Estimating the Value of Political Connections in a Sharia-compliant Environment: Evidence from Indonesia

シャリア・コンプライアンス環境下における政治的つながりの価値推定：インドネシアにおける実証分析

A dissertation presented

by

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Abstract

Political connections are considered a valuable resource in not only high-corruption countries but also low-corruption countries. This dissertation investigates the relationship between political connections and Sharia compliance, aiming to deepen understanding of the nature of political connections, as Sharia compliance prohibits engaging in corruption. Specifically, I analyze whether: 1) political connections and Sharia compliance affect merger and acquisition (M&A) performance; 2) connections to politicians affect the market response to firms' inclusion in or exclusion from the Indonesia Sharia Stock Index (ISSI); 3) political connections and Sharia compliance have been valuable during the COVID-19 pandemic; and 4) political connections affect firms' environmental performance.

This dissertation comprises six chapters. Chapters 1 and 6 respectively introduce and conclude this dissertation. The remaining four chapters (i.e., Chapters 2–5) are essays on the empirical relationship between political connections and Sharia compliance. In Chapter 2, I study the impact of political connections and Sharia compliance on M&A performance, focusing on M&A deals in Indonesia during 2010–2016. I find that while political connections can improve market reactions to M&A announcements, Sharia compliance has a positive but insignificant impact on M&A performance. I further find that there is a substitution relationship between Sharia compliance and political connections: Sharia-compliant firms with political connections have poorer M&A performance than non-Sharia-compliant firms with political connections.

Chapter 3 examines market responses to firms' addition to and removal from the ISSI and how political connections influence those market responses. I employ two kinds of analysis. First, using the event-study methodology, I measure abnormal returns surrounding the announcement of each firm's addition to or removal from the ISSI. Second, to more precisely identify the relationship between political connections and Sharia compliance, I use a pooled regression analysis. The results show that neither addition to nor removal from the ISSI produces abnormal returns for Indonesian firms, indicating that investors are little concerned with ISSI reconstitutions. Furthermore, political connections increase firms' value before inclusion in the ISSI, but the benefits of these connections are lost after their addition to the index.

Chapter 4 offers novel evidence by investigating the value of political connections and Sharia compliance during the COVID-19 pandemic. I use the event-study methodology to measure the stock market reaction to the COVID-19 pandemic, and conduct a pooled regression analysis to more precisely identify the value of political connections and Sharia compliance during the pandemic. I find that a stock market anomaly occurred during the COVID-19 pandemic in Indonesia, in that the pandemic had a positive impact on the stock market. I also find that there was value for firms in being Sharia-compliant during the pandemic when the government announced tax incentives for firms.

In Chapter 5, I investigate the relationship between political connections and the environmental performance of Sharia-compliant firms. I use a unique sample of firms covered by Indonesia's Program for Pollution Control Evaluation and Rating during 2013–2019. I find that political connections are less (more) valuable for Sharia-compliant firms (non-Sharia-compliant firms) in enhancing their environmental performance.

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My beloved wife Tin and my lovely children Madeeha and Sheehan.

Chapter 1

Introduction

1.1. Research Questions and Outline

Connections between corporations and politicians are prevalent worldwide (Faccio, 2006), representing a valuable resource for firms in emerging and developed countries, with advantages including preferential access to finance (Claessens et al., 2008). Consequently, literature on this topic has grown considerably over the last 20 years, especially since 2011, with an average annual growth rate of 27.76% (see Figure 1.1).[1] By combining bibliometric and content analysis (Khan et al., 2021), I identified that literature on political connections mainly investigates whether or not such connections are valuable.

Political connections have been found to be valuable in not only high-corruption countries (Brockman et al., 2013; Faccio, 2010) but also low-corruption countries such as Denmark, indicating that corruption is at least somewhat ubiquitous (Amore & Bennedsen, 2013). To deepen understanding of the nature of political connections, it would be interesting to investigate how they influence ethical investment,[2] especially as Sharia compliance prohibits engaging in corruption. This dissertation examines the relationship between political connections, Sharia compliance, and firms' financial and environmental performance. Specifically, I investigate whether:

1) political connections and Sharia compliance affect merger and acquisition (M&A) performance;

[1] I extracted the data from the Scopus database on December 6, 2021. Specifically, I ran a search of article titles and keywords for the terms "political connection" OR "political connectedness" OR "political relation*" OR "political link*" OR "political association" OR "politically connected." I then filtered the results by subject areas (economics, econometrics and finance; business, management and accounting), document type (articles and reviews), source type (journal), and language (English). This search yielded 631 articles published between 1917 and 2021. I then reviewed the title and abstract of each article to confirm its relevance (Bahoo, 2020). This produced a final sample of 616 papers published during 2001–2021.

[2] Ethical investment refers to an investment strategy in which the investor's ethical values (i.e., moral, religious, social) are the key objective, along with good returns.

2) connections to politicians affect market responses to firms' inclusion in or exclusion from the Indonesia Sharia Stock Index (ISSI);[3]
3) political connections and Sharia compliance have been valuable during the COVID-19 pandemic; and
4) political connections affect firms' environmental performance.

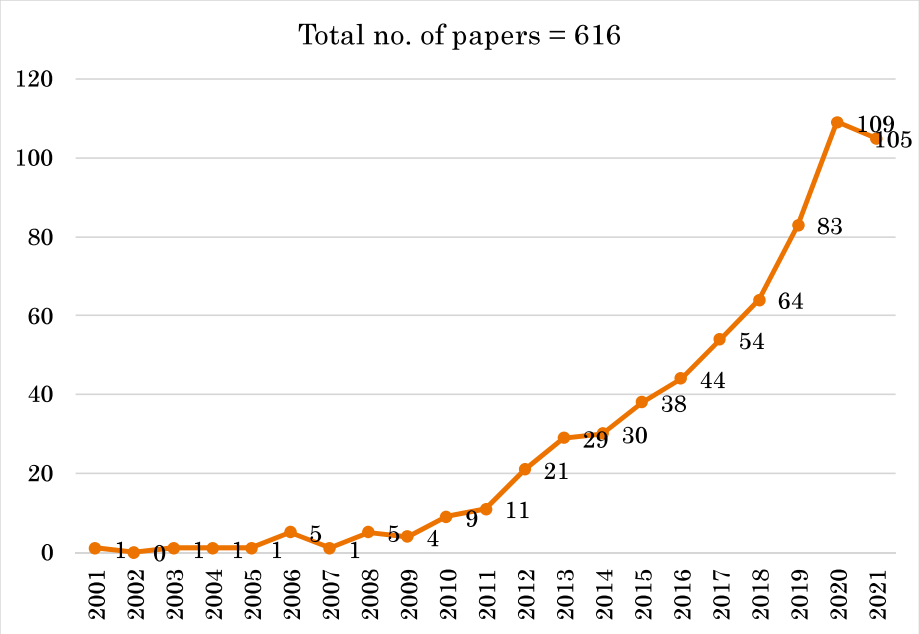
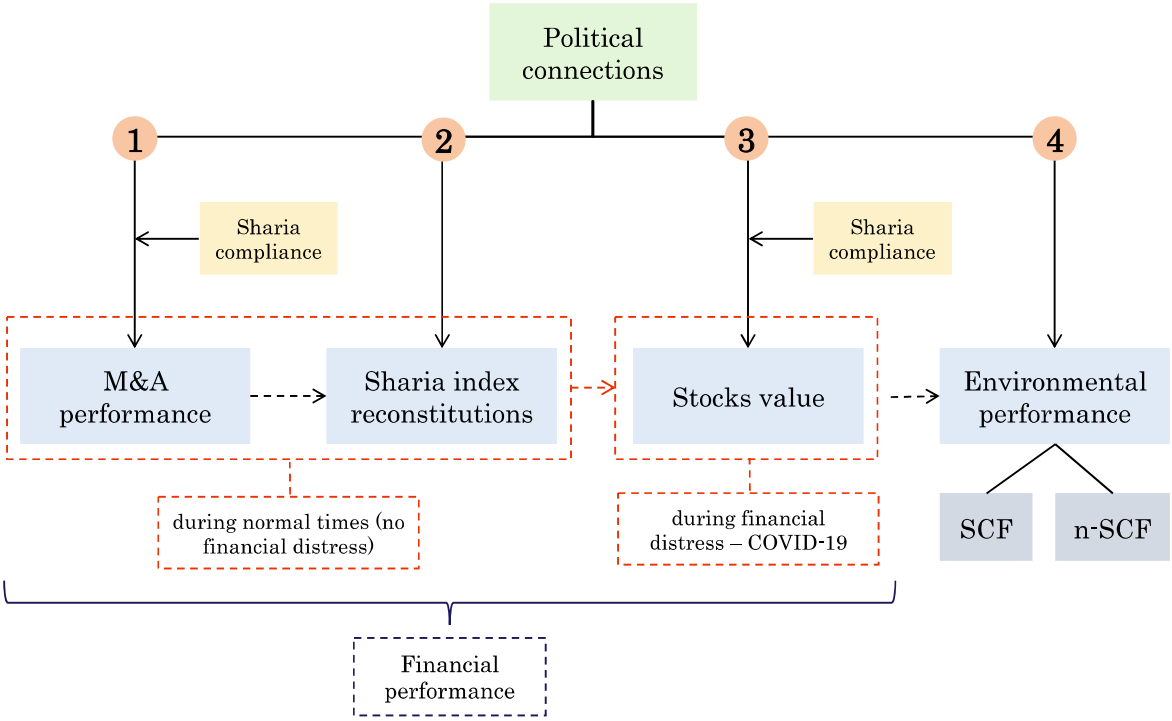


Figure 1. 1. Publication growth of political connections literature. Source: Scopus

This dissertation contributes to the political connections literature by examining the role of Sharia compliance in the relationship between political connections and firms' performance. In particular, I conducted four studies, which are reported in separate essays herein. Each essay is self-contained but interlinked in addressing the research topic. Figure 1.2 shows the links between the four essays. Generally, the results of one study motivated me to conduct the following study. For instance, the first two studies investigate how political connections and Sharia compliance affect firms' financial performance in normal times (no financial distress), and the results reveal that political connections are more (less) valuable for non-Sharia-compliant firms (Sharia-compliant firms). These findings provoke the question of whether political connections are valuable during financial distress. One previous study finds that connections to politicians were valuable during the 2008/2009 global financial crisis (Vukovic, 2021). However, the COVID-19 pandemic is unprecedented—it is

[3] The ISSI is introduced in Section 1.2.3.

unlike the global financial crisis or any previous outbreak of infectious disease (Baker et al., 2020). I thus conducted the third study to examine the value of political connections and Sharia compliance under the financial distress brought by the COVID-19 pandemic.



Note:
- SCF is Sharia-compliant firms, while n-SCF is non-Sharia-compliant firms.
- No. 1, 2, 3, and 4 denote the first, second, third, and fourth essays.

Figure 1. 2. Links between the four studies

In the first essay, I study the impact of political connections and Sharia compliance on M&A performance, contributing novel evidence to the literature. Political connections are closely related to corruption and bribery, which are both prohibited by Islamic law. I apply a standard event-study methodology to analyze market reactions to M&A announcements, which I use to measure M&A performance. I then investigate the impact of political connections and Sharia compliance on M&A performance using pooled regression analysis. This essay documents political connections as a valuable resource in enhancing both short- and long-term M&A performance. Conversely, I find that Sharia compliance is not significantly related to M&A performance and, interestingly, appears to mitigate the positive impact of political connections on M&A performance. In other words, market responses to M&A

tend to be lower for politically connected Sharia-compliant firms and higher for politically connected non-Sharia-compliant firms.

The second essay builds on the first essay by investigating whether political connections affect firms' value following their addition to or removal from the ISSI. I first conduct an event-study analysis to measure market reactions to firms' addition to and exclusion from the index. No abnormal returns are found following a change to firms' listed status, indicating that investors place no value on firms being added to or excluded from the ISSI. To more deeply investigate how political connections influence Sharia firms' value, I employ pooled regression analysis. The results show that political connections play an important role in creating value before a firm is added to the ISSI but cease to be beneficial after it is included in the index. These findings further support the results of my first study: in particular, political connections do not seem to benefit Sharia-compliant firms.

In the third essay, I examine the value of political connections and Sharia compliance during the COVID-19 pandemic—a period of financial distress. Using the event-study methodology, this study reveals that a stock market anomaly occurred during the present pandemic in that the Indonesian stock market reacted positively, with a more pronounced positive reaction for Sharia-compliant firms, both non-politically and politically connected. To deepen understanding, I employ pooled regression analysis, dividing the pandemic into several episodes: when the first case of COVID-19 was confirmed (March 2–4, 2020), when the first death caused by COVID-19 was confirmed (March 11–13, 2020), and when the government announced a stimulus package offering tax incentives for firms (March 26–30, 2020). I show that while political connections played no significant role during the COVID-19 pandemic in Indonesia, there is strong evidence that Sharia compliance was beneficial for firms when the government announced tax incentives.

The last essay investigates whether political connections are valuable for Sharia-compliant firms in terms of enhancing environmental performance. The results of my first three studies indicate that political connections do not enhance the financial performance of Sharia-compliant firms. Therefore, I analyze how political connections might influence corporate environmental performance. To form a sample of Sharia-compliant and non-Sharia-compliant firms with high potential impact on the environment, I select firms covered by the Program for Pollution Control Evaluation and Rating (PROPER). I use the PROPER rankings, assigned by

Indonesia's Ministry of Environment and Forestry, to measure corporate environmental performance. The PROPER rankings comprise five color codes—gold, green, blue, red, and black—indicating the best to the worst environmental performance. This study reveals that the influence of political connections on environmental performance is limited for Sharia-compliant firms but clearly positive for non-Sharia-compliant firms.

Overall, my results suggest that connections to politicians are a valuable resource for enhancing non-Sharia-compliant firms' financial and environmental performance. Conversely, Sharia-compliant firms do not seem to benefit from their political connections. There is a substitution relationship between political connections and Sharia compliance, such that Sharia compliance seems to mitigate the positive influence of political connections on firms' financial and environmental performance. However, during the crisis period of the COVID-19 pandemic, I find no evidence that political connections influence firms' financial performance, whereas being Sharia-compliant has been valuable.

1.2. Introduction to Sharia Compliance

In this dissertation, I employ the concept of Sharia compliance as one of the main variables. Several related terms are used, each of which is elaborated in this section.

1.2.1. Islamic law

Islamic law (or Sharia principles) encompasses the various legal systems created to assure alignment with the Islamic faith (Salaymeh, 2015). The three primary sources are the Quran,[4] *Sunnah*,[5] and *Ijtihad*.[6] Islamic law extends to all aspects of human life, [7] including economics, politics, law, etc. It applies to corporations in various domains, such as financing, investing, transactions, and risk management (Ahmed, 2009).

[4] The Quran is Islam's holy book, believed by Muslims to be a revelation from God to Prophet Muhammad (blessings and peace be upon him).
[5] The *Sunnah* comprises normative precedents derived from the sayings and acts of Prophet Muhammad (blessings and peace be upon him).
[6] The *Ijtihad* comprises independent interpretations by highly qualified scholars of matters not clearly mentioned in the Quran, Hadith (sayings and acts of Prophet Muhammad), or *Ijmaa'* (scholarly consensus).
[7] As mentioned in the Quran (6: 162): Say, "Surely, my prayer, my rites of sacrifice, my living and my dying are for Allah, Lord of the worlds."

1.2.2. Sharia-compliant firms

In this dissertation, I define Sharia-compliant firms as firms that issue Sharia stocks (included in the Indonesia Sharia Stock Index). Firms that wish to be deemed "Sharia-compliant" must undergo Sharia screening, which has been developed based on Islamic law. In principle, everything is allowed in trade and finance unless explicitly prohibited by Islamic law.[8] Consequently, Sharia screening applies some of these prohibitions. Sharia index providers execute Sharia screening, and they are bound by the stipulations of the respective supervisory body. Hence, the Sharia screening method varies across Sharia index providers.[9] Nevertheless, all Sharia index providers employ a common two-stage method, including qualitative and quantitative screening (Htay et al., 2013). Table 1.1. presents the definitions and criteria of Sharia screening in Indonesia.

Table 1. 1. Sharia screening in Indonesia.

	Qualitative/activity screening	Quantitative/financial screening
Definition	The qualitative parameters comprise activities that do not contravene Sharia principles.	The quantitative screening measures are implemented to ensure that the firm's financial ratios are tolerable.
Criteria	A firm should not conduct prohibited business activities such as: 1. selling food and drink containing alcohol, 2. selling pork-related products, 3. gambling, 4. taking bribes, 5. paying or charging interest, etc.	A firm must confirm that: 1. its total interest-based debt does not exceed 45% of total assets, and 2. its total interest income and non-*halal*[10] income does not exceed 10% of the combined total of operating income and other income.

Source: OJK Regulation No. 35/POJK.04/2017 on the Criteria and Issuance of the Sharia Securities List.

In Indonesia, the Sharia screening process is conducted by the Financial Services Authority (OJK) twice a year—in this regard, OJK is a Sharia index provider.[11] Public firms or issuers that pass Sharia screening are considered Sharia-compliant securities, and thus eligible for inclusion in the ISSI. Conversely, issuers that do not pass Sharia screening are classified as non-Sharia-compliant firms, and

[8] As narrated by Abu Hurairah: The Prophet Muhammad (blessings and peace be upon him) said that "Conciliation between Muslims is permissible, except the conciliation which makes lawful unlawful and unlawful lawful." (Sunan Abu Dawood No. 3594).
[9] For instance, while quantitative screening in Indonesia does not include restrictions on accounts receivable and cash (see Table 1.1), the Dow Jones Islamic Index screening criteria restrict both.
[10] *Halal* means permissible under Islamic law. The opposite of *halal* is *haram* (non-*halal*), meaning forbidden by Islamic law. Examples of non-*halal* activities include selling pork-related products and paying or charging interest.
[11] For more details, see https://idx.co.id/idx-syariah/indeks-saham-syariah/.

thus not eligible for inclusion in the ISSI. Only the stocks of Sharia-compliant firms can be traded in the Sharia stock market. Figure 1.3 illustrates the Sharia screening process in Indonesia.

