the research findings and proposes implications for policymakers

2. Literature review

2.1. Overview about ESG

As a response to the interest on the part of investors and other corporate stakeholders in environmental, social and governance (ESG) matters, ESG reports have recently been published by a company or organization to describe a set of factors used to measure the non-financial impacts of a firm. Three categories of ESG are increasingly integrated into investment analyses, processes, and decision-makings, in which the "G" category deals with how the "E" and "S" categories are governed. As a result, getting to grips with sustainability reporting can seem daunting to each firm but sustainability reporting is a journey (GRI, 2013).

2.2. Theoretical framework

Signaling theory

According to signaling theory, corporate insiders who are more informed, and want to transfer value-relevant signals to other stakeholders to lessen information asymmetry. Fama & French (2001) argued that dividends are a tool for signaling investors the prospects of the firm, and as such, the signal follows a positive growth that managers expect in future earnings. Furthermore, signaling theory also offers that ESG expenditures signal information about firms' prospects in view that dividend payout conveys positive information about a firm's future cash

flows, and this implies a firm's good financial capability to afford expenditures in ESG practices (Verga, Barros & Miranda, 2020).

Stakeholder theory

In contrast to the corporate finance literature, which has considered shareholder value maximization as the firms' sole objective, the stakeholder theory proposes other firm's objectives tied to stakeholder's interest, giving rise to the ESG field of research (Verga, Barros & Miranda, 2020). In this vein, a high dividend level combined with higher levels of ESG scores implies that the firm is considering all stakeholders (Demers et al, 2020), meaning that managers' duties extend beyond maximizing shareholder value. As a consequence, businesses with high ESG transparency tend to distribute corporate payouts from the standpoint of wealth distribution ethics (Verga, Barros & Miranda, 2020)

Agency-cost theory

Conflict of interest between managers and shareholders is the primary discussion in agency theory literature. La Porta et al. (2000) propose two potential hypotheses, namely "shareholders substitute hypothesis" and "outcome hypothesis". The former illustrates that dividend payouts are substitutes for shareholder rights, so weaker protection of shareholder rights will result in higher dividend payouts. The latter claims that stronger shareholder rights will empower investors to pressure insiders to pay dividends. While greater expenditure on CSR may be consistent with firm value maximization if it is a response to changes in stakeholders' preferences, conversely argued that insiders might overinvest in non-financial initiatives for their self-serving behaviors at the expense of other shareholders.

Life-cycle theory

In line with life-cycle theory (Fama & French, 2001), on reaching the mature stage, firms are motivated to pay dividends and inclined to be committed to ESG performance thanks to more resources and managerial experience (Hammami & Zadeh, 2019; Hamrouni et al., 2019). Subsequently, dividend growth makes a firm expect a lower level of investments, and future earnings volatility, consistent with the decrease in their systematic risk (DeAngelo et al., 2006). Moreover, this theory suggests that firms with more resources have a likelihood of involving in more CSR practices compared to their peers (Clarkson et al., 2011; Hasan & Habib, 2017).

Legitimacy theory

Apart from the stakeholder theory, sustainable development reports are also often explained through the perspective of legitimacy theory (Mitchell et al., 1997; Freeman et al., 2020). Based on the theory of legitimacy, a company always tries to ensure that its activities do not violate the bounds and norms of its respective societies (Deegan, 2002). In contrast to stakeholder theory, the purpose of sustainability reports in the perspective of legitimacy theory is the wider community, not just certain groups (Fernando et al., 2014).

2.3. Empirical evidence

2.3.1. Differentiated oil shocks

Stemming from the study of Hamilton (1983), the extant literature has well explained the nexus between the real output and oil shocks segregated by supply and demand aspects (see also Kilian, 2009; Uddin et al., 2018; Anand & Paul, 2021). On the one hand, some findings

stated that demand-driven oil shocks could result in a shift of oil prices, and oil production, which means that the underlying demand for commodities was affected due to variations in macroeconomic conditions. On the other hand, others pointed out that production disruptions in the supply of crude oil inversely affect the real oil prices and oil production, which can be attributed to the military conflicts or changes in the production quotas set by the Organization of the Petroleum Exporting Countries (OPEC). In the light of the continuing importance of distinguishing oil shocks induced by demand and supply factors, the energy finance literature has employed demand-and-supply-driven oil shocks in assessing their impact on corporate outcomes (Ready, 2018). Outstandingly, Kilian (2009) applies the structural vector autoregression (SVAR) methodology to delineate demand-and-supply-driven oil shocks and concluded that not all oil price shocks are identical. However popular SVAR approach used by Kilian (2009) is, it would rather correlate with present or future shifts in oil prices to understand two types of shocks (Kaufmann, 2014; Ready, 2018). Practically, it is challenging to know whether variations in oil prices are attributed to the anticipation of changes in demand or supply concerns (Malik & Umar, 2019; Wong, 2021). Thus, to gain further insights into this matter, Ready (2018) introduces a new approach using publicly traded assets to distinguishe movements in oil prices, in which oil demand shock is measured by changes in oil price, and oil supply shock is computed using an index of oil-producing firms.