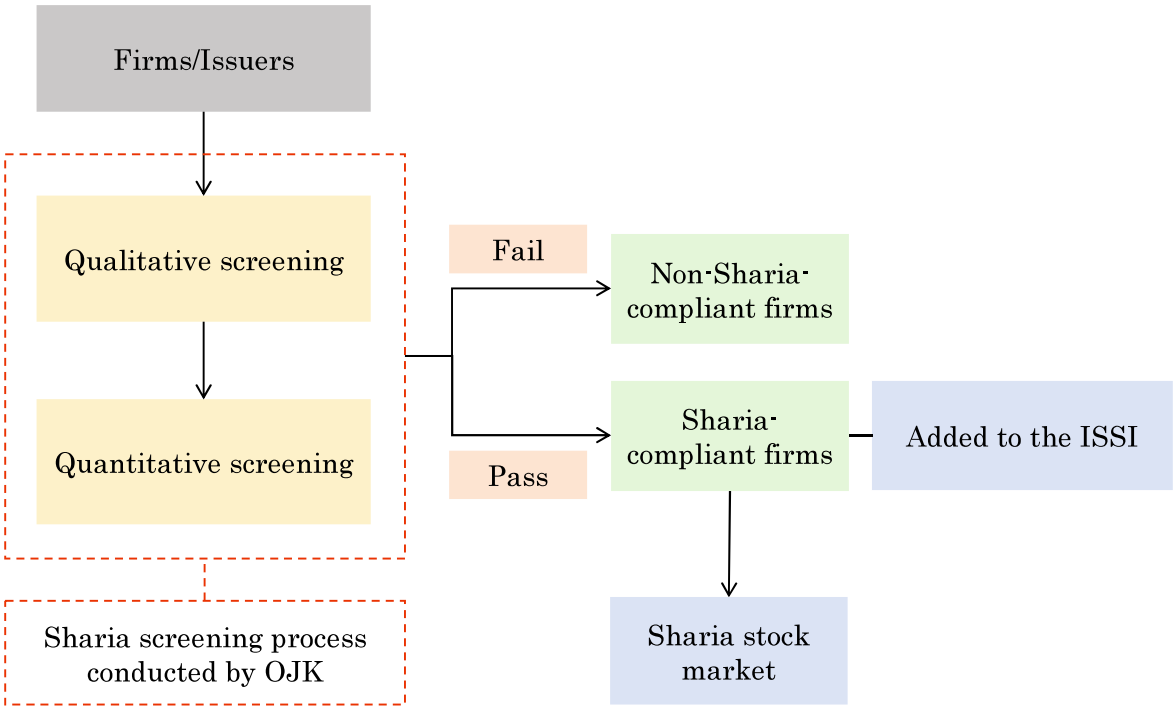


Figure 1. 3. Sharia screening process

1.2.3. Sharia stock market in Indonesia

As mentioned in Section 1.2.2, Sharia stocks are traded in the Sharia stock market. According to the Indonesia Stock Exchange (IDX),[12] the Sharia stock market encompasses all stock market activities that do not contradict Islamic law. Meanwhile, "Sharia index" or "Sharia stock index" refers to the grouping of Islamic stocks. There are four Sharia stock indexes in Indonesia:

1) Jakarta Islamic Index (JII) was launched by the IDX on July 3, 2000 as the first Sharia stock index in the Indonesian capital market; it includes only the 30 most liquid Sharia stocks listed on the IDX.
2) Indonesia Sharia Stock Index (ISSI) is a composite index of Sharia shares listed on the IDX; it serves as a performance indicator of Indonesia's Sharia stock market. The IDX launched the ISSI on May 12, 2011.

[12] For more details, see https://www.idx.co.id/idx-syariah/

3) Jakarta Islamic Index 70 (JII70) was launched on May 17, 2018. An extended version of the JII, it includes the 70 most liquid Sharia stocks listed on the IDX.
4) IDX-MES BUMN 17 was launched by the IDX and Masyarakat Ekonomi Syariah (MES, the Sharia Economic Community) on April 29, 2021. It measures the performance of 17 Sharia stocks of state-owned enterprises (SOEs), calculated based on their liquidity, market capitalization, and fundamentals.

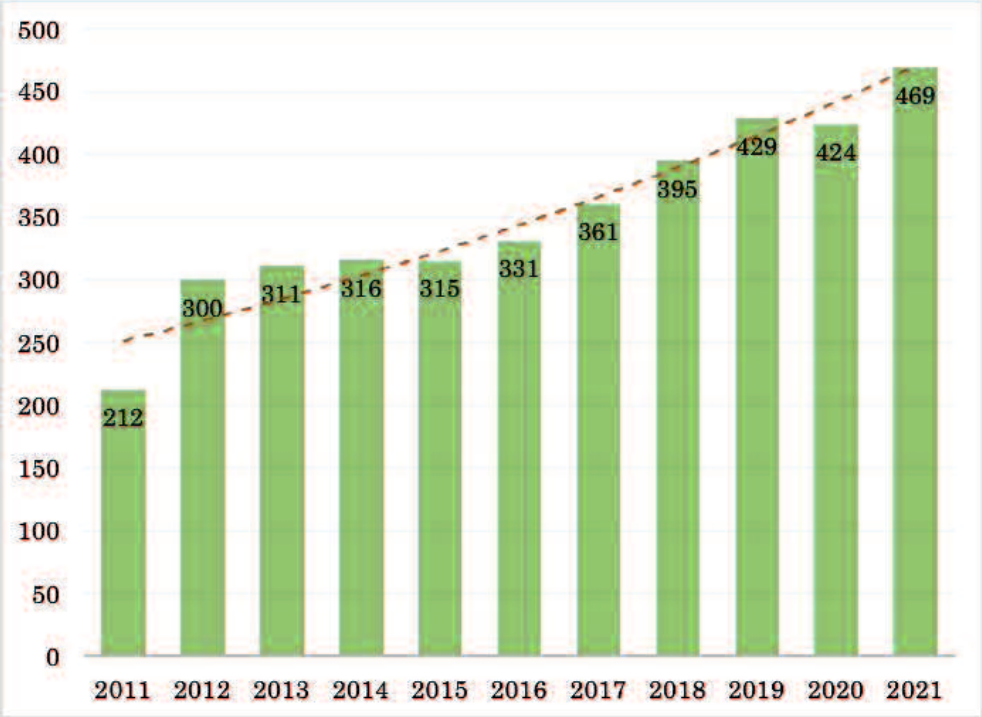


Figure 1. 4. The growth of Sharia-compliant firms in Indonesia. Source: IDX

Over the past decade (since the ISSI was established), Indonesia's Sharia stock market has grown substantially, indicating increasing popularity as an investment choice. The number of Sharia-compliant firms (listed on the ISSI) rose by 121.2% from 2011 to 2021 (see Figure 1.4). In addition, the number of investors in Sharia-compliant stocks was 99,383 in June 2021, representing a 15.7% increase on the number at year-end 2020 (OJK, 2021). Furthermore, the market capitalization of JII and ISSI increased by 42.42% and 102.41%, respectively, from 2011 to 2021 (see Figure 1.5).

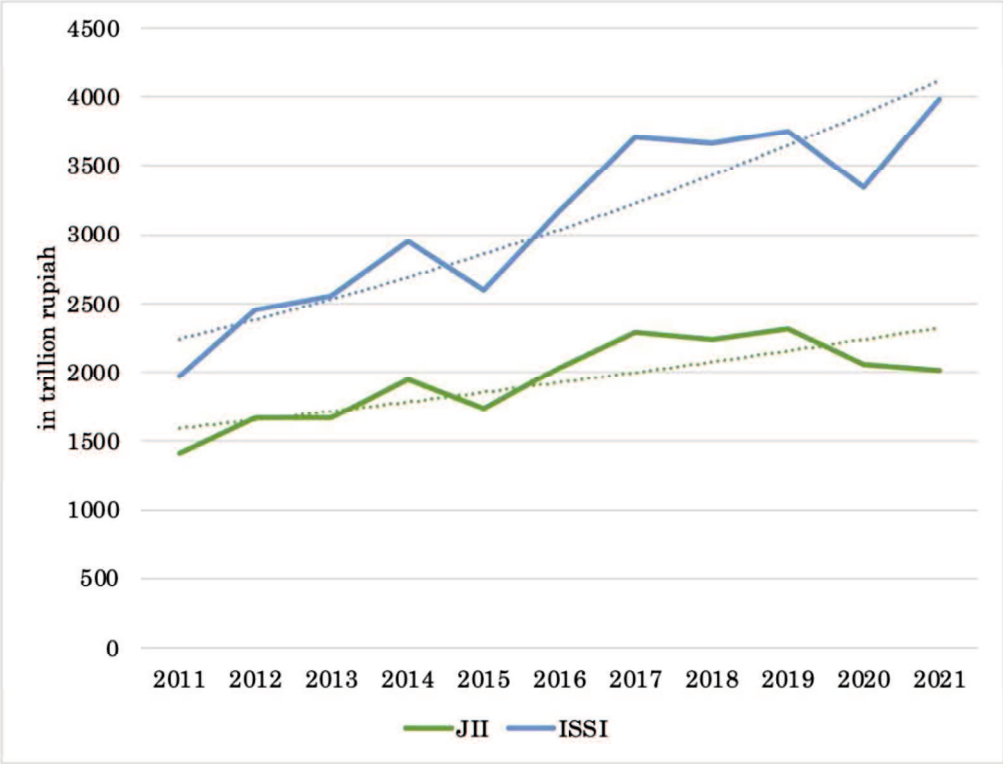


Figure 1. 5. JII and ISSI market capitalization growth. Source: OJK[13]

1.3. Theoretical Framework

This section elaborates the theoretical framework of the relationship between political connections and Sharia compliance. Both concepts are related to rent-seeking theory. The basic idea of rent-seeking was conceived by Tullock (1967), but the term was coined by Krueger (1974). Rent-seeking is an economic concept describing efforts by an individual or corporation to grow their wealth without contributing to society's prosperity. In essence, rent-seeking activities seek financial gains and benefits by manipulating the distribution of economic resources. Such acts are harmful to the economy and society. In addition, resources expended in pursuing these benefits are essentially wasted as they result in income and wealth redistribution, rather than creation (Hartle, 1983).

A firm is considered politically connected if its large shareholders[14] or top management are a) current or former members of parliament, b) current or former

[13] Retrieved from https://www.ojk.go.id/id/kanal/syariah/data-dan-statistik/saham-syariah/default.aspx.
[14] Large shareholders refer to shareholders with ownership of more than 10%.

ministers or heads of state, or c) in close relationships[15] with top officials (Faccio, 2006). Politically connected firms may have wider access to funding—they are more likely to be funded or bailed out by the government (Duchin & Sosyura, 2012; Faccio et al., 2006). In addition, firms connected to politicians receive higher government subsidies compared to non-connected firms (Wang & Lin, 2017; Wu et al., 2012). These subsidies are acquired by politically connected firms through rent-seeking from officials with capacity to allocate subsidy funds (Zhang et al., 2014).

Acquiring benefits from political connections through bribery and corruption is a form of rent-seeking behavior (Krueger, 1974). It is common for firms to engage in political rent-seeking activities in Indonesia (see Fisman, 2001). However, while these firms derive benefits (e.g., obtaining more subsidies), rent-seeking is harmful to the economy and society, for instance by aggravating inequality and thereby potentially inhibiting economic growth (Rodriguez, 2004).

Rent-seeking is a zero-sum game (altering only the distribution and not the size of overall wealth), which means one person's gain is another's loss. Such behavior is unlawful in Islamic economies (Mawdudi, 2013). Allah *Azza wa Jalla* (God Almighty) says in Al-Quran:

> O believers! Do not devour one another's wealth illegally, but rather trade by mutual consent. And do not kill [each other or] yourselves. Surely Allah is ever Merciful to you. And whoever does this sinfully and unjustly, We will burn them in the Fire. That is easy for Allah.
>
> (Al-Quran 4: 29-30)

Following prohibitions of *riba* (charging interest) and *risywah* (taking bribes) in Al-Quran (3: 130[16] and 2: 188[17], respectively), both types of activities are forbidden in Sharia stock screening.

Taken together, using rent-seeking to exploit connections with politicians may benefit firms. As mentioned in Section 1.1, political rent-seeking has been proven to be valuable in both high- and low-corruption countries, indicating that corruption is widespread. However, rent-seeking behavior is classified as an injustice and thus prohibited by Islamic law. There is, therefore, a contradiction between political rent-

[15] Either as a friend or well-known associate (Faccio 2006).
[16] "O believers! Do not consume interest, multiplying it many times over. And be mindful of Allah, so you may prosper."
[17] "Do not consume one another's wealth unjustly, nor deliberately bribe authorities in order to devour a portion of others' property, knowing that it is a sin."

seeking and Sharia compliance. While previous literature suggests that anti-corruption campaigns mitigate the value of political rent-seeking (Pan & Tian, 2020; Wang et al., 2018), I propose a theoretical framework incorporating both political rent-seeking and Sharia compliance. Whether Sharia compliance mitigates the value of political rent-seeking needs empirical investigation.

Chapter 2

Political Connections, Sharia Compliance, and M&A Performance

2.1. Introduction

Political connections play a significant role in creating value for firms (Fisman, 2001). However, they function as a double-edged sword: while political connections can provide various benefits for firms, especially through smoother and wider access to the government, they also entail risks, depending on the conditions for support demanded by politicians. For example, Fisman (2001) finds that politically connected firms lost significant value following the publication of bad news about the health of former Indonesian president Suharto. Furthermore, Liu et al. (2016) show that managers of some non-state-owned enterprises (non-SOEs) in China have connections with corrupt bureaucrats, whose arrest led to these non-SOEs losing competitive advantage in the M&A market.

Political connections are potentially associated with bribery and corruption. As Faccio (2006) reveals, political connections generally exist in countries with higher corruption and a weak legal system. As Islamic law forbids engaging in bribery and corruption, Sharia-compliant firms must carry out their business activities based on Islamic law or meet *halal* criteria.[18] This study empirically examines the relationship between political connections and both short- and long-term M&A performance in Indonesia, as well as the role of Sharia compliance in that relationship. I chose Indonesia for several reasons. First, it is the largest Muslim-populated country, and the number of Sharia-compliant firms in Indonesia has been rising (OJK, 2019). Second, Indonesia is among the most corrupt countries in the world, with corruption perception index (CPI)[19] scores of 37 in 2016, 37 in 2017, and 38 in 2018.[20] As

[18] *Halal* means permissible under Islamic law. Muslims are not allowed to make investments that do not meet *halal* criteria, such as investing in companies that sell alcohol, offer gambling services, take bribes, and pay or receive interest (Hayat & Hassan, 2017).
[19] Retrieved from Transparency International (https://www.transparency.org/en/cpi/2018).

Imamah et al. (2019) point out, the legal system and shareholder protection in Indonesia are weak.

Several studies focus on how political connections affect the stock market reaction to an M&A announcement. Zhao et al. (2019) find that political connections can increase short-term post-M&A returns in China. Liu & Zhang (2013), Liu et al. (2019), and Su et al. (2013) suggest that politically connected non-SOEs in China perform better than politically connected SOEs. Humphery-Jenner & Powell (2014) show that, in weak-governance countries, politically connected firms have a higher post-M&A stock return compared to non-connected counterparts. However, while their sample includes Indonesia, the literature still lacks empirical evidence on whether political connections improve market responses to M&A in that country.

Prior studies show that Sharia compliance improves firms' value. For example, Saad (2009) finds that Sharia compliance can boost firms' performance. Jaballah et al. (2018) find that firms in Muslim countries can receive positive stock market responses to the issue of Sharia shares owing to prevailing religious beliefs. Imamah et al. (2019) show that Sharia-compliant firms in Indonesia pay higher dividends than non-Sharia-compliant firms. Furthermore, Kamaludin & Zakaria (2019) show that investors in Sharia-compliant firms maintained long-term positive stock returns.

To the best of my knowledge, this study is the first to examine how Sharia compliance influences the relationship between political connections and M&A performance, both in the short and long term. Specifically, it addresses two research questions: 1) Do political connections improve firms' M&A performance? 2) Does Sharia compliance play a role in that relationship?

This study makes the following contributions. First, it extends the literature on Sharia-compliant firms. Previous studies focus on the relationship between Sharia compliance and firms' profits (Saad, 2009), dividend payouts (Imamah et al., 2019), and stock returns (Jaballah et al., 2018; Kamaludin & Zakaria, 2019). By contrast, this study focuses on the impact of Sharia compliance on both short- and long-term M&A performance. Second, this study extends the literature on how political connections affect M&A performance. Gao et al. (2019) examine corporate governance as a moderating variable in this relationship, while other studies, such as Humphery-Jenner & Powell (2014) and Zhao et al. (2019), use political connections as a moderating variable in the relationship between firm size and M&A performance.

[20] The CPI score ranges from 0 (highly corrupt) to 100 (very clean).

This study tests the moderating effect of Sharia compliance on the relationship between political connections and M&A performance.

The key empirical findings in this study are as follows. First, the results show that political connections improve M&A performance in both the short and long term, as politically connected firms have a higher market response to M&A compared to non-connected firms. Second, the impact of Sharia compliance on both short- and long-term M&A performance is statistically insignificant. Third, political connections reduce the market reaction to an M&A announcement for Sharia-compliant firms but improve the market reaction for non-Sharia-compliant firms. Put differently, I find a substitution relationship between Sharia compliance and political connections in terms of impact on M&A performance.

2.2. Literature Review

2.2.1. Political connections and M&A performance

Firms with political connections can receive various benefits, including access to capital, favorable government policies (Chui et al., 2002), and valuable information related to such policies (Wati, 2017). Furthermore, politically connected firms have higher corporate investment than non-connected firms in Malaysia (Phan et al., 2020).

Several regulations govern M&A in Indonesia. These include Government Regulation No. 27/1998, concerning merger, consolidation, and acquisition of limited liability firms, and Government Regulation No. 57/2010, covering the consolidation of business entities and takeover of firm shares that may result in monopolistic practices and unfair business competition. Indonesia also has government institutions with responsibility for M&A: for instance, the OJK oversees the financial services industry to protect the interests of consumers and the public, while the Commission for Supervision of Business Competition (KPPU) oversees business competition. Firms that carry out M&A must notify the KPPU in accordance with applicable regulations. Politically connected firms may be advantaged in M&A because they have greater access to the government. As Ferris et al. (2016) argue, politically connected firms have insider information on the merger process or the reviewing agencies' practices, and they can lobby current regulators to change the

regulatory outcome.[21] Ferris et al. (2016) investigate how political ties affect the merger process in the United States; they find that politically connected bidders are more likely to acquire targets and avoid regulatory delay or denial than non-politically connected counterparts.[22]

Previous studies indicate that political connections could play an important role in fostering M&A performance. Zhao et al. (2019) show that political connections have an economically significant positive influence on short-term M&A performance. Other studies, such as Liu & Zhang (2013), Liu et al. (2019), and Su et al. (2013), suggest that political connections increase the market response to M&A for non-SOEs. The impact of political connections is shaped by the conditions of a country's governance system. Brockman et al. (2013) show that, in high-corruption countries, politically connected firms gain higher abnormal returns than do non-connected peers. Similarly, Humphery-Jenner & Powell (2014) find that, in weak-governance countries, politically connected firms have greater M&A performance than non-connected firms. Indonesia is regarded as a country with high corruption. Although the role of political connections in M&A performance has not yet been empirically investigated in Indonesia, Fisman (2001) shows that political connections play an important role in determining firms' value. I argue that the political connections can enhance the market response to M&A in Indonesia. Thus, the study's first hypothesis is as follows:

Hypothesis 1. Political connections increase the market response to M&A announcement.

[21] Specifically, Ferris et al. (2016: 83) state that:

> The appointment of former regulators or politicians provides two major advantages to firms during the merger review process. First, these individuals might have insider information concerning the merger process or the practices of the reviewing agencies. The knowledge possessed by former government officials could help management structure a merger that avoids a second request or other adverse regulatory action. Their knowledge might also prove valuable should the regulatory agencies decide to alter or block the transaction. Second, former government officials might offer a firm the ability to network or lobby with current regulators or politicians who can influence the regulatory outcome.

[22] Note that under the Hart-Scott-Rodino Act, parties to some large mergers and acquisitions must provide a pre-merger notification to the US government. For more details, see: https://www.ftc.gov/advice-guidance/competition-guidance/guide-antitrust-laws/mergers/premerger-notification-merger-review-process.
As Indonesia has similar regulations on pre-merger notification, I argue that politically connected (vs. non-politically connected) firms in Indonesia may have more information on the merger review process, greater ability to lobby responsible agencies, and a higher likelihood of avoiding regulatory delay or denial.

2.2.2. Political connections, Sharia compliance and M&A performance

Firms that issue Sharia shares must not only carry out their business activities according to Sharia principles, or meet *halal* criteria, but also maximize shareholders' wealth (Safieddine, 2009). Imamah et al. (2019) find that, in Indonesia, investors get higher dividends from Sharia-compliant firms. The issuance of Sharia shares can be beneficial for firms. For example, Kamaludin & Zakaria (2019) show that investors in Sharia-compliant firms get high long-term stock returns. In addition, Saad (2009) finds that Sharia compliance increases firms' financial performance.

I expect Sharia-compliant (vs. non-Sharia-compliant) firms in a Muslim-majority country such as Indonesia to have more advantages. This is supported by Jaballah et al. (2018), who find that issuing Sharia shares in Muslim-majority countries leads to a positive stock market reaction. Because of their religious beliefs, Indonesian investors may react positively following the M&A announcement of a Sharia-compliant firm. Thus, the study's second hypothesis is as follows:

Hypothesis 2. Sharia compliance increases the market response to an M&A announcement.

Political connections are closely related to corruption. For example, Liu et al. (2016) show that non-SOEs in China establish political connections through bribery, thereby gaining access to the M&A market and, in turn, achieving higher abnormal returns. Islamic law forbids engaging in bribery and corruption. As discussed above, Sharia-compliant firms must strictly adhere to Islamic law. On the one hand, Sharia-compliant firms may seek to avoid matters prohibited by Islamic law or with the potential to lead to prohibited activities. If so, Sharia-compliant firms might be more reluctant to establish political connections. On the other hand, non-Sharia-compliant firms may be tempted to actively establish political connections for the purpose of obtaining more benefits. Thus, the study's third hypothesis is as follows:

Hypothesis 3. Political connections reduce the market response to an M&A announcement for Sharia-compliant firms but increase that response for non-Sharia-compliant firms.

2.3. Methodology

2.3.1. Data and sample construction

This research uses secondary data at the firm level. The list of firms conducting M&A was taken from the KPPU. The date of each M&A announcement was taken from the firms' official websites (press releases), annual reports, and online newspapers. Stock prices and composite stock index data were collected from Yahoo! Finance, and political connections data were manually gathered from firms' annual reports. Sharia shares data were obtained from the IDX. There were 322 M&A deals over the 2010–2016 period. I selected the sample based on the following criteria:

1) acquirer firms must be listed on the IDX;
2) deals are excluded if the acquirer or acquired firm is in the financial sector;
3) firms that conducted M&A more than once in a three-month period are excluded;[23]
4) firms with missing data are excluded.

The final sample comprises 48 observations from 40 firms (unbalanced panel data).

2.3.2. Variables

This section describes the dependent variable, independent variables, and control variables. All variables used in the study are listed and defined in Table 2.1.

2.3.2.1. Dependent variable

M&A performance is used as the dependent variable. It is measured by the value created by the M&A deal for the acquirer. This study analyzes both short- and long-term M&A performance. Previous studies generally use the cumulative abnormal return (CAR) to measure the short-term market responses to M&A announcements (Gao et al., 2019; Su et al., 2013; Zhao et al., 2019). I use an event-study methodology to compute the CAR for each acquirer firm. Abnormal returns are calculated as the difference between actual and expected returns. This study uses an estimation window of 150 trading days before the event date [–180, –30] and an event window of 4 days before and after the event date [–4, 4]. As a supplementary analysis, this research also measures long-term M&A performance using the buy-and-hold

[23] Four firms in the sample conducted more than one M&A but in periods exceeding three months.

abnormal return (BHAR) with an event window of 36 months after the M&A announcement.

Table 2. 1. Variable names and definitions.

Variable	Definition
A. Independent variables	
Political connections (PC)	A dummy variable equal to 1 if the firm is politically connected, and 0 otherwise.
Sharia compliance (SC)	A dummy variable equal to 1 if the firm issues Sharia shares, and 0 otherwise.
B. Dependent variable	
CAR	Cumulative abnormal return (short-term M&A performance) with estimation window [–180, –30] and event window [–4, 4]. Following Brown & Warner (1985), I use ordinary least squares (OLS) market model to calculate abnormal returns: $A_{i,d} = R_{i,d} - \alpha_i - \beta_i R_{m,d}$ where $A_{i,d}$ is the abnormal return for security i at day d; $R_{i,d}$ is the observed arithmetic return for security i at day d; α is intercept; β is the slope; and $R_{m,d}$ is the return on the IHSG (Composite Stock Price Index) for day d. CAR is the sum of abnormal returns ($A_{i,d}$) between d = –4 and d = 4: $CAR_{i,d} = \sum_{d=-4}^{4} A_{i,d}$
C. Control variables	
Firm size (FS)	Natural logarithm of total assets.
Leverage (LV)	The sum of total short-term and total long-term debt divided by total assets.
ROA	Return on assets, measured as the ratio of net income divided by total assets.
Risk	The daily stock return standard deviation in the event window [–60, –1] before the M&A announcement (Gao et al., 2019)
Growth	The growth rate of the firm's total assets over the last fiscal year

2.3.2.2. Independent variables

There are three independent variables, as described below.

2.3.2.2.1. Political connections

My measurement of political connections follows previous studies. According to Faccio (2006), Fu et al. (2017), and Habib et al. (2017), a firm is considered as politically connected if any large shareholder (over 10% ownership) or top manager is a) a current or former member of parliament, b) a current or former minister or head of

state, or c) closely connected[24] to a top official. Political connections data were manually collected from each firm's annual reports.

2.3.2.2.2. Sharia compliance

Following Imamah et al. (2019), Sharia compliance is measured simply by whether a firm issues Sharia shares. Data on firms' issuance of Sharia shares were obtained from several sources: the ISSI, for firms announcing an M&A before May 12, 2011 (when the ISSI was first published), and the Sharia Securities List (DES)[25] and the JII, for firms announcing an M&A before that date.

2.3.2.3. Control variables

This study uses five control variables that may impact on market responses to M&A: firm size, leverage, return on assets (ROA), risk, and growth. I use firm size because Zhao et al. (2019) find that the acquirer firm's size is negatively correlated with the short-term market response to an M&A announcement. According to Ma et al. (2012) and Maloney et al. (1993), M&A performance is influenced by leverage. Therefore, it is necessary to control for leverage. Firms with better performance have more ability to conduct M&A (Zhao et al., 2019), so I control for the influence of firms' ROA on market responses to M&A announcements. Following Gao et al. (2019), I control for firms' risk because it signals relative stability or instability. Finally, I control for firms' growth because firms with higher growth potential can elicit a greater market response to M&A announcements (Gao et al., 2019). Data for firm size, leverage, ROA, and growth are taken from the firms' financial or annual reports, while risk is estimated as the standard deviation of daily stock returns.

2.3.3. Empirical model

I employ a pooled regression analysis to examine the impact of political connections and Sharia compliance on M&A performance, calculated as follows:

$$CAR_{i,t} = \alpha + \beta_1 PC_{i,t} + \beta_2 PC_{i,t} * SC_{i,t} + \beta_3 SC_{i,t} + \beta_4 Controls_{i,t} + \varepsilon_{i,t}, \quad (1)$$

[24] As a friend or well-known associate (Faccio, 2006).
[25] DES is issued regularly by OJK.

where $CAR_{i,t}$ is the cumulative abnormal return around the M&A announcement; $PC_{i,t}$ is political connections; $SC_{i,t}$ is Sharia compliance; $Controls_{i,t}$ represents the control variables (FS, LV, ROA, Risk, and Growth); and $\varepsilon_{i,t}$ is the error term; meanwhile the subscripts i and t respectively represent the cross-sectional and time dimensions[26] of the unbalanced panel data. At the outset, I check multicollinearity and heteroscedasticity. In the multicollinearity test results, all variance inflation factor (VIF) scores are under 10; hence, I conclude that there is no multicollinearity (see Table A.1 in the Appendix). Furthermore, in the Breusch-Pagan heteroscedasticity test results, the *p*-value exceeds 5%, which means that heteroscedasticity is not a significant problem in this analysis.

2.4. Results and Discussions

2.4.1. Descriptive statistics

Descriptive statistics are reported in Table 2.2. I divide the sample into four subsamples: politically connected, non-politically connected, Sharia compliant, and non-Sharia compliant. Subsequently, I conduct independent sample t-tests to check the mean differences between subsamples. The mean value of CAR for the whole sample is –0.005, indicating that the market reaction to an M&A announcement is negative on average. The t-test results show that CAR is only significantly different between politically connected firms and their non-connected peers: specifically, politically connected firms have a higher market response to an M&A announcement.

2.4.2. Multivariate analysis

The regression results for the relationship between political connections, Sharia compliance, and market responses to M&A are exhibited in Table 2.3.

2.4.2.1. The impact of political connections on M&A performance

Column (1) of Table 2.3 shows that political connections have a positive impact on the market response to M&A, statistically significant at the 1% level. This result indicates that politically connected firms achieve higher CAR than their non-

[26] The time dimensions (t) denotes when the M&A was announced.

connected peers. Political connections evidently play an important role in creating value for firms through M&A. Thus, Hypothesis 1 is supported.

Table 2. 2. Descriptive statistics.

Variable	Mean					Difference	
	All sample	Politically Connected	non-Politically Connected	Sharia	non-Sharia	t-test 1	t-test 2
CAR	–0.005	0.007	–0.036	–0.002	–0.015	–2.285**	–0.778
FS	29.904	30.009	29.650	29.847	30.077	–1.317	0.794
LV	0.463	0.476	0.430	0.439	0.534	–0.770	1.530
ROA	8.535	9.124	7.106	9.471	5.728	–0.625	–1.115
Risk	0.024	0.023	0.027	0.025	0.022	1.392	–0.846
Growth	0.442	0.434	0.462	0.506	0.248	0.140	–1.255
Obs.	48	34	14	36	12		

Note: ** p < 5% (two-tailed). T-test 1 analyzes the difference between politically connected firms and non-connected peers on CAR, FS, LV, ROA, risk, and growth. T-test 2 analyzes the difference between Sharia-compliant and non-Sharia-compliant firms on the same variables.

2.4.2.2. The impact of Sharia compliance on M&A performance

Column (2) of Table 2.3 presents the regression result for the impact of Sharia compliance on the market response to M&A: the coefficient is positive but not statistically significant. Jaballah et al. (2018) suggest that investors in Muslim countries positively respond to firms that issue Sharia shares. However, my expectation that Sharia compliance increases the market response to an M&A announcement (relative to that for non-Sharia-compliant firms) is not supported by the analyzed evidence. Thus, Hypothesis 2 is rejected.

2.4.2.3. The joint effect of Sharia compliance and political connections

This section examines the moderating impact of Sharia compliance on the relationship between political connections and market responses to M&A. Column (3) of Table 2.3 displays the regression results for the interaction between political connections and Sharia compliance on M&A performance. While political connections and Sharia compliance each have a significantly positive effect on market responses to M&A, the coefficient on their interaction (PC * SC) reveals a significantly negative effect. This finding indicates a substitution effect between political connections and Sharia compliance: Sharia-compliant firms do not benefit from political connections in

terms of their M&A performance. One plausible explanation is that Sharia-compliant firms tend to be careful and passive in establishing political connections, whereas non-Sharia-compliant firms are not obliged to comply with Islamic law and so can actively make political connections with a view to receiving benefits. The results indicate that market responses to M&A are typically lower for politically connected Sharia-compliant firms but higher for politically connected non-Sharia-compliant firms. Thus, Hypothesis 3 is supported.

Table 2. 3. The relationship between political connections, Sharia compliance and M&A performance.

Variable	(1) CAR [–4, 4]	(2) CAR [–4, 4]	(3) CAR [–4, 4]
Intercept	–0.2584	–0.3570	–0.2276
	(0.2743)	(0.2991)	(0.2555)
PC	0.0478***		0.1235***
	(0.0156)		(0.0320)
SC		0.0183	0.0848***
		(0.0178)	(0.0291)
PC * SC			–0.0925**
			(0.0350)
FS	0.0094	0.0135	0.0057
	(0.0095)	(0.0103)	(0.0089)
LV	–0.0992**	–0.0783	–0.0946**
	(0.0430)	(0.0476)	(0.0406)
ROA	–0.0018**	–0.0016*	–0.0018**
	(0.0008)	(0.0008)	(0.0007)
Risk	0.0541	–0.5150	0.5339
	(0.6817)	(0.7310)	(0.6717)
Growth	–0.0073	–0.0069	–0.0100
	(0.0122)	(0.0134)	(0.0114)
Obs.	48	48	48
R^2	0.3070	0. 1690	0.4317

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The values in brackets are standard errors.

2.4.3. Supplementary analysis

2.4.3.1. The long-term M&A performance

In this section, I analyze whether political connections and Sharia compliance impact on long-term M&A performance, measured by BHAR and with an event window of 36 months after the M&A announcement. I adapt the formulas used by Barber & Lyon (1997) and Gao et al. (2019) as follows:

$$BHAR_{i,d} = \prod_{d=0}^{d}(1 + R_{i,d}) - \prod_{d=0}^{d}(1 + R_{benchmark,d})$$

where $R_{i,d}$ is the realized return of security i at day d, and $R_{benchmark,d}$ denotes the market return (IHSG) at day d. The mean market-adjusted BHAR is defined as:

$$\overline{BHAR} = \frac{1}{n}\sum_{d=0}^{d} BHAR_{i,d}$$

I repeat the main regression analysis using BHAR as the dependent variable. As there is heteroscedasticity in all regression models, I use robust standard errors in each model. The results for the impact of political connections and Sharia compliance on long-term M&A performance are presented in Table 2.4.

The results in Table 2.4 show that political connections play a significant role in long-term post-M&A performance. Politically-connected firms outperform non-connected firms in long-term M&A abnormal returns. Politically-connected firms may have more resources and capacity from their connections, which are important in the M&A integration process. Further findings show that Sharia compliance has no significant impact on long-term M&A performance. However, there is a substitution effect between political connections and Sharia compliance in long-term M&A abnormal returns. Similar to short-term performance, Sharia-compliant firms with political connections may tend to make a passive connection. In addition, politically-connected non-Sharia-compliant firms might make an active connection with the government and receive higher market responses.

Table 2. 4. The impact of political connections and Sharia compliance on long-term M&A performance.

Variable	(1) BHAR (36)	(3) BHAR (36)	(4) BHAR (36)
Intercept	1.0455***	0.9910***	1.0851***
	(0.2696)	(0.3134)	(0.2794)
PC	0.0347**		0.0905***
	(0.0158)		(0.0295)
SC		–0.0101	0.0391*
		(0.0158)	(0.0228)
PC * SC			–0.0685**
			(0.0308)
FS	0.0018	0.0012	–0.0045
	(0.0093)	(0.0111)	(0.0098)
LV	–0.0458	–0.0413	–0.0532
	(0.0549)	(0.0575)	(0.0531)
ROA	–0.0018**	–0.0016*	–0.0018**
	(0.0008)	(0.0009)	(0.0008)
Risk	0.8706	0.5657	1.3331*
	(0.6650)	(0.6509)	(0.7099)
Growth	0.0290	0.0314	0.0291
	(0.0201)	(0.0202)	(0.0202)
Obs.	48	48	48
R^2	0.2698	0.1944	0.3297

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The values in brackets are heteroscedasticity-robust standard errors.

2.4.3.2. Another alternative event window

Following Zhao et al. (2019), to check the sensitivity of the market response to M&A, I analyze CAR in another alternative event window [–3, 3]. Table 2.5 presents the results. The results using CAR in event window [–3, 3] are very similar to those for CAR in event window [–4, 4]: political connections are positively related to M&A performance, while the coefficient on Sharia compliance is statistically insignificant. Furthermore, Sharia compliance still negatively moderates the relationship between political connections and M&A performance, as the "PC * SC" interaction has a significantly negative coefficient.

Table 2. 5. Results of analysis using another alternative event window.

Variable	(1) CAR [–3, 3]	(3) CAR [–3, 3]	(4) CAR [–3, 3]
Intercept	–0.3240	–0.3859	–0.2883
	(0.2725)	(0.2851)	(0.2620)
PC	0.0323**		0.1008***
	(0.0154)		(0.0328)
SC		0.0057	0.0658**
		(0.0170)	(0.0299)
PC * SC			–0.0839**
			(0.0359)
Firm Size	0.0117	0.0144	0.0083
	(0.0094)	(0.0098)	(0.0092)
Leverage	–0.0897**	–0.0786*	–0.0905**
	(0.0426)	(0.0454)	(0.0416)
ROA	–0.0015*	–0.0013*	–0.0015**
	(0.0008)	(0.0008)	(0.0007)
Risk	0.2478	–0.1064	0.7326
	(0.6771)	(0.6966)	(0.6889)
Growth	0.0078	0.0087	0.0064
	(0.0121)	(0.0128)	(0.0117)
Obs.	48	48	48
R^2	0.1916	0.1077	0.2932

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The values in brackets are standard errors. The p-value of the Breusch-Pagan test exceeds 5%, implying there is no heteroscedasticity problem in the models.

2.4.3.3. Adding and reducing variables

I conducted additional tests by adding and omitting control variables to check the stability of the main variables. As reported in Table 2.6, the results show that the coefficients of the main variables remain stable in each additional test.

Table 2. 6. Additional tests adding and removing control variables.