2.3.2. Impact of oil shocks on corporate payouts

Prior evidence suggest that oil price fluctuations have a substantial impact on corporate outcomes (e.g., Ratti et al., 2011; Zhang et al., 2020; Alaali, 2020). For instance, Alhassan (2018) use a sample of 356 firms from the Gulf Cooperation Council (GCC) markets spanning from 2005 to 2015 and finds that corporate decisions related to cash flow sensitivity, such as investments and dividend policy, should also be sensitive to oil price volatility, and that firms tend to invest less while more likely to choose not to pay dividends during periods of high volatility in oil prices. Similarly, Wu et al. (2020) employ a sample of all non-state-owned, A-share listed manufacturing firms in China from 2008 to 2018 and report that. Firms with oil-linked assets in place are more likely to experience cash flow shortfalls. This, in turn, impacts their future investments and corporate decisions. In terms of firm-level outcomes, Hasan & Wong (2021) analyzed the impact of oil shocks on the corporate payouts of the U.S corporations over the period between 1985 and 2019. Their fixed-effect regression results demonstrated that oil supply shocks mostly decreased payouts through fewer share repurchases, but oil demand shocks significantly increased corporate payouts through larger share repurchases, but smaller cash dividends. In contrast to these studies, Wiryono et al. (2020) use the data of 94 manufacturing firms between 2000 and 2017 and found that shocks in oil price does not influence the corporate outcomes of Indonesia's manufacturing sector.

This paper argues that, since demand-driven oil shocks are typically related with rising prices attributing to economic expansion (Ready, 2018), there are greater expectations for future cash flows. However, in a growing economy, the availability of more profitable investment opportunities may prompt managers to employ funds for investment purposes (Wong & Hasan, 2021), which can reduce cash distributions. In the context of Vietnam, it is less known, however, that it is a net exporter of crude oil but even a net importer of oil products. In other words, Vietnam has different conditions that need to be taken into consideration. According to the 2019 report of World Bank, Vietnam ranked 34th worldwide regarding oil production, and first place in Southeast Asia concerning crude oil reserves. Therefore, the first and second hypothesis proposed are:

H1: Oil shocks driven by demand exert a negative influence on corporate payouts.
H2: Oil shocks driven by supply exert no influence on corporate payouts.

2.3.3. Impact of ESG disclosure and corporate payouts

In the ESG context, Cheung et al. (2018) outline two ESG perspectives of dividends on the sample of 1965 firms spanning the period 1991 - 2010. On the one hand, the firms were likely to pay out fewer dividends as discretionary spending lessened the cost of equity, prompting firms to hoard cash rather than to distribute dividends to the shareholders. On the other hand, firms with a stronger involvement in ESG activities should exhibit higher dividend payouts as higher CSR scores increased earnings through lower levels of perceived risk (e.g., Goss et al., 2011; Ould, 2020). Gao et al. (2022) investigate the linkage between ESG practices and financial indices of listed Chinese companies during the COVID-19 pandemic. They find that ESG adoption improves financial performance. In line with sustainable finance literature, Chang et al. (2022) provide implications of ESG practices on firm value. Collectively, empirical evidence supports that ESG practices can increase firm value by strengthening customer–supplier relationships, boosting long-term growth, increasing dividends, and reducing financing costs.

Conversely, the studies of Harford et al. (2014) and Starks et al. (2020) indicated that dividends posed a question regarding short-term issues given that stock market investors and hedge funds are short-term oriented for cash flows and profitability at the expense of long-term gains. Furthermore, Demers et al. (2020) investigate whether ESG is an indicator of share price resilience during the COVID-19 crisis and document that ESG offers no such positive explanatory power for returns during the COVID crisis, as well as exerts negative influence on market returns during the recovering phase in second quarter of 2020. However, it provides material and value - relevant information and also permits outsiders to evaluate firms' profiles from different perspectives such as risk, and future cost and benefits more precisely. Therefore, the third hypothesis proposed is:

H3: A firm's ESG transparency and corporate payout is positively correlated.

3. Data and Methodology

3.1. Data and sample selection

The study uses a balanced panel data of 206 non-financial companies listed on Ho Chi Minh Stock Exchange (HSX) covering a period from 2011 to 2021. To obtain this sample, we exclude financial firms as they are subject to substantially different accounting practices and regulations (Hasan & Habib, 2020), and dropt observations with missing needed financial data. ESG information is collected from the companies' financial statements, annual reports, and sustainable development reports. Financial data at firm level and data related to crude oil prices and their fluctuations are collected from Datastream. Monthly time series of global economic policy uncertainty (EPU) is from https://www.policyuncertainty.com. In order to mitigate the influence of outliers, all the continuous variables are winsorized on both sides at the 1% level of to tails.