Model 1	(1)	(3)	(3)	(4)	(5)	(6)
	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]
Intercept	–0.0356***	–0.0823	–0.2259	–0.3168	–0.3158	–0.2584
	(0.0130)	(0.2516)	(0.2657)	(0.2513)	(0.2551)	(0.2743)
PC	0.0429***	0.0424**	0.0432***	0.0474***	0.0473***	0.0478***
	(0.0155)	(0.0160)	(0.0157)	(0.0148)	(0.0154)	(0.0156)
FS		0.0016	0.0073	0.0114	0.0114	0.0094
		(0.0085)	(0.0092)	(0.0087)	(0.0088)	(0.0095)
LV			–0.0623	–0.1024**	–0.1022**	–0.0992**
			(0.0412)	(0.0415)	(0.0424)	(0.0430)
ROA				–0.0019**	–0.0019**	–0.0018**
				(0.0007)	(0.0007)	(0.0008)
Risk					–0.0307	0.0541
					(0.6618)	(0.6817)
Growth						–0.0073
						(0.0122)
Obs.	48	48	48	48	48	48
R^2	0.1429	0.1435	0.1858	0.3009	0.3009	0.307
Model 2	(1)	(3)	(3)	(4)	(5)	(6)
	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]
Intercept	-0.0153	–0.2184	–0.3321	–0.4288	–0.4085	–0.3570
	(0.0151)	(0.2691)	(0.2851)	(0.2769)	(0.2791)	(0.2991)
SC	0.0136	0.0151	0.0111	0.0153	0.0173	0.0183
	(0.0175)	(0.0177)	(0.0179)	(0.0173)	(0.0175)	(0.0178)
FS		0.0068	0.0115	0.0156	0.0153	0.0135
		(0.0089)	(0.0098)	(0.0096)	(0.0097)	(0.0103)
LV			–0.0529	–0.0872*	–0.0816*	–0.0783
			(0.0452)	(0.0461)	(0.0468)	(0.0476)
ROA				–0.0017**	–0.0017**	–0.0016*
				(0.0008)	(0.0008)	(0.0008)
Risk					–0.5835	–0.5150

					(0.7121)	(0.7310)
Growth						–0.0069
						(0.0134)
Obs.	48	48	48	48	48	48
R^2	0.0130	0.0253	0.0548	0.1504	0.1638	0. 1690
Model 3	(1)	(3)	(3)	(4)	(5)	(6)
	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]	CAR [–4, 4]
Intercept	–0.0983***	–0.0774	–0.1962	–0.2969	–0.3038	–0.2276
	(0.0267)	(0.2425)	(0.2545)	(0.2374)	(0.2393)	(0.2555)
PC	0.11060***	0.1112***	0.1117***	0.1142***	0.1220***	0.1235***
	(0.0309)	(0.0321)	(0.0317)	(0.0293)	(0.0319)	(0.0320)
SC	0.0798**	0.0801**	0.0757**	0.0787***	0.0826***	0.0848***
	(0.0301)	(0.0306)	(0.0304)	(0.0281)	(0.0289)	(0.0291)
PC * SC	–0.0866**	–0.0871**	–0.0868**	–0.0844**	–0.0916**	–0.0925**
	(0.0351)	(0.0360)	(0.0356)	(0.0328)	(0.0349)	(0.0350)
FS		–0.0007	0.0042	0.0087	0.0084	0.0057
		(0.0082)	(0.0088)	(0.0083)	(0.0084)	(0.0089)
LV			–0.0560	–0.0948**	–0.0991**	–0.0946**
			(0.0400)	(0.0393)	(0.0401)	(0.0406)
ROA				–0.0019***	–0.0020***	–0.0018**
				(0.0007)	(0.0007)	(0.0007)
Risk					0.4219	0.5339
					(0.6573)	(0.6717)
Growth						–0.0100
						(0.0114)
Obs.	48	48	48	48	48	48
R^2	0.2627	0.2629	0.2957	0.4147	0.4206	0.4317

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The values in brackets are standard errors. The p-value of the Breusch-Pagan test exceeds 5%, implying there is no heteroscedasticity problem in the models.

2.5. Conclusions

This study examined the impact of political connections and Sharia compliance on M&A performance. I investigated how political connections affect the market response to an M&A deal announcement and the role of Sharia compliance in this relationship. Below, I summarize the main findings.

First, investors responded more positively to M&A deal announcements by politically connected (vs. non-politically connected) firms. Firms with political connections have more resources (e.g., easier access to capital) and the ability to deal with government policies. Accordingly, investors might expect a politically connected firm to obtain greater value from an M&A deal. In other words, political connections function as a resource enabling firms to benefit more from M&A activity.

Second, Sharia-compliant firms with political connections tend to receive lower market responses to M&A announcements, whereas politically connected non-Sharia-compliant firms receive higher market responses. It is plausible that Sharia-compliant firms tend to be passive and more careful in establishing political connections, as they must not carry out business activities or transactions contrary to Islamic law; consequently, they are not perceived by investors as likely to benefit from access to government, which is reflected in lower market responses to M&A deals. By contrast, non-Sharia-compliant firms can actively make political connections and thereby obtain more benefits.

Third, the relationships observed in the short term also hold in the long term. Political connections play a significant role in long-term M&A performance, reflecting the resources and capacity firms derive from these connections, which are important in the post-M&A integration process. Furthermore, there is a substitution effect between political connections and Sharia compliance with respect to long-term M&A performance: Sharia compliance reduces the positive relationship between political connections and M&A performance in the long term. The results indicate that Sharia-compliant firms remain consistently cautious and inflexible in establishing political connections, and thus do not benefit from them.

This study has several limitations that future research could seek to address. First, the analysis period spans only seven years (2010–2016): the KPPU first published a list of firms conducting M&A in 2010, and I use 2016 as the final year for assessing long-term M&A performance. Future research should examine a longer period to better understand the relationship between political connections, Sharia

compliance, and M&A performance. Second, my sample includes only firms in Indonesia, so the results may differ in Sharia stock markets in other countries. It would be useful to extend this study by investigating these other markets.

Chapter 3

Do Political Connections Affect the Market Response to Sharia Index Reconstitutions?

3.1. Introduction

The literature on the effects of political connections (Brockman et al., 2013) is expanding rapidly. Moreover, this subject has long been a topic of debated (Wang et al., 2018). Some scholars show that political connections improve firm value (Ang et al., 2013; Boubakri, Guedhami, et al., 2012; Faccio, 2006; Goldman et al., 2009) and that politically connected firms outperform non-connected firms (Brockman et al., 2013). Other scholars argue that political connections decrease firm value (Liu et al., 2018) and that politically connected firms perform worse than non-politically connected firms (Boubakri et al., 2008; Faccio et al., 2006). One study found that firm value initially increases at a lower level of political connections before then decreasing at a higher level as rent-seeking begins to outweigh the benefits (Chen et al., 2017). However, while the shareholder advantages and disadvantages of political connections are documented comprehensively, evidence on the role of political connections in ethical investment is scarce. This study fills this gap by investigating whether political connections affect market responses to ethically screened stocks (i.e., stocks screened for Sharia compliance). Specifically, I seek to ascertain the effects of political connections on firm value following a firm's inclusion in or exclusion from the ISSI.

Several reasons motivate my interest in political connections and Sharia index reconstitutions in Indonesia. First, on the one hand, approximately 87% of Indonesia's population is Muslim. Moreover, in recent years, Indonesia has witnessed substantial growth in Sharia shares (OJK, 2019). Furthermore, previous studies suggest that the inclusion of a firm in the Sharia index benefits firms (e.g., Jaballah et al., 2018; Mazouz et al., 2019; Sherif & Lusyana, 2017). On the other hand, political connections also significantly contribute to creating value for Indonesian

firms (see Fisman, 2001; Fu et al., 2017; Leuz & Oberholzer-Gee, 2006). Both Sharia compliance and political connections seem to be valuable resources for Indonesian firms. However, having ties to politicians and benefiting a select group could potentially contravene Islamic law (Habib et al., 2017). It is, thus, unclear whether political connections benefit Sharia-compliant firms, and investigating this issue is of practical importance.

Second, to be regarded as Sharia-compliant (and thus eligible for inclusion in the Sharia index), a firm must undergo qualitative and quantitative screening processes [27] (Rahim & Masih, 2016). There are several conflicts between having political connections and the Sharia screening criteria. Politically connected firms have higher levels of debt (Chkir et al., 2020) and leverage (Faccio, 2010) compared to non-connected firms. Sharia screening does not allow a firm to have high debt, especially if interest-based. Moreover, several financial criteria for entering the Sharia index require low indebtedness. Political connections may also indicate opportunistic behavior by the firm's board (Jagolinzer et al., 2020), political connections can facilitate opportunism by firm insiders.[28] The Sharia index's financial ratio screening constrains opportunistic behavior by firm boards (Farooq & AbdelBari, 2015).

This study makes three contributions to the literature. First, to the best of my knowledge, no prior study has examined the relationship between political connections and firm value for Sharia-compliant firms. Although some studies have examined the impact of political connections in Muslim-majority countries and considered their institutional environments (Belghitar et al., 2019; Habib et al., 2017), I specifically investigate how political connections affect the value of a firm following its inclusion in or exclusion from the ISSI. Second, whereas previous studies have examined stock performance after a firm is included in or excluded from the Sharia index (e.g., Jaballah et al., 2018; Mazouz et al., 2019), this study investigates the role of political connections in the market reaction to Islamic index reconstitutions. Third, complementing the recent finding of a substitution effect

[27] For detailed information about Sharia screening, see Section 1.2.

[28] Opportunism refers to taking advantage of opportunities or circumstances. In this regard, Jagolinzer et al. (2020) investigate the relationship between political connections and informed trading (one form of opportunism) during the financial crisis of 2007/2008. Specifically, they examine insider trades in the 30-day window before Troubled Asset Relief Program infusions. They find that politically connected insiders had an information advantage and traded to take advantage of it, anticipating the market reaction to the infusion. The authors thus conclude that political connections can promote corporate insiders' engagement in opportunistic behavior.

between political connections and Sharia compliance on M&A performance (Wahyono, 2021), this study examines how political connections influence the market reaction to a firm's inclusion in or exclusion from the ISSI.

I draw significant conclusions from my findings. First, politically connected firms benefit from their connections before entering the ISSI. However, after entering the ISSI, they tend to lose these benefits. Furthermore, I find no evidence of a relationship between political connections and the market reaction regarding the exclusion of a firm from the ISSI. Second, further analysis shows that strong political connections can significantly increase firm value before they enter the ISSI. However, strong connections to politicians are not advantageous when it comes to Sharia-compliant firms and can even harm their value. My evidence is robust to a battery of sensitivity analyses, such as using industry and year dummies (to control for any cross-sectional differences between firm sectors and changes in market conditions that affect all firms) and using a longer estimation window to calculate abnormal returns.

This paper proceeds as follows. Section 3.2 presents a review of the literature on political connections and Sharia compliance. Section 3.3 describes my research method, including data and sample screening, the evaluation of key variables, and the empirical model. Section 3.4 presents the results of the event study methodology, regression tests, and several additional analyses. In conclusion, Section 3.5 provides the concluding remarks, implications, and limitations of this study.

3.2. Literature Review

This study bridges two distinct bodies of literature: the literature on political connections and that on faith-based investment (i.e., Sharia compliance). The connections between politicians and firms are based on mutually beneficial relationships (Habib et al., 2017). For example, firms support politicians by participating in campaigns and fundraising for politicians during elections (Miettinen & Poutvaara, 2014; Rosser & Edwin, 2010), as well as helping incumbent politicians get re-elected (Bertrand et al., 2018). From the firm's perspective, politically connected firms obtain more government subsidies (Wu et al., 2012) and receive more government bailouts (Faccio et al., 2006) than non-connected firms. Furthermore, political connections increase a firms' access to capital (Claessens et al., 2008) and

government procurement contracts (Boubakri, Cosset, et al., 2012; Goldman et al., 2013).

Despite their mutually beneficial relationships, political connections are likely a double-edged sword for firms. On the one hand, politically connected firms get positive market responses (Goldman et al., 2009), enjoy a lower cost of equity capital and cost of debt (Boubakri, Guedhami, et al., 2012; Chaney et al., 2011; Houston et al., 2014), pay lower taxes (Faccio, 2010; Hassan et al., 2012), and have higher performance and value (Ang et al., 2013; Boubakri, Cosset, et al., 2012; Boubakri, Guedhami, et al., 2012; Faccio, 2006). On the other hand, politically connected firms have a higher stock price crash risk owing to information asymmetry between managers and investors (Fang et al., 2020), poorer quality accounting information (Chaney et al., 2011), lower investment efficiency (Chen et al., 2011), and lower value and performance (Boubakri et al., 2008; Faccio et al., 2006; Liu et al., 2018).

Notwithstanding the foregoing, our understanding of whether political connections benefit Sharia-compliant firms remains poor. I argue that having connections to politicians may have a different impact on Sharia-compliant firms than on non-Sharia-compliant firms. My argument is based on several contradictions between political connectedness and Sharia screening, both quantitatively and qualitatively.

First, there is a contradiction between political ties and Sharia's quantitative screening. Previous studies show that politically connected firms have a greater ability to borrow from state-owned banks (Boubakri, Cosset, et al., 2012; Fu et al., 2017). Therefore, politically connected firms tend to have higher debt levels than firms that lack political connections (Chkir et al., 2020). Conversely, Sharia screening prohibits firms from having high debt levels. For instance, in the case of Indonesia, according to an OJK regulation,[29] Sharia screening requires that firms meet the following financial ratios: a) their total interest-based debt compared with their total assets should not exceed 45%, and b) their total interest income and non-*halal* income compared with their total operating income and other income should not exceed 10%. Additionally, Sharia-compliant firms are characterized by lower leverage (Hayat & Hassan, 2017).

Second, there is a contradiction between political connectedness and Sharia's qualitative screening. Close ties with politicians may expose politically connected

[29] OJK Regulation Number 35/POJK.04/2017 on the Criteria and Issuance of the Sharia Securities List.

firms to the potential for involvement in corruption and bribery. Faccio (2006) states that politically connected firms generally exist in and obtain larger benefits from connections in corrupt countries. Another study by Liu et al. (2016) shows that non-state-owned enterprises (SOEs) in China establish political connections through bribery. Furthermore, politically connected firms in Indonesia are more likely to obtain import licenses from the government based on corrupt or nepotistic political relationships with politicians (Mobarak & Purbasari, 2006). Needless to say, political connections closely related to corruption and bribery are in potential contradictions with the Islamic law. In the context of Sharia screening in Indonesia, for instance, a firm must not conduct business activities or transactions that are contrary to the Islamic law, such as giving bribes (*risywah*), gambling (*maisir*), charging interest (*riba*), or becoming exposed to excessive uncertainty (*gharar*). Additionally, Sharia-compliant firms must conduct their business by indulging in activities that are *halal only* and based on ethical behavior (Hassan & Harahap, 2010).

In conjunction, political connections benefits are likely through unethical investments contrary to Sharia principles that is higher firms' leverage and closely related to corruption. Particularly, Sakti et al. (2020) suggest that leverage significantly contributes to enhancing the performance of politically connected non-Sharia-compliant firms. Meanwhile, in the context of corruption and bribery, political connections are valuable resources for firms to enhance their outcomes through corrupt political ties (see Fisman, 2001; Mobarak & Purbasari, 2006). In contrast, Sharia screening is intended to rule out unethical practices, such as paying or charging interest, bribery, and corruption. Furthermore, Wahyono (2021) finds that compliance with Sharia weakens the value of political connections. Therefore, I conjecture that political connections play a dominant role in determining the value of firms before their inclusion in the Sharia index. However, after being included in the Sharia index, having ties to politicians may not benefit firms. Based on this argument, I propose the following hypothesis:

Hypothesis 1. (*H1*): Political connections are more (less) valuable for firms before (after) their inclusion in the Sharia index (i.e., before becoming Sharia-compliant firms).

The exclusion of firm from the Sharia index means that firms do not pass Sharia screenings (i.e., they become non-Sharia-compliant firms) and that they have no obligation to adhere to Islamic principles. It is reasonable to suppose that after getting excluded from the Sharia index, firms can actively establish connections with politicians, to benefit from their ties. Non-Sharia-compliant firms connected to politicians have higher flexibility in seeking financing avenues without Sharia restrictions (Sakti et al., 2020). As mentioned earlier, in developing the first hypothesis (*H1*), political ties are closely related to corruption and bribery. Corruption may benefit companies by cutting red tape and speeding up project execution (Boland, 2019). Without Sharia control, politically connected firms may have more chances to build connections with corrupt politicians. Hence, I posit the following second hypothesis:

Hypothesis 2. (*H2*): Political connections are valuable for firms after their exclusion from the Sharia index (i.e., after becoming non-Sharia-compliant firms).

3.3. Research Methods

3.3.1. Data and sample screening

I used a sample of non-financial firms included or excluded from the ISSI over the period from 2011 through 2018. I chose 2011 as the start of the sample period because the ISSI was launched on May 12, 2011. A total of 162 firms (228 observations) were included in the ISSI, while 142 firms (194 observations) were excluded from the ISSI over this period. Detailed information about the inclusion or exclusion of firms in or from the ISSI data is issued by the Indonesia Stock Exchange (IDX) twice a year. I documented the daily stock price movement surrounding that information. Data on political connections were extracted manually from firms' annual reports, firms' official websites, and *Forbes* magazine). Meanwhile, other related financial data were collected from the IDX and Osiris databases.

3.3.2. Variable measurements

3.3.2.1. Dependent variable: Cumulative abnormal return (CAR)

I rely on the event study methodology to investigate the market reaction following the inclusion or exclusion of firms in or from the ISSI. My estimation window is 120

trading days (MacKinlay, 1997), that is, from −140 to −20 days before the day of the event. To calculate the expected returns, I use the basic market model as follows:

$$R_{i,d} = \alpha_i + \beta_i R_{m,d} + \varepsilon_{i,d}, \quad (3.1)$$

where $R_{i,d}$ is the return for security i at day d and $R_{m,d}$ is the market return. I further determine the abnormal return by calculating the difference between the actual and expected returns. I then calculate the CAR using the following specification:

$$CAR[d_1, d_2] = \sum_{d=d_1}^{d_2} A_{i,d}. \quad (3.2)$$

Furthermore, I checked the significance of the CAR using a *t*-test[30]. If the CAR is significantly different from zero, the event is considered to have significantly affected stock prices. I divide my sample into two sub-samples: politically connected firms and non-politically connected firms. In conclusion, I examine the impact of the Sharia index reconstitution on each subsample.

3.3.2.2. Independent variable: Political connections

I define political connections as firms with connections with politicians. Specifically, following Faccio (2006) and Habib et al. (2017), a firm is considered politically connected if it is state-owned or if the larger shareholders (ownership of more than 10%) or top management are currently or formerly a) members of parliament, b) ministers or heads of local government, or c) people who have close relationships[31] with top officials. Political connections are dummy variables that is equal to 1 if the firm is politically connected and 0 otherwise.

3.3.2.3. Control variables

I include several control variables that may potentially affect firm value following its inclusion or exclusion from the ISSI, namely, firm size, leverage, return on assets (ROA), risk, growth, and firm age. I calculate firm size by taking the natural logarithm of the total assets. Leverage is measured as the sum of total short-term and total long-term debt divided by total assets. ROA is calculated as the ratio of net income to total assets. I measure risk using the daily stock return standard deviation

[30] There is a skewness bias in my data. Therefore, following Lyon et al. (1999), to eliminate the skewness bias, I use a bootstrapped skewness-adjusted *t*-test in my analysis.
[31] Relationships are classified as friends or well-known associates who are connected with a political party (Faccio, 2006).

[−60, −1] before the inclusion and exclusion of a firm in and from the ISSI. I use the growth rate of the firm's total assets over the last fiscal year (growth). In conclusion, I use firm age, which is the difference between a firm's incorporation date and the date of its inclusion or exclusion from the ISSI.