3.2. Models

This paper investigates the influence of differentiated oil shocks (namely, demand shock and supply shock), and ESG disclosure on corporate payouts through the models based on previous studies (e.g., Chen, 2017; Davaadorj, 2019; Hasan & Habib, 2020; Wong & Hasan, 2021), as follows:

$$\boldsymbol{Corporate\ payouts_{i,t+1} = \alpha_0 + \beta_1 Shocks_t + \vartheta Controls_{i,t} + \varepsilon_{i,t+1}} \quad (3.1)$$

$$\boldsymbol{Corporate\ payouts_{i,t+1} = \alpha_0 + \beta_2 ESG_{i,t} + \vartheta Controls_{i,t} + \varepsilon_{i,t+1}} \quad (3.2)$$

$$\boldsymbol{Corporate\ payouts_{i,t+1} = \alpha_0 + \beta_1 Shocks_t \beta_2 ESG_{i,t} + \vartheta Controls_{i,t} + \varepsilon_{i,t+1}} \quad (3.3)$$

where: Corporate payouts is one out of the three measures: (1) Dividend Payer (*DP*), measured as a binary variable taking value of 1 if a firm pays dividend or repurchases in a given year, otherwise 0; (2) total payout ratio (*TPR*) measured by total payout over net income; (3) total payouts scaled by total assets (*TPTA*); ESG denotes environmental, social, governance disclosure; Controls are control variables; i, t refers to firm i at year t; α, β, ϑ are the estimated coefficients and $\varepsilon_{i,t+1}$ is the error terms.

Following prior studies (e.g., Hoberg et al., 2014; Hasan and Habib, 2020; Wong and Hasan, 2021), we control for firm's characteristics, including the natural logarithm of the firm's assets (*SIZE*), market-to-book value ratio (*MTB*), financial leverage (*LEV*), return on assets (*ROA*), cash holdings scaled by total assets (*CASH*), capital expenditure scaled by total assets (*CAPEX*), cash flow (*CF*), volatility of stock returns (*RET_SD*), and tangible assets (*TANG*). We also include natural logarithm of global economic policy uncertainty (*EPU_LN*) (Baker et al., 2016) as a control for macro-economic conditions. The reasoning for including these control variables is presents in subsection 3.3.3.

In this paper, each dividend variable at time t+1 is regressed with oil shocks, ESG, and control variables at time t. The lead-lag relationship is expected because of following reasons. First, oil shocks represent the forward-looking nature of the instruments, exhibiting not only contemporaneous but also anticipated shocks (Clements et al., 2019). Secondly, payout policies for the current year may have been ratified and announced prior to the observed oil shocks. Lastly, consistent with the studies of Petersen (2009) and Duong et al. (2020), oil prices and financial information available in year t will be used to predict payouts in year t+1 in order to partly mitigate the concurrent endogeneity.

3.3. Variable description

3.3.1. Dependent variables

This empirical analysis uses the sum of cash dividends and repurchased shares to indicate total corporate payouts (following Zadeh, 2020), in which cash dividends are denoted as dividends paid to common shareholders and share repurchases are identified as common and preferred stock repurchases adjusted for any decreases in preferred stock (Cuny et al., 2009; Bodnaruk & Östberg, 2013). Then, corporate payouts are taken by three measurements (Chen et al., 2017; Mulchandani et al., 2021), namely: *DP* - Dummy variable that take a value of 1 if a firm pays dividends and/or repurchases shares, otherwise 0; *TPR* - Total payout ratio – calculated as total payouts divided by net income; *TPTA* - Total payouts scaled by total assets. In the robustness check, we scale the total payouts by earnings before interest and taxes (*TPEBIT*) and sales (*TPSALE*).

3.3.2. Independent variables

3.3.2.1. Oil shocks

In line with the methodology of Ready (2018), this paper decomposes oil shocks into demand-and supply-driven factors. Similar to the extant literature (e.g., Demirer et al., 2020; Umar et al., 2021; Wong and Hasan, 2021), we employ the World Integrated Oil and Gas Producer Index to proxy for oil supply shocks, and use the second-nearest-to-maturity West Texas Intermediate (WTI) futures contracts traded on the New York Mercantile Exchange (NYMEX) functions as a proxy for oil demand shocks. The monthly returns of each price series are then computed (and shown in Figure 1).