3.3.3. Empirical model

I conduct a panel data regression analysis (using the pooled method) to examine the impact of political connections on the market reaction following the inclusion and exclusion of firms in and from the ISSI. The regression estimation model is as follows:

$$CAR_{i,t} = \alpha + \beta_1 PC_{i,t} + \beta_2 Controls_{i,t} + \varepsilon_{i,t}, \quad (3.3)$$

where CAR is the cumulative abnormal return around the announcement of an ISSI reconstitution; $PC_{i,t}$ is political connections (i.e., a dummy variable equal to 1 if a politically connected firm and 0 otherwise); $Controls_{i,t}$ are the control variables, which include firm size (FS), leverage (LV), ROA, risk, growth, and firm age (FA); $\varepsilon_{i,t}$ is the error term. The subscripts i and t respectively represent the cross-sectional and time dimensions [32] of the unbalanced panel data.

3.4. Results and Discussion

3.4.1. Descriptive statistics and correlation matrix

First, I present the descriptive statistics in Table 3.1. I divide each sample into two groups, namely, politically connected and non-politically connected firms. The mean differences in firm size and firm age between politically connected firms and non-connected firms are significant at the 1% and 10% levels, which means that politically connected firms are larger and older than non-connected firms. Furthermore, Table 3.2 shows the correlation matrix among the variables. Generally, the findings indicate that the correlations between the variables are small. Additionally, the VIF values are less than 10 (see Table B.1 in the Appendix). Therefore, multicollinearity was not a concern in my dataset.

[32] The time dimensions (t) denotes when the ISSI reconstitution was announced.

Table 3. 1. Descriptive statistics.

Variable	Mean						Difference	
	Addition to ISSI			Deletion from ISSI			*t*-test 1	*t*-test 2
	All	PCF	n-PCF	All	PC	n-PC		
FS	28.3970	28.9978	27.9906	28.4442	29.0899	28.0877	–4.8866***	–4.3686***
LV	0.5248	0.5317	0.5201	0.5847	0.5358	0.6116	–0.3282	0.6916
ROA	2.6863	1.8605	3.2448	–2.0661	0.8237	–3.6613	0.8721	–1.3344
Risk	0.0293	0.0283	0.0300	0.0383	0.0428	0.0358	0.6002	–0.5001
Growth	0.4541	0.1972	0.6278	6.9418	0.1627	10.6838	1.2368	0.8077
FA	29.7412	33.0109	27.5294	27.4278	30.1594	25.9200	–2.8822***	–1.9319*
Obs.	228	92	136	194	69	125		

Note: *** $p < 1\%$, * $p < 10\%$ (two-tailed). PCF is politically connected firms, while n-PCF is non-politically connected firms. The *t*-test shows the difference between politically connected firms and non-connected peers on firm size (FS), leverage (LV), ROA, risk, growth, and firm age (FA); *t*-test 1 indicates addition to the ISSI, while *t*-test 2 indicates deletion from the ISSI.

Table 3. 2. Correlation matrix.

	PC	FS	LV	ROA	Risk	Growth	FA
Addition to ISSI							
PC	1						
FS	0.3091*	1					
LV	0.0218	–0.0382	1				
ROA	–0.0631	0.1239	–0.2982*	1			
Risk	–0.0399	–0.0765	–0.0019	–0.0195	1		
Growth	–0.0681	–0.0736	0.0124	0.2038*	0.1720*	1	
FA	0.2013*	0.0856	0.0861	0.0464	–0.0833	–0.0063	1
Deletion from ISSI							
PC	1						
FS	0.3007*	1					
LV	–0.0499	–0.0972	1				
ROA	0.0959	0.2153*	–0.5995*	1			
Risk	0.0361	–0.0335	0.0309	0.0917	1		
Growth	–0.0582	–0.0750	–0.0046	0.0070	–0.0324	1	
FA	0.1381	0.1375	–0.0607	–0.0292	–0.0893	–0.0873	1

Note: * Indicates statistical significance at the 1% level. PC is political connections, FS is firm size, LV is leverage, and FA is firm age. The correlation is based on a full sample, i.e., 228 observations and 194 observations for addition to and deletion from the ISSI, respectively.

3.4.2. Event study

In this section, I perform an event study analysis to investigate firm value following their inclusion or exclusion in or from the ISSI for both politically connected and non-

politically connected firms. I use the short-window market reaction to the announcement of an inclusion or exclusion from the ISSI, as a proxy for the extent to which the reconstitutions surprised the market. I divide my event window into before the announcement of an ISSI reconstitution (i.e., [−10, 0], [−5, 0], and [−3, 0]) and after the announcement (i.e., [0, +3], [0, +5], and [0, +10]). The results of the event study analysis are listed in Table 3.3.

Table 3. 3. The impact of inclusion and exclusion in and from the ISSI on firm value.

Panel A. The impact of inclusion in the ISSI on firms' value			
Event window	Full sample [228]	PCF [92]	n-PCF [136]
[−10, 0]	−0.0072	0.0106	−0.0192**
	(−0.9737)	(0.8231)	(−2.2310)
[−5, 0]	0.0027	0.0195*	−0.0087
	(0.4491)	(1.7612)	(−1.2977)
[−3, 0]	0.0024	0.0203*	−0.0097**
	(0.4598)	(1.9217)	(−2.1004)
[0, +3]	0.0067	0.0199	−0.0023
	(1.0480)	(1.5588)	(−0.3633)
[0, +5]	0.0042	0.0165	−0.0041
	(0.5372)	(1.0317)	(−0.5373)
[0, +10]	−0.0058	−0.0022	−0.0084
	(−0.8118)	(−0.1768)	(−0.9428)
Panel B. The impact of exclusion from the ISSI on firms' value			
Event window	Full sample [194]	PCF [92]	n-PCF [136]
[−10, 0]	−0.0264*	−0.0164	−0.0319
	(−2.0365)	(−1.1622)	(−1.7187)
[−5, 0]	−0.0142*	−0.0114	−0.0157
	(−1.8204)	(−1.0520)	(−1.4916)
[−3, 0]	−0.0085	−0.0051	−0.0104
	(−1.4815)	(−0.5507)	(−1.4159)
[0, +3]	−0.0076	−0.0044	−0.0093
	(−1.3295)	(−0.7116)	(−1.1410)
[0, +5]	−0.0132	−0.0122	−0.0138
	(−1.6233)	(−1.1496)	(−1.2265)
[0, +10]	−0.0222	−0.0097	−0.0291
	(−1.6287)	(−0.7047)	(−1.4728)

Note: ** Significantly different from 0 at $p < 5\%$; * significantly different from 0 at $p < 10\%$ (two-tailed). PCF is politically connected firms; n-PCF is non-politically connected firms.

Table 3.3 summarizes the CARs surrounding the announcement of inclusions in or exclusions from the ISSI. The results show that the market reacted insignificantly to firms that were included or excluded from the ISSI for all samples, suggesting that investors generally pay little attention to ISSI reconstitutions. Interestingly, regarding the inclusion of firms in the ISSI, before the event date, politically

connected firms have significantly positive abnormal returns. However, after the event date, politically connected firms had insignificant abnormal returns. These findings indicate that political connections are more valuable for firms before they are added to the ISSI. Nevertheless, politically connected firms are likely to lose the benefits of their connections after being included in the ISSI. These results support my hypotheses. Nevertheless, I still need further identification–using regression analysis–to test the significance of my research hypotheses (see Section 3.4.3).

3.4.3. Regression analysis

I then conduct a pooled regression analysis to further enhance my identification of the relationship between political connections and the value of Sharia-compliant firms. Specifically, I investigate the impact of political connections on firm value before and after the reconstitution of the ISSI. I use the CAR before the event date (i.e., [−10, 0]) and CAR after the event date (i.e., [0, +10]) as the dependent variables. Using a fairly long event window is sufficient to see the information content of the ISSI reconstitution announcement.

At the outset, I conduct the Breusch–Pagan test to check for heteroscedasticity (see Table B.2 in the Appendix). The Breusch–Pagan test results confirm that there is a heteroscedasticity problem in my estimation. Therefore, I report heteroscedasticity-robust standard errors in my estimation results to address any heteroscedasticity issues.

Table 3.4 presents the results of the regression analysis using Equation (3.3). Column (1) of Table 3.4 suggests that political connections significantly impact CAR [−10, 0] at the 10% level. Meanwhile, Column (2) of Table 3.4 shows an insignificant positive impact of political connections on CAR [0, +10]. The results from my regression estimations are consistent with the event study analysis. Particularly, the results suggest that political connections play an important role in enhancing firm values before entering the ISSI. However, after entering the ISSI, politically connected firms no longer benefit from their connections. In other words, before being Sharia compliant, the benefits of having connections to politicians seem to outweigh their costs. However, after being included in the ISSI (i.e., becoming Sharia compliant), the benefits of political connections do not outweigh their costs.

Table 3. 4. Political connections and Sharia-compliant firms' value.

Variable	Addition to the ISSI		Deletion from the ISSI	
	(1)	(2)	(3)	(4)
	CAR [−10, 0]	CAR [0, +10]	CAR [−10, 0]	CAR [0, +10]
Intercept	−0.1093	0.1252	4.48e−02	4.28e−01
	(0.0948)	(0.1186)	(2.30e−01)	(2.66e−01)
PC	0.0274*	0.0125	2.41e−02	3.77e−02
	(0.0152)	(0.0159)	(2.85e−02)	(2.93e−02)
FS	0.0048	−0.0011	−2.37e−03	−1.62e−02*
	(0.0035)	(0.0040)	(8.65e−03)	(9.70e−03)
LV	0.0149	−0.0301	1.19e−02	9.07e−03
	(0.0245)	(0.0263)	(8.03e−03)	(1.15e−02)
ROA	−0.0009	−0.0007	−3.07e−04	1.60e−04
	(0.0007)	(0.0010)	(5.47e−04)	(8.05e−04)
Risk	−0.4244	−0.8865***	−6.21e−01***	−5.56e−01***
	(0.4539)	(0.2970)	(5.99e−02)	(6.68e−02)
Growth	−0.0050	−0.0075**	1.26e−05	1.09e−05
	(0.0034)	(0.0031)	(1.39e−05)	(2.18e−05)
FA	−0.0012**	−0.0019**	1.46e−04	4.61e−04
	(0.0005)	(0.0007)	(4.74e−04)	(5.84e−04)
Obs.	228	228	194	194
R^2	0.0864	0.1506	0.1144	0.0923

Note: *** p < 1%, ** p < 5%, and * p < 10%. The figures in brackets are heteroscedasticity-robust standard errors.

These results are reasonable owing to several contradictions between political connections and Sharia screening. Particularly, Chkir et al. (2020) suggest that politically connected firms have higher leverage levels than their non-connected counterparts. Conversely, Sharia screening prohibits firms from having high levels of interest-based debt. Additionally, Sharia-compliant firms tend to have lower leverage (Hayat & Hassan, 2017). Another contradiction is from the qualitative Sharia screening perspective. Based on qualitative Sharia screening, Sharia-compliant firms are not allowed to engage in bribery or corruption. In contrast, politically connected firms are more likely to be involved in corruption and bribery (Faccio, 2006; Liu et al., 2016).

I control for leverage in the regression analysis. Therefore, interestingly, the positively significant (insignificant) impact of political connections on firm value before (after) entering the ISSI is not driven by the degree of the firms' leverage. Hence, the plausible interpretation is that this may be driven by qualitative Sharia screening (i.e., related to corruption and bribery). Corruption and bribery cases involving politically connected firms are common in Indonesia (see Apriliyanti & Kristiansen, 2019; Mobarak & Purbasari, 2006). Conversely, firms included in the

ISSI have met the criteria set out by the OJK and act in accordance with Islamic principles. Sharia screening prohibits firms from engaging in corruption or bribery in their business activities. Politically connected Sharia-compliant firms (i.e., after being included in the ISSI) may be passive and pay little attention to political connections, to reduce the risk of violating Islamic law. Hence, it is plausible that having ties to politicians may not benefit Sharia-compliant firms. Overall, my findings support the first hypothesis (*H1*), which states that political connections are more (less) valuable for firms before (after) their inclusion in the Sharia index.

Columns (3) and (4) of Table 3.4 show the impact of political connections on firm values before and after their exclusion from the ISSI. The results show that political connections have an insignificant positive impact on CAR [−10, 0] and CAR [0, +10]. I would expect that after being deleted from the ISSI, firms would benefit more from their connections because their abnormal returns seem to increase (see Table 3.3). Nevertheless, I find no evidence of the impact of political connections on firm value before or after exclusion from the ISSI. Therefore, the second Hypothesis (*H2*) was rejected.

3.4.4. Additional analysis

I employ several additional tests to check the robustness and specific identification of the results of my main analysis. My additional analysis includes controlling for industry and year dummies, categorizing political connections, and using longer estimation windows to calculate expected returns.

3.4.4.1. Industry and year dummies

I include both industry and year dummies in my regression estimation as follows:

$$CAR_{i,t} = \alpha + \beta_1 PC_{i,t} + \beta_2 Controls_{i,t} + DUM_{Industry} + DUM_{Year} + \varepsilon_{i,t}, \quad (3.4)$$

This dummy structure is an important feature of my regression model. First, industry dummy control for any cross-sectional differences between firm sectors (e.g., mining; agriculture; basic industry and chemicals; and property, real estate, and building construction). Second, year dummy control for changes in market conditions that affect all firms over a given period (i.e., the time of the ISSI reconstitution announcement).

Table 3. 5. Political connections and Sharia-compliant firms' value: Controlling for industry and year dummies.

Variable	Addition to the ISSI		Deletion from the ISSI	
	(1)	(2)	(3)	(4)
	CAR [−10, 0]	CAR [0, +10]	CAR [−10, 0]	CAR [0, +10]
Intercept	−0.0917	1.54e−02	−5.3385e−02	4.20e−01*
	(0.1115)	(1.06e−01)	(2.03e−01)	(2.29e−01)
PC	0.0277*	1.56e−02	2.21e−02	3.73e−02
	(0.0150)	(1.58e−02)	(2.34e−02)	(2.50e−02)
FS	0.0065*	−7.92e−04	3.38e−03	−1.60e−02**
	(0.0033)	(3.38e−03)	(6.87e−03)	(7.56e−03)
LV	−0.0011	−1.63e−02	6.29e−03	3.21e−03
	(0.0227)	(2.59e−02)	(1.05e−02)	(1.27e−02)
ROA	−0.0012*	−4.57e−05	−4.05e−04	5.89e−05
	(0.0007)	(1.13e−03)	(5.95e−04)	(7.76e−04)
Risk	−0.4568	−9.11e−01***	−6.72e−01***	−5.64e−01***
	(0.4173)	(3.04e−01)	(7.07e−02)	(7.55e−02)
Growth	−0.0042	−7.77e−03**	1.06e−06	1.02e−05
	(0.0036)	(3.53e−03)	(3.18e−05)	(3.74e−05)
FA	−0.0011**	−1.57e−03**	1.23e−04	7.21e−04
	(0.0005)	(6.63e−04)	(5.68e−04)	(6.78e−04)
Industry	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
Obs.	228	228	194	194
R^2	0.1836	0.2198	0.1973	0.1706

Note: *** p < 1%, ** p < 5%, and * p < 10%. The figures in brackets are heteroscedasticity-robust standard errors.

I estimate Equation (3.4), and the results are displayed in Table 3.5. The results of Table 3.5 indicate that my inferences remain stable and robust after adding industry and year dummies. Thus, my main results are not driven by changing market conditions during the ISSI reconstitution period and the industry differences.

3.4.4.2. Categorizing political connections

I examine the impact of specific types of political connections on the value of Sharia-compliant firms. Previous studies (e.g., Faccio 2006, 2010; Khwaja & Mian, 2005) indicate that the strength of political ties affects the advantages firms derive from them. Following Boubakri et al. (2012), I categorize political connections according to whether they are connections to the government (e.g., president, ministers, or head of local government), members of parliament, or close relationships with top politicians. I constructed the regression estimation as follows:

$$CAR_{i,t} = \alpha + \beta_1 GOV_{i,t} + \beta_2 MP_{i,t} + \beta_3 CR_{i,t} + \beta_4 Controls_{i,t} + DUM_{Industry} + DUM_{Year} + \varepsilon_{i,t}, \quad (3.5)$$

where $GOV_{i,t}$ denotes the connection to the government, $MP_{i,t}$ denotes a connection to a member of parliament, and $CR_{i,t}$ denotes a close relationship with a top politician.

Table 3. 6. Political connections and the value of Sharia-compliant firms: Categorizing political connections.

Variable	Addition to the ISSI		Deletion from the ISSI	
	(1)	(2)	(3)	(4)
	CAR [−10, 0]	CAR [0, +10]	CAR [−10, 0]	CAR [0, +10]
Intercept	−0.0999	−0.0117	−6.86e−02	3.96e−01*
	(0.1120)	(0.1046)	(1.98e−01)	(2.26e−01)
GOV	0.0293**	0.0166	2.15e−02	3.50e−02
	(0.0147)	(0.0177)	(2.42e−02)	(2.58e−02)
MP	0.0492	−0.0159	−8.61e−03	−2.79e−02
	(0.0446)	(0.0267)	(2.73e−02)	(3.25e−02)
CR	−0.0172	−0.0608*	−1.71e−02	−7.19e−03
	(0.0261)	(0.0318)	(4.49e−02)	(4.98e−02)
FS	0.0070**	0.0005	4.03e−03	−1.49e−02**
	(0.0034)	(0.0033)	(6.67e−03)	(7.43e−03)
LV	0.0050	−0.0191	6.04e−03	2.77e−03
	(0.0210)	(0.0266)	(1.07e−02)	(1.28e−02)
ROA	−0.0011	−0.0001	−3.98e−04	7.14e−05
	(0.0007)	(0.0011)	(5.95e−04)	(7.72e−04)
Risk	−0.4915	−0.9736***	−6.76e−01***	−5.72e−01***
	(0.4179)	(0.3085)	(6.99e−02)	(7.50e−02)
Growth	−0.0043	−0.0078**	−2.47e−07	6.15e−06
	(0.0036)	(0.0035)	(3.14e−05)	(3.72e−05)
FA	−0.0011**	−0.0015**	1.17e−04	7.20e−04
	(0.0005)	(0.0006)	(5.61e−04)	(6.62e−04)
Industry	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
Obs.	228	228	194	194
R^2	0.1977	0.2310	0.1971	0.1693

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$. The figures in brackets are heteroscedasticity-robust standard errors.

Table 3.6 presents the regression results after splitting the political connections into three types (GOV, MP, and CR). Columns (1) and (2) of Table 3.6 show the results of the impact of political connections on market reactions to the inclusion of firms in the ISSI. Before the event date, connections to the government have a significant positive impact on CAR [−10, 0] at the 5% level, whereas MP and CR have an insignificant impact. However, after entering the ISSI, a close relationship with a

top politician has a significant negative impact on CAR [0, +10] at the 10% level, whereas GOV and MP have an insignificant impact.

Boubakri, Guedhami, et al. (2012) and Faccio (2006) suggest that political connections through government and connections through close relationships with top politicians are more valuable for firms than connections to members of parliament. My results are consistent with those of the previous studies. Before their inclusion in the ISSI, the strength of firm political connections result in an increase in their value. However, after their inclusion in the ISSI, politically connected firms lose these benefits. Moreover, these connections can lower their value.

Columns (3) and (4) of Table 3.6 present the results of the impact of political connections on market reactions to the exclusion of firms from the ISSI. Columns (3) and (4) of Table 3.6 show that GOV, MP, and CR have an insignificant impact on firm value. Hence, these results were similar to my main findings. I find no evidence of the impact of political connections (GOV, MP, and CR) on market reactions before or after the exclusion of firms from the ISSI.

3.4.4.3. Longer estimation window

The last additional analysis calculates the expected returns using a longer estimation window. Using a longer estimation window, it is possible to include different market model parameter periods. Whereas my main estimation window is [–140, –20] before the event date, I employ an estimation window from 250 to 20 days before the event date [–250, –20]. I then repeat Equations (3.4) and (3.5).

Table 3.7 presents the regression analysis results using CAR, with a longer estimation window as the dependent variable. I obtained findings similar to those of the main estimation. Political connections have a significant (insignificant) impact on firm value before (after) their inclusion in the ISSI. Meanwhile, political connections have an insignificant impact on firm value surrounding the date of its exclusion from the ISSI.

Table 3. 7. Political connections and Sharia-compliant firms' value: Longer estimation window.

Variable	Addition to the ISSI				Deletion from the ISSI			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	CAR	CAR	CAR	CAR	CAR	CAR	CAR	CAR
	[−10, 0]	[0, +10]	[−10, 0]	[0, +10]	[−10, 0]	[0, +10]	[−10, 0]	[0, +10]
Intercept	−0.2945**	−0.2188	−3.05e−01**	−0.2492	−1.96e−01	2.55e−01	−2.00e−01	2.40e−01
	(0.1461)	(0.1532)	(1.48e−01)	(0.1549)	(1.55e−01)	(1.88e−01)	(1.52e−01)	(1.87e−01)
PC	0.0279*	0.0157	–	–	3.96e−03	2.05e−02	–	–
	(0.0166)	(0.0186)			(1.62e−02)	(1.89e−02)		
GOV	–	–	2.67e−02*	0.0136	–	–	7.75e−03	2.13e−02
			(1.60e−02)	(0.0205)			(1.68e−02)	(2.01e−02)
MP	–	–	6.83e−02	0.0051	–	–	−1.20e−02	−3.03e−02
			(4.81e−02)	(0.0294)			(2.33e−02)	(2.47e−02)
CR	–	–	−1.11e−02	−0.0570**	–	–	−2.25e−02	−1.20e−02
			(2.36e−02)	(0.0276)			(3.06e−02)	(3.19e−02)
FS	0.0132***	0.0067	1.38e−02***	0.0081	8.55e−03	−1.00e−02	8.73e−03*	−9.38e−03
	(0.0047)	(0.0050)	(4.75e−03)	(0.0051)	(5.34e−03)	(6.34e−03)	(5.23e−03)	(6.30e−03)
LV	0.0329	0.0239	4.15e−02	0.0238	1.24e−02*	1.00e−02	1.22e−02*	9.64e−03
	(0.0366)	(0.0395)	(3.66e−02)	(0.0412)	(6.73e−03)	(9.56e−03)	(6.82e−03)	(9.57e−03)
ROA	−0.0015*	−0.0002	−1.32e−03	−0.0003	−3.97e−05	4.83e−04	−3.68e−05	4.92e−04
	(0.0009)	(0.0014)	(8.95e−04)	(0.0014)	(3.66e−04)	(6.25e−04)	(3.66e−04)	(6.20e−04)
Risk	0.1385	−0.2931	1.18e−01	−0.3419	−3.85e−01***	−3.26e−01***	−3.90e−01***	−3.35e−01***
	(0.5593)	(0.4519)	(5.57e−01)	(0.4590)	(5.95e−02)	(5.13e−02)	(6.15e−02)	(5.18e−02)
Growth	−0.0023	−0.0057	−2.35e−03	−0.0057	3.02e−06	1.09e−05	3.37e−06	7.88e−06
	(0.0038)	(0.0039)	(3.82e−03)	(0.0039)	(3.13e−05)	(3.45e−05)	(3.12e−05)	(3.43e−05)
FA	−0.0013*	−0.0020**	−1.43e−03*	−0.0020**	−1.67e−04	4.83e−04	−1.68e−04	4.91e−04
	(0.0007)	(0.0009)	(7.43e−04)	(0.0009)	(4.74e−04)	(5.55e−04)	(4.76e−04)	(5.42e−04)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	228	228	228	228	194	194	194	194
R^2	0.1509	0.1611	0.1664	0.1667	0.1624	0.1450	0.1638	0.1455

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$. The figures in brackets are heteroscedasticity-robust standard errors.

3.5. Conclusions

This study aims to investigate whether the inclusion or exclusion of firms in or from the ISSI affects their value. I further examine the impact of political connections on firm value. To answer this question, I used an event study methodology and regression analysis. The main findings are summarized below.

First, I find no abnormal returns following the inclusion or exclusion of firms in or from the ISSI. These findings indicate that investors do not place any value on firms that are included in or excluded from the ISSI. Although Indonesia is a majority-Muslim country, and I would expect investors to pay more attention to ISSI reconstitutions, I do not find any evidence of this.

Second, political connections contribute significantly to creating firm value before firms are included in the ISSI. However, the benefits of these connections are lost after the firms' inclusion in the ISSI. It is safe to conclude that firms tend to be passive and less flexible in establishing political connections after becoming Sharia compliant. On the one hand, politically connected firms have extensive access to the government. On the other hand, being Sharia compliant means that firms must adhere to Islamic principles. Sharia-compliant firms must not conduct their business activities or transactions in a manner that contradicts the Islamic law. Therefore, it is possible that Sharia-compliant firms may need to be more careful when establishing political connections to reduce the risk of violating Islamic law. Furthermore, I find no evidence of a relationship between political connections and the market reaction surrounding the deletion of firms from the ISSI.

Third, I find that the positive role of political connections in enhancing firm value is more pronounced for firms with strong political ties before their inclusion in the ISSI. However, after becoming Sharia compliant, strong political connections no longer remain valuable and can even reduce firm value.

These findings are robust to various dummy structures (i.e., industry and year dummies), to control for any cross-sectional differences between firm sectors or changes in market conditions that affect all firms. They are also robust to alternative abnormal return measurements, that is, using a longer estimation window. In conjunction, my findings suggest that political connections are more (less) valuable for firms before (after) their inclusion in the Sharia index.

The results of this study have both theoretical and practical implications. At the theoretical level, this study yields new insights into the relationship between political

connections and ethical investment (i.e., Sharia compliance). Specifically, this study suggests that having connections to politicians seems to be less valuable following a firm's inclusion in the ISSI through the Sharia screening process. My findings can assist firms and investors in developing further strategies at a practical level. Particularly, for firms, I show that the benefits of having connections to politicians may outweigh their costs before their inclusion in the Sharia index. However, these benefits seem to be lost after being included in the Sharia index (i.e., becoming Sharia compliant). Hence, politically connected firms should consider whether their connections are valuable, especially if they wish to enter the Sharia index. Additionally, they should ensure that their connections do not violate Islamic law. Furthermore, it may be more beneficial for Sharia-compliant firms to avoid allocating their resources to forging political connections. Sharia-compliant firms may not benefit from political connections and may instead be penalized for them. In conclusion, this study's results may also be useful to investors or managers of funds when considering their investment decisions. Investors or managers of funds should pay more attention to whether firms have connections to politicians and whether they are Sharia-compliant. Particularly, it may be better for investors or managers of funds to avoid investing in stocks of Sharia-compliant firms with political ties.

Despite its contributions, this study has one limitation that may necessitate further research. I only investigate the impact of political connections on the short-term value of Sharia-compliant firms. Political connections may have a different impact on the long-term value of Sharia-compliant firms. Therefore, future research should examine the impact of political connections on the value of Sharia-compliant firms in the long term. Additionally, further studies should investigate the relationship between political connections and Sharia compliance in other countries and/or in times of financial distress. Expanding this study to the different institutional environments of other countries (e.g., minority-Muslim countries or countries with lower corruption levels) and considering periods of financial distress (e.g., during the COVID-19 pandemic) may generate different findings.

Chapter 4

The Value of Political Connections and Sharia Compliance during the COVID-19 Pandemic

4.1. Introduction

The first case of COVID-19 was confirmed in Wuhan city, China, on December 31, 2019 (WHO, 2020b). The global spread of the disease was confirmed and it was declared a pandemic on March 11, 2020 (WHO, 2020a). In Indonesia, the first case was confirmed on March 2, 2020, and the first case of death was confirmed on March 11, 2020. Figure 4.1 shows the daily total active cases and daily total deaths caused by COVID-19 in Indonesia.

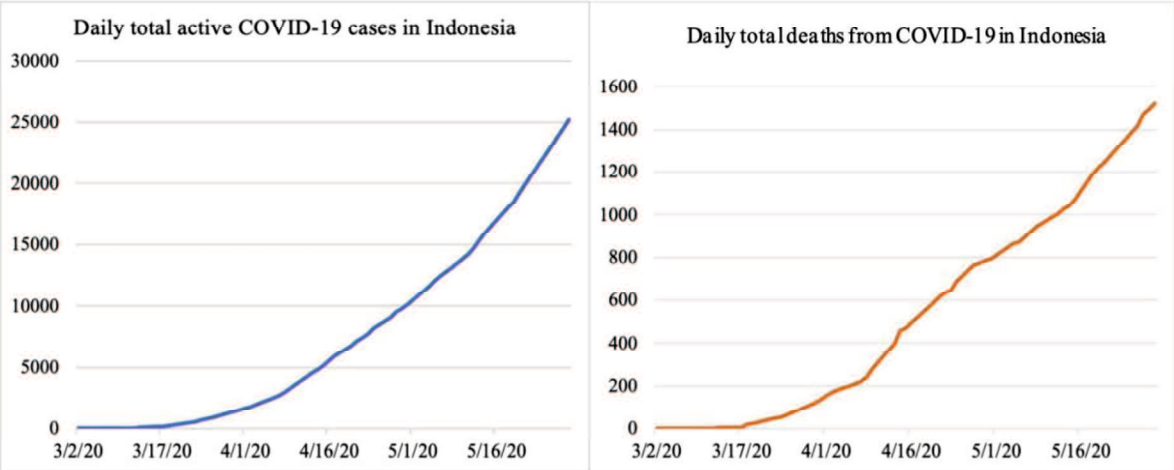


Figure 4. 1. Total daily cases and deaths caused by COVID-19. Source: Worldometer.

The spread of COVID-19 is having a major impact on economic activity in Indonesia, as can be seen, for example, from the movement of stock market returns. The stock market responds to major events, and data reflecting investors' reactions are updated and made available rapidly (Al-Awadhi et al., 2020; Griffith et al., 2020). Moreover, the stock market reactions to COVID-19 have useful and timely implications for policymaking (Griffith et al., 2020; Wagner, 2020). Figure 4.2

summarizes the cumulative average daily stock market returns, showing that the stock market reacted to the COVID-19 outbreak and that stock market returns were somewhat volatile when the first case of COVID-19 was confirmed in Indonesia.

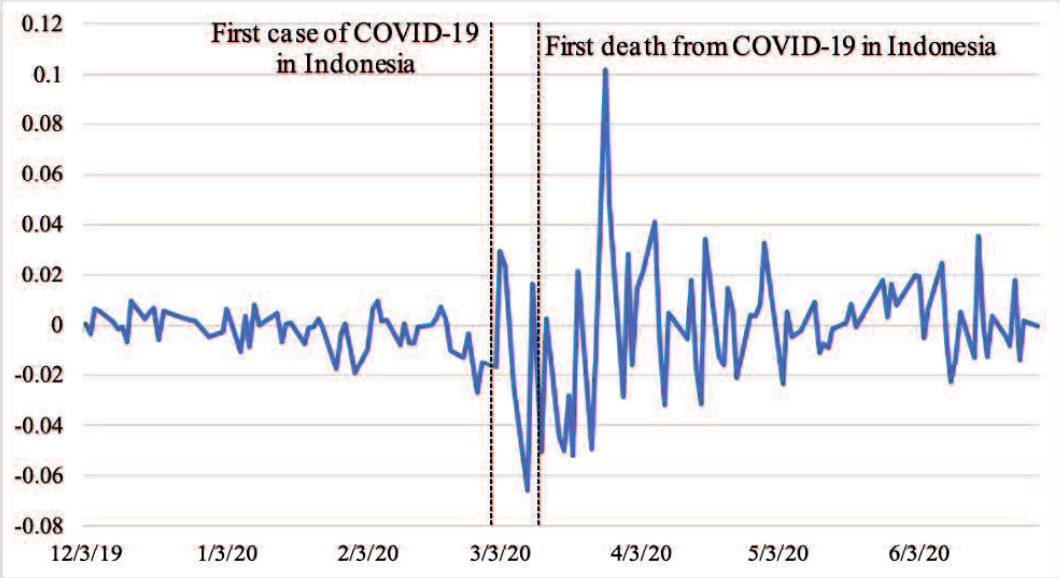


Figure 4. 2. Cumulative average daily stock market returns. Source: Yahoo! Finance

The literature on the relationship between the COVID-19 pandemic and the stock market is expanding rapidly. Some previous studies have examined the impact of the COVID-19 pandemic on stock market performance. One of the main conclusions is that stock markets reacted negatively to the growth of COVID-19 cases (Al-Awadhi et al., 2020; Ashraf, 2020; Liu et al., 2020; Topcu & Gulal, 2020). Other studies have examined the relationship between the COVID-19 pandemic and stock market volatility (Baek et al., 2020; Fakhfekh et al., 2021; Hong et al., 2021) and economic policy uncertainty (Sharif et al., 2020; Youssef et al., 2021). Some prior research has also investigated the effect of COVID-19 on socially responsible investing (Omura et al., 2021) and faith-based (Sharia) investment (Sherif, 2020). Although the relationship between the COVID-19 pandemic and the stock market is well documented in the literature, thus far, no study has explored the role of political connections and Sharia compliance during the pandemic. I fill this gap by estimating the value of political connections and of Sharia compliance in certain episodes during the pandemic, i.e., when the first case of COVID-19 was confirmed, when the first death caused by COVID-19 was confirmed, and when the government announced the stimulus package in the form of tax incentives for firms.

Investigating the value of political connections and Sharia compliance during the COVID-19 pandemic is interesting for several reasons. First, many firms needed funds to continue to operate during the pandemic, which they were able to raise by issuing bonds or securing loans from banks. Politically connected firms may have wider access to funding—they are more likely to be funded, bailed out by the government, or to be able to borrow from state-owned banks (Duchin & Sosyura, 2012; Faccio et al., 2006; Fu et al., 2017). A study by Wang & Lin (2017) found that politically connected firms receive higher subsidies from the government. In the context of economic distress, Vukovic (2021) found that political connections tended to increase bailout packages in relative terms for connected firms during the 2008/2009 global financial crisis. However, the COVID-19 pandemic is unprecedented—it is unlike the global financial crisis of 2008/2009 or any other previous infectious disease outbreak (Baker et al., 2020). The question is, then, has being politically connected also been valuable during the COVID-19 pandemic? To the best of my knowledge, no empirical evidence regarding this matter has yet been presented.

Second, several previous studies have shown that being Sharia-compliant can be beneficial to firms, especially during major events such as the global financial crisis and the COVID-19 pandemic. For example, Al-Khazali et al. (2014) and Al-Suhaibani & Naifar (2014) found that Sharia-compliant firms outperformed non-Sharia-compliant firms during the global financial crisis of 2008/2009. Another study by Abduh (2020) found that Sharia-compliant firms were less volatile than non-Sharia-compliant firms during the financial crisis. Furthermore, in the context of the COVID-19 pandemic, Sherif (2020) found that the pandemic has had an insignificant impact on the stock returns of Sharia-compliant firms. Similarly, Ryandono et al. (2021) suggested that Sharia-compliant firms have responded more quickly to COVID-19. However, few studies have attempted to address the role of Sharia compliance during the current pandemic.

Third, although both political connections and Sharia compliance may have been beneficial during the COVID-19 pandemic, there are several contradictions between them. Political connections motivate tunneling and facilitate opportunistic behavior by insiders (Hu et al., 2020; Jagolinzer et al., 2020). Politically connected firms have the potential to expropriate minority shareholders through tunneling (Qian et al., 2012). Conversely, Sharia-compliant firms are required to follow Islamic principles and maximize shareholders' wealth (Safieddine, 2009). In addition, Sharia

compliance constraints opportunistic behavior by firms' boards (Farooq & AbdelBari, 2015). These concerns motivate my study.

The contribution of this study is twofold. First, this study fills the research gap regarding the relationship between political connections and the COVID-19 pandemic. As mentioned before, thus far, no study has investigated the role of political connections during the current pandemic. Second, this study contributes to the literature on the COVID-19 pandemic and the Islamic stock market, following explorations by Sherif (2020) and Ryandono et al. (2021). Specifically, this study provides insight into the valuation of Sharia compliance during some episodes of the COVID-19 pandemic. Apart from its theoretical contributions, this paper will also be of interest to policymakers, market authorities, and individual investors who wish to know whether or not political connections and Sharia compliance have been valuable during the current pandemic.

The remainder of this paper proceeds as follows. Section 2 describes the research data and methodology. Section 3 presents the results of an event-study analysis, pooled regression analysis, and robustness checks and discusses them. Finally, Section 4 presents the concluding remarks and discusses the implications and some limitations of this study.

4.2. Data and Methodology

4.2.1. Sample screening

I use data for companies listed on the Indonesia Stock Exchange (IDX). My sample consists of 592 listed firms. I categorized my sample into politically connected firms and Sharia-compliant firms. I follow Faccio (2006) and Habib et al. (2017) in considering a firm to be politically connected if it is state-owned or if any of the larger shareholders (with ownership of more than 10%) or top management are current or former a) members of parliament, b) ministers or heads of state, c) or people who have a close relationship[33] with top officials. I took the names of the board commissioners and directors from the IDX and then traced the board members' profiles manually from the firms' annual reports and official websites. In addition, I obtained data on shareholders from the IDX. Furthermore, I categorized a firm as being Sharia-

[33] A relationship is defined here as being a friend or well-known associate of a political party (Faccio 2006).

compliant if it was listed on the Indonesia Sharia Index (ISSI). Data on the ISSI-listed firms were obtained from the IDX.

4.2.2. Variable measurement

This study uses two kinds of analysis, i.e., event-study and panel regression analysis (using the pooled method). I use several variables in my analysis. First, for the event-study analysis, I use cumulative abnormal returns (CAR) as the variable (i.e., I determine the significance of CAR). Second, for panel regression analysis, I use daily stock return as the dependent variable and political connections and Sharia compliance as independent variables, with daily market return and daily market capitalization as control variables. Table 4.1 summarizes the variable definitions for my analysis.