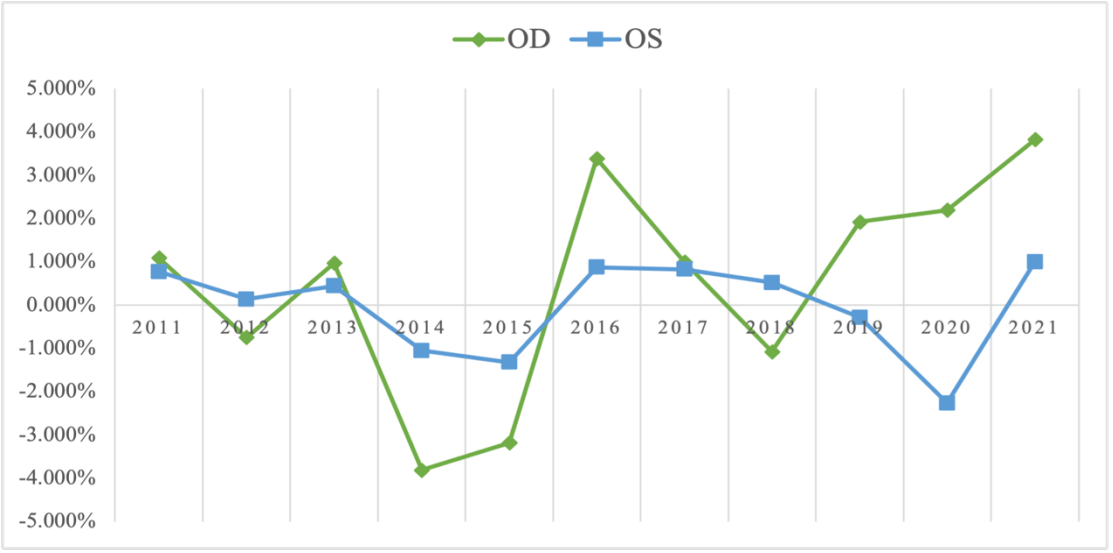

Fig 1. *The demand and supply shocks over the observed period (2011~2021)*

Souce: Datastream

3.3.2.2. ESG Disclosure

ESG disclosure and its measurement are well investigated in developed countries but need some adaptive changes in terms of both content and form to fit in the current local cultural, and socioeconomic context and political and legal settings (Gillan et al., 2021). Due to the shortage of available ESG database for Vietnamese firms, we use a qualitative disclosure in annual reports, sustainable development reports, and reports related to environmental and social impacts to assess the degree of ESG disclosure as suggested by previous studied ((Islam & Deegan, 2008; Mahadeo et al., 2011; Tien et al., 2019). Accordingly, we construct a dummy variable for ESG, which equals 1 if a firm has embraced ESG agendas by disclosing information and 0 otherwise.

3.3.3. Control variables

3.3.3.1. Market-to-book ratio (MTB)

Growth opportunity represents the investment opportunities in the future, in which unexpected investments will appear and affect shareholders' interest if a firm incurs higher agency costs. Li et al. (2019) find that the MTB ratio is negatively associated with dividend payments for active Egyptian firms, and vice-versa results are obtained for non-active firms. Contrary to this, a study conducted by He & Wintoki (2016) on US firms find a positive association of MTB and dividend payments. MTB is measured as follows:

$$\text{Market} - \text{to} - \text{Book Ratio (MTB)} = \frac{\text{Market value of Equity}}{\text{Book value of Equity}}$$

3.3.3.2. Leverage ratio (LEV)

Prior studies (e.g., DeAngelo et al., 2006; Manneh & Naser, 2015; Labhane & Mahakud, 2016) reveal that firm leverage frequently restricts enterprises' payouts as highly levered firms are subject to close monitoring from lenders and creditors, and high cost of external financing. As a result, they are inclined to pay lesser dividends and prefer to retain earnings. Leverage ratio is measured as

$$\text{Leverage ratio (LEV)} = \frac{\text{Total Debts}}{\text{Total Assets}}$$

3.3.3.3. Firm size (SIZE)

Large companies have fewer financial constraints, which improve their ability to keep stock repurchases or pay dividends (Cuny et al., 2009). Kim & Kim (2019) and Sudrajat et al. (2020) also demonstrated that firm size has a positive impact on corporate decisions as higher retained earnings to total common equity (RETE) ratio is obtained for firms in the maturity phase without many profitable investment opportunities. Firm size is measured as the logarithm of total assets.

$$\text{Firm size (SIZE)} = \text{Ln (Total assets)}$$

3.3.3.4. Cash holdings (CASH)

Cash holding refers to liquid assets including cash balance, cash equivalent, and short-term financial investments. Previous research argued that managers' decisions can be managed by allocating excess cash either as paying dividends or share repurchases, thereby payouts will lower the cash balance, preventing management from misusing the funds (Grey et al., 2020; Gim & Jang, 2020; Wong & Hasan, 2021). Adversely, Dogru (2017) suggest that firms with expansion plans should hold a large amount of cash and need not to pay dividends. Therefore, the impact of cash holdings on dividend may be conditional on investment opportunities. In this study, we measure cash holdings as

$$\text{Cash holdings (CASH)} = \frac{\text{Total Debts}}{\text{Total Assets}}$$

3.3.3.5. Cash flow (CF)

Cash flow (CF) has been reported as an important factor affecting firm performance because its impact on firm investment (Konak, 2018). Investment is likely to be sensitive to the availability of not only external finance but also internal funds (Verona, 2020). Sufficient cash flow allows for a timely response to unexpected situations, improving a firm's ability to resist risks. In addition, Odo et al. (2021) also show that cash flow has an influence on financial performance of firms. Cash flow is defined as

$$\text{Cash flow ratio(CF)} = \frac{\text{Operating Cash Flow}}{\text{Total Assets}}$$

3.3.3.6. Return on assets (ROA)

This is a measure of company's ability to generate profits. Firms are less likely to increase payout levels unless the firm's expected earnings improve. Previous research reports that return on assets has positive effect on corporate outcomes (e.g., Almumani, 2018; Supriyadi, 2021), thereby, dividend payouts.

$$\text{Return on assets (ROA)} = \frac{\text{Earnings before taxes}}{\text{Total Assets}}$$

3.3.3.7. Capital expenditure scaled by total asset (CAPEX)

Firms make their capital expenditures by acquiring or upgrading physical assets such as property, buildings, or equipment. Mwangi (2014) finds that capital expenditure is positively correlated with financial performance.

$$\text{Capital expenditure scaled by total asset (CAPEX)} = \frac{\text{Purchases of PPE+ Proceeds of PPE}}{\text{Total Assets}}$$

3.3.3.8. Tangible asset (TANG)

Asset tangibility has been found to be an important determinant of a company's ability to finance investments externally (Almeida and Campello, 2007). According to Koo et al. (2017), asset tangibility can either boost payouts by making external funding easier to obtain or lower payouts by limiting the availability of cash flows.

$$\text{Tangible Assets (TANG)} = \frac{\text{Fixed assets + Real estate investments}}{\text{Total Assets}}$$

3.3.3.9. Stock return volatility (RET_SD)

According to earlier research, companies with volatile returns prefer to repurchase stock instead of paying dividends (Jagannathan et al., 2000). Jiang, Ma, and Shi (2017) report a positive association between stock liquidity and dividend payments when it comes to the importance of personal information in stock prices as a factor of dividend policy. According to their findings, higher stock liquidity allows investors to perform transactions using private information and absorb more information on the actions of controlling shareholders as measured by the stock prices.

Daily stock return volatility (RET_SD) = $\sqrt{\frac{\sum_{i=1}^{n}(x_i-\bar{x})\text{^}2}{n-1}}$

3.3.3.10. Economic policy uncertainty (EPU)

Economic policy uncertainty is measured as the logarithm of average monthly overall global EPU index in given year (Baker et al., 2016. Particularly, the natural logarithm of economic policy uncertainty (*EPU_LN*) must be taken into consideration to account for the broad economic condition that may impacts on corporate payouts based on precautionary or agency motives.

Economic policy uncertainty = Ln (average monthly EPU index)

3.4. Research Methodology

In this study, a logit model is employed for the dummy dividend variable (DP) while linear regression with panel-corrected standard error (PCSE) have been applied for the two other continuous dividend variables (*TPA* and *TPTA*). The panel-corrected standard error estimator is more efficient than ordinary least squares when existing cross-sectional dependence (Lee, 2002; Andrew, 2005).*

* We conduct a cross sectional dependence test. The test rejects the null hypothesis of no cross-sectional dependence at 1% level of significance.

4. Empirical results and Discussion

4.1. Empirical results

4.1.1. Descriptive statistics and Correlation matrix

Table 1: *Descriptive statistics*

Variable	Observations	Mean	SD	Minimum	Maximum
DP	2,060	0.800	0.399	0	1
TPR	2,059	0.432	0.376	0	1.109
TPTA	2,060	0.036	0.063	-1.47e-06	0.931
TPSALE	2,059	0.067	0.309	-1.18e-06	12.85
TPEBIT	2,059	0.321	0.589	-10.71	10.14
OS	2,060	-0.0013	0.01	-0.022	0.008
OD	2,060	0.0017	0.022	-0.038	0.034
MTB	2,059	2.422	3.288	0	67.3
LEV	2,060	0.492	0.226	0.002	4.857
SIZE	2,059	28.07	1.331	25.15	33.67
CASH	2,060	0.041	0.054	0	0.732
CF	2,060	0.873	0.778	-0.194	6.027
ROA	2,060	0.065	0.135	-0.517	5.17
TANG	2,060	0.273	0.247	0	5.56
RET_SD	2,054	0.456	0.233	0	2.358
EPU_LN	2,060	5.122	0.322	4.663	5.768
ESG	2,060	0.506	0.500	0	1
CAPEX	2,060	0.035	0.039	0	0.118

Table 1 shows the summary statistics of the variables. It can be seen that papers are accounting for 80% of firm-year observations with standard deviation of 0.399, indicating that most firms choose to pay dividends and/or buyback programs thorough the research period. Further, the average value of *TPR* and *TPTA* are 0.432 and 0.036, implying that the average ratio of payouts over net income (total assets) is 43.2% (3.6%) with a standard deviation of 0.376 and 0.063, respectively. Also, the results show that oil demand presents greater shocks than oil supply as the means of two variables are 0.0017, -0.0013, respectively, and captures higher volatility than oil supply shocks with a standard deviation of 0.022 and 0.0122.

The correlation matrix is presented in the Table A1 (Appendix). It can be seen from the table that dividend payer (DP*)* and average payout scaled by total assets *(TPTA)* are positively correlated with both oil demand shocks and oil supply shocks. Meanwhile, payout ratio *(TPR)* is positively correlated with oil demand shocks but negatively correlated with oil supply shocks ($\rho = 0.009$, $\rho = -0.003$, respectively). Results in Table A1 also indicate that *TP, TPR, TPTA*

have positive correlation with *ESG* ($\rho = 0.139$, $\rho = 0.095$, $\rho = 0.07$; $p < 0.01$), which presents preliminary evidence that *ESG* can be influential in corporate payouts. Besides, there are remarkably positive relationships between two main explanatory variables (*OD* and *OS*) with $\rho = 0.32$; $p < 0.01$, and between payout measures with $\rho = 0.22$, $\rho = 0.36$; $p < 0.01$.