Table 4. 1. Variable definitions.

Variable	Definition
Panel A: Event-study analysis	
Cumulative abnormal returns	The abnormal return is the difference between the actual return and the expected return, calculated by the basic market model (detailed calculation of CAR is presented in section 4.2.3)
Panel B: Pooled regression analysis	
Stock return	Daily stock return calculated by the difference between the closing price on one day and the previous day
Political connections	I define political connections using a dummy variable to represent a politically connected firm, which is equal to 1 if the firm is politically connected and 0 otherwise (the criteria for political connections are presented in section 4.2.1)
Sharia compliance	I define Sharia compliance as a firm with Sharia stocks (listed in the ISSI), using a dummy variable that is equal to 1 if listed in the ISSI and 0 otherwise
Market return	Daily market return, i.e., the daily return on the Composite Stock Price Index (IHSG)
Market capitalization	Natural logarithm of daily market capitalization

4.2.3. Event-study methodology

I rely on a basic event-study methodology to examine the impact of the COVID-19 pandemic on the stock performance of politically connected firms and of Sharia-compliant firms. To calculate abnormal returns, I employ the basic market model described by Brown & Warner (1985) as follows:

$$A_{i,t} = R_{i,t} - \alpha_i - \beta_i R_{m,t}, \quad (1)$$

where $A_{i,t}$ is the abnormal return for security i at day t, $R_{i,t}$ is the observed arithmetic return for security i at day t, α_i is the intercept, β_i is the slope, and $R_{m,t}$ is the return on the IHSG for day t. I obtained daily stock prices from the IDX and Yahoo! Finance and then documented daily returns based on the closing stock prices. The event date is March 2, 2020, that is, the date when the first case of COVID-19 was announced. Following MacKinlay (1997), this study uses 120 trading days as an estimation window, i.e., from −140 to −20 days prior to the event date. I calculate CAR by cumulating $A_{i,t}$ over the announcement period.

$$CAR[t_1, t_2] = \sum_{t=t_1}^{t_2} A_{i,t}. \quad (2)$$

Finally, I test the significance of the CAR using a *t*-test. Following Chen et al. (2007), if the CAR is significantly different from zero, the event is considered to have significantly impacted stock prices. I divide the sample into four sub-samples, namely politically connected non-Sharia-compliant firms, non-politically connected Sharia-compliant firms, politically connected Sharia-compliant firms, and non-politically connected non-Sharia-compliant firms. Then, I investigate the impact of the COVID-19 pandemic on each sub-sample.

4.2.4. Regression model

I employ a panel regression analysis to sharpen my further identification of the role of political connections and Sharia compliance during the COVID-19 pandemic. Inspired by Fisman (2001), I divide my analysis into several episodes. I use three episodes in my regression analysis, i.e., the date the first case of COVID-19 was confirmed, the date the first case of a death caused by COVID-19 was confirmed, and the date of the government announcement of tax incentives for firms. The first case of COVID-19 in Indonesia was confirmed on March 2, 2020 (my episode is from March 2 to March 4, 2020), and the first death caused by COVID-19 in Indonesia was confirmed on March 11, 2020 (my episode is from March 11 to March 13, 2020). Then, on March 26, 2020 (my episode is from March 26 to March 30, 2020), the Indonesian

government announced through the Ministry of Finance that companies would receive tax incentives on account of the COVID-19 pandemic. Each episode consists of three trading days. Thus, my sample in this regression analysis is 1,776 observations from 592 firms for each episode.

To investigate whether it was worth it for firms to be politically connected or Sharia-compliant during each episode, I run a set of panel data regression using the following model:

$$R_{i,t} = \alpha + \beta_1 PC_i + \beta_2 SH_i + \beta_3 PC_i * SH_i + \beta_4 MR_t + \beta_5 LNMC_{i,t} + \varepsilon_{i,t} \quad (3)$$

where $R_{i,t}$ is stock return i during episode t, PC_i is political connections, SH_i is Sharia, MR_t is the market return during episode t, $LNMC_{i,t}$ is the natural logarithm of daily market capitalization, and $\varepsilon_{i,t}$ is the error term. The data for daily stock prices and daily market prices (IHSG) were taken from the IDX and Yahoo! Finance. Additionally, I obtained data on daily market capitalization from The Indonesia Capital Market Institute (TICMI). Following Jagolinzer et al. (2020)—who employ single country regressions in their study—I estimate my model using a pooled regression analysis. In addition, I also conduct a Breusch–Pagan Lagrange Multiplier test to confirm the model selection (see Table C.1 in the Appendix). The results of the Breusch–Pagan Lagrange Multiplier test show that the null hypotheses are accepted and confirm that the pooled regression is appropriate for my analysis.

4.3. Results and Discussions

4.3.1. Descriptive statistics and correlation matrix

I first report the descriptive statistics in Table 4.2. Panel A of Table 4.2 elucidates the descriptive statistics of CAR that are used in the event-study analysis. Panels B, C, and D of Table 4.2 show the descriptive statistics of my regression variables. It is apparent from Panel A of Table 4.2 that the mean of CAR before the event date was negative but positive after the event date, indicating a positive trend in CAR after the first case of COVID-19 was confirmed. Panels B, C, and D of Table 4.2 show that approximately 42.06% and 64.70% of the total sample were politically connected firms and Sharia-compliant firms, respectively. Table 4.3 shows the correlation matrix between all variables that are used in the regression analysis. In general, the

coefficient correlations of all variables are small, indicating that multicollinearity is not an issue in my analysis.[34]

Table 4. 2. Descriptive statistics.

Variable	N	Mean	S.D.	Min.	Max.
Panel A: Event study					
CAR [−30,0]	592	–0.0415	0.2168	–1.2067	0.9115
CAR [−20,0]	592	–0.0216	0.1895	–0.9980	0.9499
CAR [−10,0]	592	–0.0112	0.1515	–0.9420	1.0571
CAR [−5,0]	592	–0.0140	0.1225	–0.6647	0.7611
CAR [−3,0]	592	–0.0089	0.1009	–0.5292	0.5432
CAR [0,0]	592	0.0048	0.0576	–0.2625	0.3728
CAR [0,3]	592	0.0180	0.1064	–0.5885	0.7402
CAR [0,5]	592	0.0159	0.1212	–0.5077	0.8343
CAR [0,10]	592	0.0063	0.1752	–0.8805	0.9161
CAR [0,20]	592	–0.0011	0.2701	–1.5619	1.6905
CAR [0,30]	592	0.0400	0.2926	–1.5346	1.6940
Panel B: Pooled regression analysis (March 2–4, 2020)					
R	1,776	0.0093	0.0557	–0.3350	0.3496
PC	1,776	0.4206	0.4938	0	1
SH	1,776	0.6470	0.4780	0	1
MR	1,776	0.0121	0.0206	–0.0168	0.0294
LNMC	1,776	27.8695	1.9331	22.9205	34.2979
Panel C: Pooled regression analysis (March 11–13, 2020)					
R	1,776	–0.0114	0.2022	–0.1821	8.2788
PC	1,776	0.4206	0.4938	0	1
SH	1,776	0.6470	0.4780	0	1
MR	1,776	–0.0202	0.0221	–0.0501	0.0024
LNMC	1,776	27.8031	1.9068	22.9205	34.2018
Panel D: Pooled regression analysis (March 26–30, 2020)					
R	1,776	0.0140	0.0689	–0.8121	0.3478
PC	1,776	0.4206	0.4938	0	1
SH	1,776	0.6470	0.4780	0	1
MR	1,776	0.0402	0.0536	–0.0288	0.1019
LNMC	1,776	27.7265	1.8744	22.9205	34.1420

Note: CAR is cumulative abnormal return, R is daily stock return, PC is political connections, SH is Sharia compliance, MR is daily market return, and LNMC is the natural logarithm of daily market capitalization.

[34] In addition, the VIF values are less than 10 (see Table C.2 in the Appendix).

Table 4. 3. Correlation matrix.

Panel A: March 2–4, 2020					
	R	PC	SH	MR	LNMC
R	1				
PC	0.0256	1			
SH	–0.0006	–0.0579**	1		
MR	0.1669***	0.0000	0.0000	1	
LNMC	0.0314	0.3372***	–0.0117	0.0054	1
Panel B: March 11–13, 2020					
	R	PC	SH	MR	LNMC
R	1				
PC	–0.0391*	1			
SH	0.0041	–0.0579**	1		
MR	0.0671***	0.0000	0.0000	1	
LNMC	0.0149	0.3356***	–0.0146	0.0009	1
Panel C: March 26–30, 2020					
	R	PC	SH	MR	LNMC
R	1				
PC	0.0377	1			
SH	0.0597**	–0.0610**	1		
MR	0.3145***	0.0000	0.0000	1	
LNMC	0.1252***	0.3356***	–0.0190	0.0001	1

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$. R is daily stock return, PC is political connections, SH is Sharia compliance, MR is daily market return, and LNMC is the natural logarithm of daily market capitalization.

4.3.2. Event study

4.3.2.1. Baseline analysis

Figure 4.3 presents the CAR for each sub-sample surrounding the event date on March 2, 2020. Table 4.4 shows the results for the event-study mean using a basic market model.

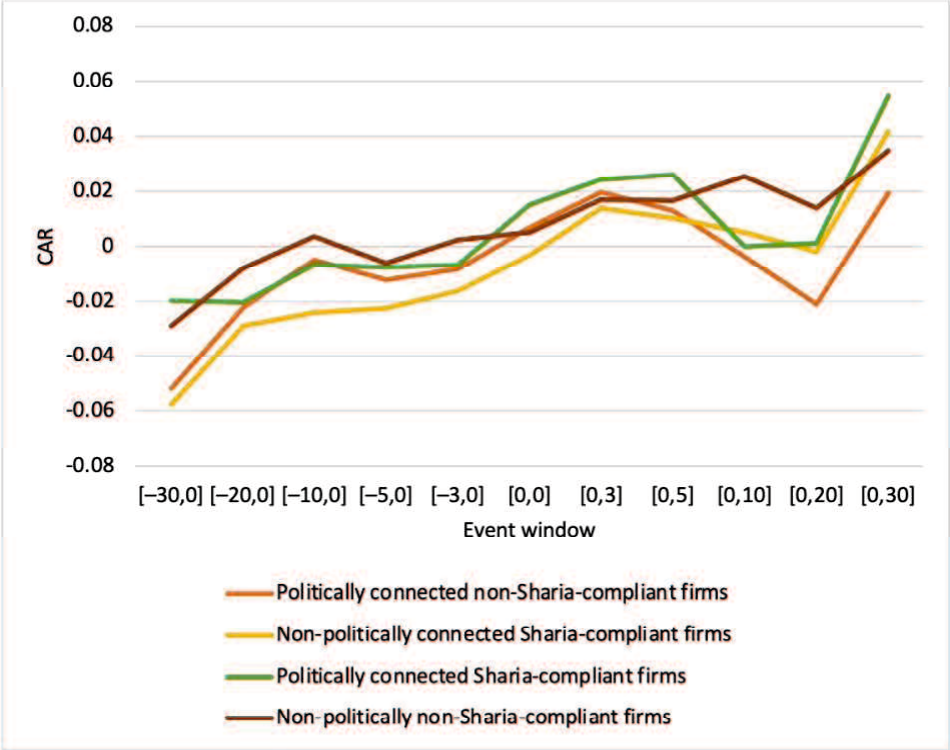


Figure 4. 3. CAR surrounding the event date

The results shown in Figure 4.3 indicate an inward trend in CAR. Particularly, the inward trend in CAR is more pronounced after the event window [0,20], i.e., around the end of March 2020. At the end of March 2020—more precisely, on March 26, 2020—the government of Indonesia announced that it would give tax incentives to firms. It is reasonable to suppose that CAR's strength after the event window [0,20] was because the market responded positively to the government announcement of tax incentives for firms.

As reported in Table 4.4, the estimate of CAR before the event date was statistically negatively significant for politically connected non-Sharia-compliant firms, non-politically connected Sharia-compliant firms, and politically connected Sharia-compliant firms. These results indicate that the market reacted negatively before the first case of COVID-19 in Indonesia was confirmed. The market reacted negatively only during the event window [–30,0] for politically connected non-Sharia-compliant firms and [–20,0] for politically connected Sharia-compliant firms. Meanwhile, the market value of non-politically connected Sharia-compliant firms was significantly negatively affected for all event windows prior to the event date. Furthermore, the market value of non-politically connected non-Sharia-compliant firms before the event date was negatively affected but to an insignificant extent.

Table 4. 4. The impact of COVID-19 on stock market performance.

Event Window	Full Sample [592]	Politically connected non-Sharia-compliant firms [97]	Non-politically connected Sharia-compliant firms [232]	Politically connected Sharia-compliant firms [147]	Non-politically connected non-Sharia-compliant firms [116]
[−30,0]	−0.0415***	−0.0516**	−0.0575***	−0.0198	−0.0288
	(−4.6620)	(−2.6445)	(−3.7015)	(−1.3486)	(−1.3015)
[−20,0]	−0.0216***	−0.0224	−0.0289**	−0.0205*	−0.0079
	(−2.7760)	(−1.4280)	(−2.0389)	(−1.7855)	(−0.3945)
[−10,0]	−0.0112*	−0.0050	−0.0241**	−0.0068	0.0036
	(−1.8048)	(−0.4661)	(−1.9875)	(−0.8266)	(0.2388)
[−5,0]	−0.0140***	−0.0122	−0.0226**	−0.0077	−0.0062
	(−2.7729)	(−1.0195)	(−2.6250)	(−1.0455)	(−0.4622)
[−3,0]	−0.0089**	−0.0083	−0.0160**	−0.0069	0.0025
	(−2.1372)	(−1.0234)	(−2.2018)	(−1.1385)	(0.2160)
[0,0]	0.0048**	0.0070*	−0.0030	0.0152***	0.0052
	(2.0142)	(1.8071)	(−0.9237)	(3.1898)	(0.6913)
[0,3]	0.0180***	0.0196**	0.0139*	0.0242***	0.0169*
	(4.1068)	(2.1216)	(1.8382)	(2.9288)	(1.6663)
[0,5]	0.0159***	0.0129	0.0103	0.0261**	0.0165
	(3.1840)	(1.3932)	(1.2719)	(2.7565)	(1.2239)
[0,10]	0.0063	−0.0036	0.0050	−0.0001	0.0254
	(0.8762)	(−0.2584)	(0.4345)	(−0.0107)	(1.3094)
[0,20]	−0.0011	−0.0212	−0.0018	0.0010	0.0140
	(−0.1034)	(−1.0658)	(−0.0999)	(0.0435)	(0.5009)
[0,30]	0.0400***	0.0193	0.0420**	0.0546**	0.0348
	(3.3275)	(0.8644)	(2.2141)	(2.1645)	(1.1197)

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$ (two-tailed). The total number of firms included in each sub-sample is in brackets. The figures in parentheses are t-statistics.

Interestingly, the estimate of CAR after the event date was statistically positively significant across all sub-samples. These results indicate that there was a stock market anomaly when the first case of COVID-19 in Indonesia was confirmed. That is, although there was volatility in stock returns during the COVID-19 pandemic, Indonesian investors' performance actually increased. One plausible explanation for these results is the growth of new investors and daily stock transactions in Indonesia. Even after the first case of COVID-19 and the first case of death caused by COVID-19 were confirmed in Indonesia, the number of new investors and daily transactions in the stock market actually increased quite sharply. According to the Indonesia Central Securities Depository (KSEI),[35] from December

[35] KSEI news, 3rd edition: July–September 2020. Another data source on Single Investor Identification (SID) growth can be seen in the press release by IDX number 114/BEI.SPR/12-2020.

2019 to July 2020, the number of new investors grew by 22%. Meanwhile, from March to July 2020, the average number of daily transactions on the Indonesian stock market grew by 82.4%. It may be that middle- to high-income people became more inclined to invest in the stock market due to various restrictions during the COVID-19 pandemic (e.g., restrictions on traveling and tourism). Hence, in the short term, the Indonesian stock market reacted positively to the COVID-19 outbreak.

Table 4.4 also shows that for politically connected Sharia-compliant firms, the estimate of CAR was statistically positive for the event windows [0,0]; [0,3]; [0,5]; and [0,30], whereas for non-politically connected Sharia-compliant firms, the estimate of CAR was statistically positive for the event windows [0,3] and [0,30]. These results indicate that the positive impact of the COVID-19 pandemic was more pronounced for Sharia-compliant firms (i.e., both non-politically connected Sharia-compliant firms and politically connected Sharia-compliant firms). In line with Figure 4.3, the higher CAR is more pronounced after the event window [0,20], i.e., after the government announced tax incentives for firms, indicating that being Sharia-compliant became more valuable during this period. It is worth noting that the increase in CAR may have resulted not only from Sharia compliance but also from political connections, as I divide Sharia-compliant firms into non-politically connected Sharia-compliant firms and politically connected Sharia-compliant firms. Hence, to sharpen my investigation of the roles of political connections and Sharia compliance, I rely next on pooled regression analysis of several episodes (Section 4.3.3).

4.3.2.2. Sector analysis

Following previous studies by Al-Awadhi et al. (2020) and He et al. (2020), I analyze the impact of the COVID-19 pandemic on industry sectors. In Indonesia, listed firms are classified into nine industry sectors, namely agriculture; basic industry and chemicals; the consumer goods industry; finance; infrastructure, utilities, and transportation; mining; miscellaneous industries; property, real estate, and building construction; and trade, services, and investment. Then, I divide each industry sector into four groups, i.e., politically connected non-Sharia-compliant firms, non-politically connected Sharia-compliant firms, politically connected Sharia-compliant firms, and non-politically connected non-Sharia-compliant firms. However, for the financial sector, there is no politically connected Sharia-compliant firm. Tables C.2, C.3, C.4,

C.5, and C.6 in the Appendix report the results of the sector analysis. Figure 4.4 shows a summary of those results.