4.1.2. Main results

Logistic regression results

The result of logistic regressions in Table 2 shows that there is no statistical significance in the relationship between oil shocks and corporate payouts (p-value > 0.05). Second, as the interpret $\beta_2 = 0.438$, payout decision has 55% ($e^{\beta 2} - 1 = 0.55$) more likelihood of having higher ESG disclosure than the non-payout decision. Control variables, *SIZE, CF, ROA,* and *TANG* have consistent impact on *DP*. When *ESG* and oil shock variables coexist in the *TP* (3), *ESG* still has positive relationship with *TP* and other variables show the same effects on *TP* as in *TP* (1) column.

Table 2: *Logistic regression results*

	TP (1)	**TP (2)**	**TP (3)**
OS	12.74598		10.41564
	(8.175)		(8.267)
OD	-0.1453035		1.324218
	(5.029)		(5.09)
ESG		0.4380714***	0.431149***
		(0.14)	(0.141)
MTB	0.0103914	0.0024786	0.0052084
	(0.036)	(0.035)	(0.035)
LEV	0.3857056	0.4943176	0.4743775
	(0.346)	(0.348)	(0.348)
SIZE	0.3198111***	0.2782561***	0.2844926***
	(0.058)	(0.059)	(0.059)
CASH	1.172673	0.7835856	0.9145985
	(1.467)	(1.462)	(1.464)
CF	0.3736662***	0.3561046***	0.356748***
	(0.102)	(0.102)	(0.102)
ROA	20.02959***	19.59736***	19.50491***
	(1.806)	(1.79)	(1.793)
TANG	1.435222**	1.419271**	1.42641**
	(0.679)	(0.674)	(0.676)
RET_SD	-0.0831707	0.035308***	0.0270517
	(0.616)	(0.614)	(0.615)
EPU_LN	-0.108251	-0.4340264**	-0.409605
	(0.338)	(0.206)	(0.355)
CAPEX	1.067904	-1.398979	-1.564869
	(1.867)	(1.872)	(1.875)
CONS	-8.64861***	-6.072287**	-6.341752***
	(2.206)	(1.827)	(2.336)

Note: ***, **, * denote statistical significance at the 1%, 5% and 10% levels, respectively.

PCSE estimation results

The PCSE estimation results (in Table 3) indicate that *OD* has a negative impact on corporate payouts (only *TPR*) with the coefficient of -0.88 at the significance level of 10%. Regarding the impact of ESG on dividend, the results show that *ESG* has a strongly positive impact on TPR and *TPTA* at the significance level of 1% and 5%, respectively. Control variables such as *LEV*, *SIZE*, *CASH*, *RET_SD* have negative effects on corporate payouts at 1% significance level, while, *CF*, *ROA*, *TANG* are positively associated with corporate payouts at 1% significance level. Furthermore, *MTB*, *EPU_LN* show their inconsistent effect on *TPR* and *TPTA*. Finally, *CAPEX* remains to have no impact on corporate payouts thorough multiple regressions.

Table 3: *PCSE Estimation*

	TPR (1)	***TPTA (1)***	***TPR (2)***	***TPTA (2)***	***TPR (3)***	***TPTA (3)***
OS	1.015534 (0.865)	0.1263654 (0.155)			0.7533438 (0.973)	0.0935711 (0.161)
OD	-0.8882991* (0.459)	-0.1260431 (0.08)			-0.745498 (0.509)	-0.1090932 (0.083)
ESG			0.0677169*** (0.023)	0.0090314** (0.0038)	0.0653404*** (0.219)	0.0086894** (0.004)
MTB	0.0025655 (0.003)	0.0019267* (0.001)	0.0017876 (0.003)	0.0018144 (0.001)	0.0017914 (0.003)	0.0018265* (0.001)
LEV	-0.0762308 (0.062)	-0.0629089*** (0.009)	-0.0671361 (0.064)	-0.0615966*** (0.009)	-0.0654541 (0.065)	-0.0614286*** (009)
SIZE	-0.0265265*** (0.008)	-0.0030482*** (0.001)	-0.0318886*** (0.008)	-0.0037552*** (0.001)	-0.0324936*** (0.009)	-0.0038677*** (0.001)
CASH	-0.549615*** (0.175)	-0.1138269 (0.025)	-0.5761585*** (0.176)	-0.1174618* (0.07)	-0.5695797*** (0.175)	-0.11647* (0.069)
CF	0.0415019*** (0.011)	0.0116827*** (0.002)	0.0380448*** (0.011)	0.0112425*** (0.002)	0.0377771*** (0.011)	0.011193*** (0.002)
ROA	0.1089971** (0.065)	0.0676315*** (0.025)	0.1065111** (0.052)	0.0670579*** (0.025)	0.106741** (0.052)	0.0672424*** (0.025)
TANG	0.056379 (0.069)	0.0655238*** (0.009)	0.0458985 (0.094)	0.0642529*** (0.01)	0.0467757 (0.094)	0.0642915*** (0.008)
RET_SD	0.0465325 (0.112)	-0.0389591*** (0.011)	0.0614603 (0.113)	-0.0371611*** (0.011)	0.0617313 (0.113)	-0.037002*** (0.01)
EPU_LN	0.0726378* (0.045)	0.0110102 (0.008)	-0.0147664 (0.038)	-0.0012391 (0.006)	0.0347613 (0.047)	0.0062368 (0.008)
CAPEX	-0.0288535 (0.265)	-0.0283669 (0.035)	-0.0762641 (0.274)	-0.0343466 (0.036)	-0.0705065 (0.268)	-0.0331203 (0.035)
CONS	0.7856592*** (0.277)	0.0828748** (0.04)	1.34644*** (0.268)	0.160526*** (0.035)	1.112086*** (0.308)	0.1256636*** (0.044)

Note: ***, **, * denote statistical significance at the 1%, 5% and 10% levels, respectively

The empirical result from main estimation (PCSE) reveals that there is no relationship between oil supply shocks and corporate payouts (both payout ratios and payouts scaled by total assets). In this research sample, due to the absolute dominance of oil-user and non-oil industries, oil supply shocks may hardly increase firm's capital expenditure to alleviate their supply constraints, leading to an unaffected free cash flow for dividend payouts (in line with the study of Wong & Hasan, 2021). With regard to the demand side, oil shocks exert a negative influence on total payouts (mainly driven by cash dividends), which is consistent with the findings of Wong & Hasan (2021). As our prediction stated by the second hypothesis, positive oil demand shocks reflect more potential investment opportunities in a thriving economy (Ready, 2018), which may in turn prompt managers to use funds for investment purposes and reduce cash distributions along with total corporate payouts. Moreover, with negative demand shocks, most firms are inclined to either maintain or pay more cash dividends to purse more stable dividend policies and signal their financial prospects during the crisis (Ali, 2022), as posited by dividend signaling theory. Outstandingly, the empirical findings represent that oil demand shocks have an impact on corporate dividend while oil supply shocks has no statistical significance. This may be because most of the volatility in oil prices and other macroeconomic variables derive from shifts in oil demand shocks (Herrera et al., 2019). In terms of ESG disclosure, information transparency exerts a positive influence on corporate payout, providing support for the hypothesis that the transparency of ESG disclosure increases managers' incentives for paying dividends and making share repurchase programs (Rakotomavo, 2012). In other words, high ESG transparent firms have reputation for efficient cost control and the optimal use of resources, hence, they may prefer more stable payout policies to signal their transparency and sound governance (Yu et al., 2018).

Based on the results from *TPR (3)* and *TPTA (3)*, *ESG* still has positive impacts on these two dependent variables of dividend, and there is an increase of *ESG* coefficients. When *ESG* and Oil shocks variables coexist in the *TPR* model, *ESG* has a positive impact on *TPR* while coefficients on Oil shocks variable are insignificant.

4.1.3. Robustness check

We use other two alternative measures of dividend, *TPSALE* (total payouts scaled by total sales) and *TPEBIT* (total payouts scaled by earnings before interests and taxes), in order to check the robustness of the impacts of oil price shocks and ESG disclosure, and the results in Table 4 show that the impacts of oil shocks driven by demand and supply sides on the corporate payout scaled by the two alternative variables are not significant while *ESG* is statistically significant with the positive relationship with total payouts scaled by EBIT *(TPEBIT)*, which exhibits the same finding with the effect of *ESG* on *TPR and TPTA* in the PCSE estimation. From these analyses, findings from the main analysis (PCSE estimation) remain qualitatively unaffected and not driven by specific measures of payouts in the regression estimates.

Table 4: *Robustness check*

	TPSALE (1)	**TPEBIT (1)**	**TPSALE (2)**	**TPEBIT (2)**
OS	-0.1507522	-0.6839929		
OD	-0.3625035	-0.5121623		
ESG			-0.0030918	0.055069**
CONTROLS	YES	YES	YES	YES

5. Conclusion

This study investigates the impacts of oil shocks driven by demand-and-supply factors, ESG disclosure on corporate payouts of Vietnamese non-financial firms listed on the Ho Chi Minh Stock Exchange (HSX). We exploit Ready (2018)'s innovative methodology to separate oil shocks into demand and supply sides, and measure corporate payouts as dividend payer, payout ratio, payouts scaled by total assets (in consistent with the findings of Wong & Hasan, 2020; Mulchandani et al, 2021). Over the period from 2011 to 2021, the paper find that oil demand shocks reduce corporate payouts and oil supply shocks have no impact on corporate payouts. With regard to the impact of ESG disclosure, the findings indicate that ESG disclosure exerts a remarkable positive influence on corporate decisions.

Overall, the findings of this paper make a remarkable contribution to the existing literature including both energy finance and corporate finance. Prior studies have demonstrate that oil shocks have significant implications for investment decision, capitalization, managerial efficiency, earning capacity, and liquidity (Lee & Lee, 2019; Chen et al., 2020), but the extent to which oil shocks affect corporate payouts has been underexplored. Thereby, this paper fills in this gap in the existing body of literature by revealing empirical findings that oil shocks driven by demand and supply have important and diverse implications for corporate payouts. Besides, the findings uncover that shareholders' interests (demanding for higher corporate payouts) and other stakeholders' interests (calling for increased ESG disclosure) are not necessarily in conflict. In other words, both objectives can be achieved provided that a firm maintains its commitment to higher ESG disclosure. Finally, this study also has potential policy implications for academics, managers, regulators who may be interested in pondering strategies that encourage businesses to mitigate the negative impact of oil shocks on corporate outcomes, as well as concentrate on effectively incorporating ESG criteria into the business.

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Table A1: *Correlation matrix*

	TP	**TPSALE**	**TPTA**	**TPEBIT**	**TPR**	**OS**	**OD**
DP	1						
TPSALE	0.0631 (0.004)	1					
TPTA	0.2261 (0.000)	0.3017 (0.000)		1			
TPEBIT	0.1423 (0.000)	0.4716 (0.000)	0.345 (0.000)	1			
TPR	0.3643 (0.000)	0.2005 (0.000)	0.449 (0.000)	0.527 (0.000)	1		
OS	0.0571 (0.009)	-0.0134 (0.544)	0.0033 (0.882)	-0.018 (0.412)	0.009 (0.667)	1	
OD	0.0096 (0.664)	-0.0276 (0.211)	0.0060 (0.785)	-0.023 (0.294)	-0.003 (0.904)	0.3241 (0.000)	1
MTB	0.1580 (0.000)	0.0264 (0.231)	0.2253 (0.000)	0.0219 (0.320)	0.0141 (0.523)	-0.0229 (0.298)	0.040 (0.069)
LEV	-0.051 (0.021)	-0.0956 (0.000)	-0.301 (0.000)	-0.111 (0.000)	-0.078 (0.000)	0.0246 (0.264)	-0.009 (0.667)
SIZE	0.1177 (0.000)	0.0024 (0.913)	-0.088 (0.000)	-0.088 (0.000)	-0.055 (0.013)	-0.0549 (0.013)	0.0569 (0.009)
CASH	0.0678 (0.002)	-0.0363 (0.099)	0.0235 (0.287)	-0.027 (0.210)	-0.011 (0.606)	-0.0402 (0.068)	0.0015 (0.944)
CF	0.1397 (0.000)	-0.1110 (0.000)	0.1178 (0.000)	0.0214 (0.331)	0.0972 (0.000)	0.0267 (0.225)	-0.007 (0.747)
ROA	0.1770 (0.000)	0.0593 (0.007)	0.3271 (0.000)	0.0620 (0.005)	0.0914 (0.000)	-0.0171 (0.439)	0.0204 (0.355)
TANG	0.1019 (0.000)	0.0083 (0.705)	0.0487 (0.027)	0.0060 (0.786)	0.0530 (0.016)	0.0404 (0.066)	-0.024 (0.274)
RET_SD	0.1135 (0.000)	0.0072 (0.744)	0.0697 (0.002)	0.0005 (0.783)	0.0607 (0.006)	0.0334 (0.130)	-0.025 (0.246)
EPU_LN	-0.015 (0.491)	-0.0228 (0.300)	0.0261 (0.236)	-0.003 (0.877)	0.0104 (0.636)	-0.2309 (0.000)	0.6664 (0.000)
ESG	0.1396 (0.000)	-0.0096 (0.662)	0.0955 (0.000)	0.0409 (0.064)	0.0713 (0.001)	-0.0573 (0.009)	0.2005 (0.000)
CAPEX	0.1131 (0.000)	-0.0001 (0.995)	0.0425 (0.053)	-0.019 (0.389)	0.0136 (0.538)	0.0768 (0.000)	-0.0137 (0.533)

	MTB	LEV	SIZE	CASH	CF	ROA	TANG
MTB	1						
LEV	-0.1389 (0.000)	1					
SIZE	0.2547 (0.000)	0.2296 (0.000)	1				
CASH	0.1716 (0.000)	-0.0605 (0.006)	-0.1117 (0.000)	1			
CF	0.1046 (0.000)	0.1294 (0.000)	-0.1655 (0.000)	0.2042 (0.000)	1		
ROA	0.2371 (0.000)	-0.2179 (0.000)	-0.0312 (0.156)	0.1680 (0.000)	0.1192 (0.000)	1	
TANG	-0.014 (0.525)	0.1603 (0.000)	0.0065 (0.767)	-0.0491 (0.025)	-0.0145 (0.509)	-0.0033 (0.881)	1
RET_SD	0.0351 (0.111)	0.0207 (0.348)	0.0208 (0.346)	-0.0402 (0.068)	0.0088 (0.690)	0.0213 (0.334)	0.861 (0.000)
EPU_LN	0.0850 (0.000)	-0.0393 (0.074)	0.1412 (0.000)	0.0114 (0.604)	-0.0231 (0.295)	0.0346 (0.116)	-0.077 (0.000)
ESG	0.2113 (0.000)	-0.0405 (0.066)	0.2673 (0.000)	0.0538 (0.014)	0.0592 (0.007)	0.0831 (0.000)	-0.051 (0.019)
CAPEX	0.1028 (0.000)	0.0355 (0.107)	0.1217 (0.000)	-0.0434 (0.048)	0.0626 (0.004)	0.0574 (0.009)	0.3553 (0.000)

	RET_SD	**EPU_LN**	**ESG**	**CAPEX**
RET_SD	1			
EPU_LN	-0.0704 (0.001)	1		
ESG	-0.0446 (0.043)	0.3638 (0.000)	1	
CAPEX	0.3723 (0.000)	-0.0667 (0.002)	0.0776 (0.000)	1

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