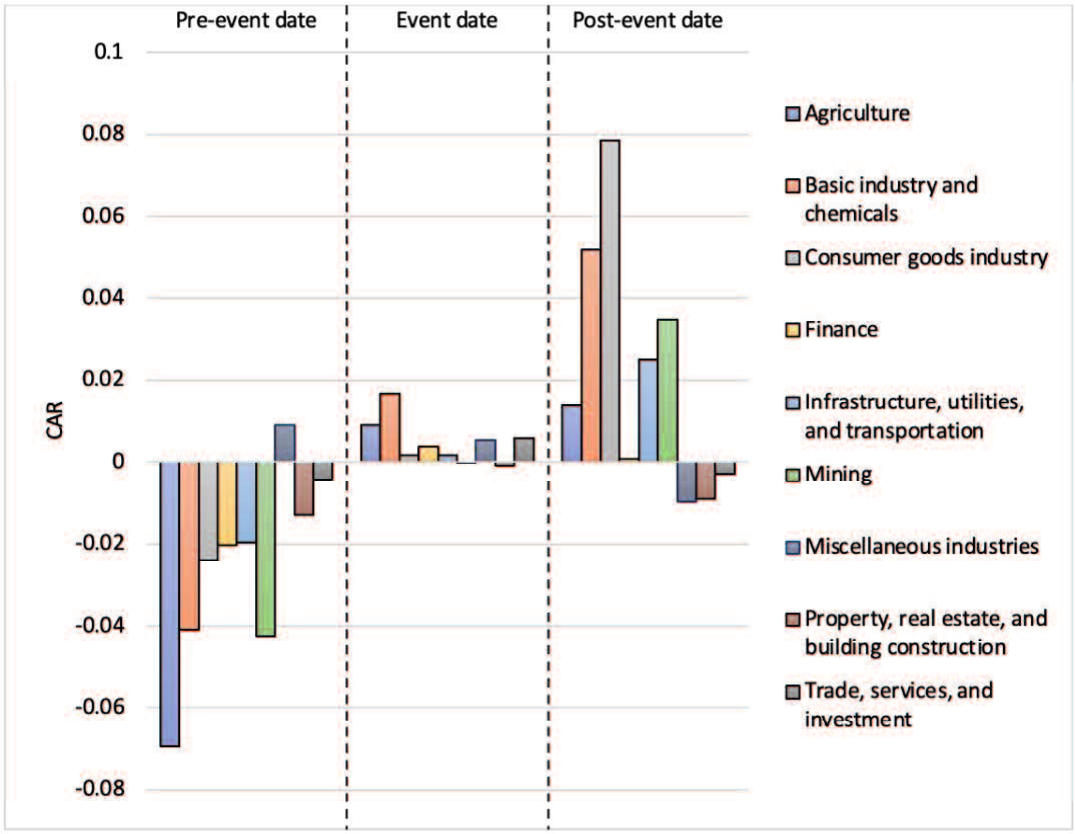


Figure 4. 4. Sector analysis

The results of the sector analysis show that the market reacted positively in the agriculture; basic industry and chemicals; consumer goods industries; infrastructure, utilities, and transportation; and mining sectors. The reasonable explanation for the rise in the agriculture; basic industry and chemicals; and consumer goods industries is that these three sectors are closely related to basic human needs. People will continue to consume products from these three sectors, even during an event such as the COVID-19 pandemic. Furthermore, the positive reaction for infrastructure, utilities, and transportation may have been driven by the telecommunications sub-sector, as the use of telecommunications technology has increased during the COVID-19 pandemic. Moreover, a possible reason for the positive reaction in the mining industry is that it is driven by listed firms with gold products, which tended to strengthen at the beginning of the COVID-19 pandemic. Finally, miscellaneous industries; property, real estate, and building construction; and trade, services, and

investment have been negatively impacted by the COVID-19 pandemic. It may be that the social restrictions during the pandemic disrupted the production processes of these sectors. Finally, consistent with the baseline event-study analysis, the positive impact detected in the sectoral analysis was more pronounced on Sharia-compliant firms (both non-politically connected Sharia-compliant firms and politically connected Sharia-compliant firms).

4.3.2.3. Market capitalization analysis

I conduct a market capitalization analysis and divide my sample into two groups, i.e., large market capitalization and small market capitalization companies. Following Al-Awadhi et al. (2020), I rank all companies based on their market capitalization and use the 50th percentile as the divider between large market capitalization and small market capitalization companies. Then, I divide each group into politically connected non-Sharia-compliant firms, non-politically connected Sharia-compliant firms, politically connected Sharia-compliant firms, and non-politically connected non-Sharia-compliant firms.

The results suggest that firms with a large market capitalization, especially politically connected firms and Sharia-compliant firms, tended to see negative abnormal returns during the COVID-19 pandemic (Table 4.5). Conversely, firms with a small market capitalization, except politically connected non-Sharia-compliant firms, saw significant abnormal positive returns during the COVID-19 pandemic (Table 4.6). The COVID-19 pandemic has interacted insignificantly with small market capitalization firms with political connections. It may be that small market capitalization firms have been better positioned to react quickly to the COVID-19 pandemic. Moreover, in line with my baseline and sector analyses, Sharia-compliant firms with small market capitalization seem to have been more valuable during the pandemic.

Table 4. 5. Large market capitalization analysis.

Event Window	Full Sample [296]	Politically connected non-Sharia-compliant firms [62]	Non-politically connected Sharia-compliant firms [89]	Politically connected Sharia-compliant firms [97]	Non-politically connected non-Sharia-compliant firms [48]
[−30,0]	−0.0358***	−0.0505**	−0.0291	−0.0277	−0.0454
	(−3.1232)	(−2.1432)	(−1.6361)	(−1.4302)	(−1.1773)
[−20,0]	−0.0147	−0.0295*	−0.0019	−0.0156	−0.0177
	(−1.5318)	(−1.7215)	(−0.1157)	(−1.0101)	(−0.5213)
[−10,0]	−0.0081	−0.0152	−0.0076	−0.0021	−0.0123
	(−1.1107)	(−1.2697)	(−0.5808)	(−0.2042)	(−0.4360)
[−5,0]	−0.0175***	−0.0269**	−0.0196*	−0.0044	−0.0280
	(−2.8217)	(−2.6100)	(−1.7350)	(−0.4988)	(−1.2070)
[−3,0]	−0.0128**	−0.0179**	−0.0129	−0.0031	−0.0253
	(−2.4900)	(−2.0125)	(−1.2910)	(−0.4389)	(−1.4144)
[0,0]	0.0018	0.0075**	−0.0079	0.0153***	−0.0152
	(0.5926)	(2.0983)	(−1.5082)	(2.9439)	(−1.5255)
[0,3]	0.0128**	0.0317**	0.0048	0.0176	−0.0065
	(2.2282)	(2.6092)	(0.4717)	(1.6488)	(−0.4858)
[0,5]	0.0033	0.0170	−0.0099	0.0193	−0.0220
	(0.5260)	(1.2848)	(−1.0120)	(1.6235)	(−1.2564)
[0,10]	−0.0191*	−0.0192	−0.0316*	−0.0093	−0.0151
	(−1.9305)	(−1.0810)	(−1.9150)	(−0.5139)	(−0.5021)
[0,20]	−0.0496***	−0.0487*	−0.0711**	−0.0239	−0.0630
	(−2.9271)	(−1.9078)	(−2.4646)	(−0.7068)	(−1.2907)
[0,30]	−0.0013	0.0191	−0.0265	0.0350	−0.0542
	(−0.0723)	(0.6345)	(−0.9373)	(1.0201)	(−0.9852)

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$ (two-tailed). The total number of firms included in each sector is in brackets. The figures in parentheses are t-statistics.

Table 4. 6. Small market capitalization analysis.

Event Window	Full Sample [296]	Politically connected non-Sharia-compliant firms [35]	Non-politically connected Sharia-compliant firms [143]	Politically connected Sharia-compliant firms [50]	Non-politically connected non-Sharia-compliant firms [68]
[−30,0]	−0.0473***	−0.0535	−0.0751***	−0.0043	−0.0171
	(−3.4621)	(−1.5364)	(−3.3317)	(−0.2033)	(−0.6495)
[−20,0]	−0.0285**	−0.0098	−0.0456**	−0.0301*	−0.0010
	(−2.3261)	(−0.3117)	(−2.2291)	(−1.9090)	(−0.0395)
[−10,0]	−0.0143	0.0131	−0.0345*	−0.0157	0.0149
	(−1.4224)	(0.6342)	(−1.9202)	(−1.2229)	(0.8908)
[−5,0]	−0.0104	0.0139	−0.0245**	−0.0140	0.0092
	(−1.3130)	(0.5087)	(−2.0230)	(−1.0556)	(0.5851)
[−3,0]	−0.0050	0.0088	−0.0180*	−0.0142	0.0221
	(−0.7602)	(0.5633)	(−1.7860)	(−1.2628)	(1.5127)
[0,0]	0.0078**	0.0062	0.0001	0.0149	0.0195*
	(2.1171)	(0.7005)	(0.0189)	(1.5239)	(1.8851)
[0,3]	0.0231***	−0.0018	0.0195*	0.0369***	0.0333**
	(3.5091)	(-0.1381)	(1.8661)	(2.9403)	(2.3401)
[0,5]	0.0284***	0.0056	0.0229**	0.0392**	0.0437**
	(3.7231)	(0.5326)	(1.9852)	(2.5288)	(2.3242)
[0,10]	0.0317***	0.0241	0.0278*	0.0178	0.0540**
	(3.0815)	(1.0969)	(1.8110)	(0.8810)	(2.1674)
[0,20]	0.0473***	0.0275	0.0414*	0.0494*	0.0684**
	(3.4265)	(0.9144)	(1.9338)	(1.9167)	(2.1563)
[0,30]	0.0813***	0.0199	0.0847***	0.0926***	0.0977***
	(5.1507)	(0.6123)	(3.4333)	(2.8574)	(2.8266)

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$ (two-tailed). The total number of firms included in each sector is in brackets. The figures in parentheses are t-statistics.

4.3.3. Pooled regression analysis

Table 4.7 reports the results from estimating Eq. (3). Panel A presents the first episode regression results (i.e., March 2–4, 2020). Panels B and C show the results for the second episode (i.e., March 11–13, 2020) and the third episode (i.e., March 26–30, 2020), respectively.

Panels A and B of Table 4.7 show that political connections and Sharia compliance had an insignificant impact on stock returns, indicating that before government intervention, political connections and Sharia compliance seem to have played less of a role during the COVID-19 pandemic. Interestingly, after the government announced tax incentives for companies on account of the COVID-19 pandemic (Panel C of Table 4.7), Sharia compliance had a positive impact on stock returns. This result is plausible and in line with the Modigliani–Miller (MM) theorem

(see Miller, 1977; Modigliani & Miller, 1958, 1963). According to the MM theorem, debt interest payments can be deducted from taxable corporate income. In other words, firms with higher debt levels are more likely to pay less taxes. Sharia-compliant firms tend to have lower debt, as Sharia screening does not allow firms to take on large amounts of debt (debt limitation), especially interest-based debt. In this regard, Sharia-compliant firms may have benefited from the government's tax incentives during the COVID-19 pandemic. Finally, this result indicates that being a Sharia-compliant firm was valuable during the COVID-19 pandemic when the government was giving tax incentives.

4.3.4. Robustness check

I consider using two kinds of robustness tests. First, to check the robustness of the event-study analysis, I use a longer estimation window to calculate CAR. Second, I use another Sharia compliance proxy to check whether or not the regression results are robust.

4.3.4.1. Using a longer estimation window

To calculate CAR in the baseline event-study analysis, I use 120 trading days before the event date as an estimation window [−140, −20]. Then, as a robustness test, I use 230 trading days before the event date [−250, −20].

Table 4.8 shows that the market reacted positively to the COVID-19 pandemic, especially for politically connected Sharia-compliant firms. Thus, the robustness results using a longer estimation window support the main findings.

Table 4. 7. Pooled regression analysis.

Variable	Expected sign	(1)	(2)	(3)
Panel A: March 2–4, 2020				
Intercept	N/A	–0.0168	−2.07e–02	–0.0164
		(0.0181)	(1.79e–02)	(0.0180)
PC	+	0.0020		0.0004
		(0.0026)		(0.0037)
SH	+		−2.64e–05	–0.0010
			(2.58e–03)	(0.0040)
PC * SH	+/–			0.0024
				(0.0050)
MR	+	0.4520***	4.52e–01***	0.4520***
		(0.0624)	(6.24e–02)	(0.0624)
LNMC	+	0.0007	8.79e–04	0.0007
		(0.0006)	(6.29e–04)	(0.0006)
Obs.		1,776	1,776	1,776
Panel B: March 11–13, 2020				
Intercept	N/A	−0.0835	−0.0443	−0.0854
		(0.1340)	(0.1152)	(0.1452)
PC	+	−0.0203		−0.0157*
		(0.0151)		(0.0089)
SH	+		0.0018	0.0039
			(0.0078)	(0.0117)
PC * SH	+/–			−0.0071
				(0.0120)
MR	+	0.6142***	0.6143***	0.6142***
		(0.0884)	(0.0885)	(0.0884)
LNMC	+	0.0033	0.0016	0.0033
		(0.0054)	(0.0042)	(0.0054)
Obs.		1,776	1,776	1,776
Panel C: March 26–30, 2020				
Intercept	N/A	−0.1311***	−0.1367***	−0.1380***
		(0.0198)	(0.0189)	(0.0195)
PC	+	−0.0007		0.0032
		(0.0032)		(0.0053)
SH	+		0.0090***	0.0112**
			(0.0032)	(0.0047)
PC * SH	+/–			−0.0051
				(0.0063)
MR	+	0.4036***	0.4036***	0.4036***
		(0.0331)	(0.0331)	(0.0331)
LNMC	+	0.0047***	0.0046***	0.0046***
		(0.0007)	(0.0007)	(0.0007)
Obs.		1,776	1,776	1,776

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$. PC is political connections, SH is Sharia compliance, MR is daily market return, and LNMC is the natural logarithm of daily market capitalization. The figures in brackets are heteroscedasticity-robust standard errors.

4.3.4.2. An alternative Sharia compliance measurement

My baseline regression analysis finds that Shariah compliance was more valuable during the COVID-19 pandemic after the government announced tax incentives for firms. To check the robustness of my baseline results, I use another measurement of Sharia compliance. I consider using listed firms in JII as another Sharia compliance proxy, and then repeat Eq. (3).

As reported in Table 4.9, the regression results using another proxy for Sharia compliance are basically similar to the main results, i.e., Sharia compliance has been valuable during the COVID-19 pandemic, especially when the government announced tax incentives for firms. Hence, my baseline results are robust to another Sharia compliance proxy.

Table 4. 8. Robustness check by using a longer estimation window.

Event Window	Full Sample [592]	Politically connected and non-Sharia-compliant firms [97]	Non-politically connected Sharia-compliant firms [232]	Politically connected Sharia-compliant firms [147]	Non-politically connected and non-Sharia-compliant firms [116]
[−30,0]	−0.0525***	−0.0399**	−0.0755***	−0.0311**	−0.0440**
	(−6.2495)	(−2.1607)	(−5.0236)	(−2.1897)	(−2.3104)
[−20,0]	−0.0291***	−0.0151	−0.0410***	−0.0283**	−0.0183
	(−3.9741)	(−1.0845)	(−2.9960)	(−2.4802)	(−1.0398)
[−10,0]	−0.0146**	0.0027	−0.0312***	−0.0105	−0.0012
	(−2.4467)	(0.2575)	(−2.6298)	(−1.2999)	(−0.0861)
[−5,0]	−0.0151***	−0.0034	−0.0273***	−0.0093	−0.0080
	(−3.2401)	(−0.3240)	(−3.2888)	(−1.3274)	(−0.6850)
[−3,0]	−0.0094**	−0.0009	−0.0195***	−0.0078	0.0015
	(−2.4472)	(−0.1203)	(−2.7890)	(−1.3590)	(0.1512)
[0,0]	0.0046**	0.0087**	−0.0038	0.0149***	0.0049
	(1.9815)	(2.2440)	(−1.2073)	(3.2023)	(0.6701)
[0,3]	0.0157***	0.0152*	0.0127*	0.0222***	0.0139
	(3.5578)	(1.6909)	(1.6692)	(2.6258)	(1.3480)
[0,5]	0.0141***	0.0179*	0.0063	0.0241***	0.0140
	(3.0255)	(1.9099)	(0.8207)	(2.7281)	(1.1516)
[0,10]	0.0038	0.0100	−0.0032	−0.0033	0.0216
	(0.6022)	(0.8489)	(−0.3102)	(−0.2691)	(1.3653)
[0,20]	−0.0077	−0.0070	−0.0152	−0.0061	0.0048
	(−0.7675)	(−0.4046)	(−0.9221)	(−0.2748)	(0.2080)
[0,30]	0.0288***	0.0296	0.0242	0.0431*	0.0194
	(2.6744)	(1.4826)	(1.3999)	(1.8631)	(0.7304)

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$ (two-tailed). The total number of firms included in each sector is in brackets. The figures in parentheses are t-statistics.

Table 4. 9. Robustness check using an alternative Sharia compliance measurement.

Variable	Expected sign	(1)	(2)	(3)
Panel A: March 2–4, 2020				
Intercept	N/A	−0.0168	−0.0204	−0.0171
		(0.0181)	(0.0183)	(0.0184)
PC	+	0.0020		0.0022
		(0.0026)		(0.0027)
SH	+		−0.0010	0.0011
			(0.0029)	(0.0040)
PC * SH	+/–			–0.0055
				(0.0056)
MR	+	0.4520***	0.4519***	0.4520***
		(0.0624)	(0.0624)	(0.0624)
LNMC	+	0.0007	0.0009	0.0007
		(0.0006)	(0.0006)	(0.0006)
Obs.		1776	1776	1776
Panel B: March 11–13, 2020				
Intercept	N/A	–0.0835	−0.0450**	−0.0371
		(0.1390)	(0.0182)	(0.0248)
PC	+	−0.0203		−0.0050*
		(0.0151)		(0.0026)
SH	+		0.0741	0.2920
			(0.0900)	(0.2874)
PC * SH	+/–			−0.3109
				(0.2875)
MR	+	0.6142***	0.6146***	0.6145***
		(0.0884)	(0.0888)	(0.0888)
LNMC	+	0.0033	–0.0017***	–0.0014
		(0.0054)	(0.0007)	(0.0009)
Obs.		1776	1776	1776
Panel C: March 26–30, 2020				
Intercept	N/A	−0.1311***	−0.1139***	−0.1164***
		(0.0198)	(0.0198)	(0.0209)
PC	+	−0.0007		–0.0013
		(0.0032)		(0.0033)
SH	+		0.0134**	0.0055
			(0.0066)	(0.0124)
PC * SH	+/–			0.0113
				(0.0140)
MR	+	0.4036***	0.4036***	0.4036***
		(0.0331)	(0.0331)	(0.0331)
LNMC	+	0.0047***	0.0040***	0.0041***
		(0.0007)	(0.0007)	(0.0008)
Obs.		1776	1776	1776

Note: Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$. PC is political connections, SH is Sharia compliance, MR is daily market return, and LNMC is the natural logarithm of daily market capitalization. The figures in brackets are heteroscedasticity-robust standard errors.

4.4. Conclusions

This study aimed to examine the value of political connections and Sharia compliance for firms during the COVID-19 pandemic in the Indonesian stock market. I summarize the findings as follows. First, I find that there was a stock market anomaly during the COVID-19 pandemic in Indonesia in that the pandemic interacted positively with the Indonesian stock market. Thus, there has been an increase in investors' performance during the COVID-19 pandemic. Second, my sectoral event-study analysis found that industry sectors closely related to human needs (i.e., agriculture; basic industry and chemicals; consumer goods industries) tended to see a positive increase in their market value. In addition, my market capitalization analysis results indicate that firms with a small market capitalization tended to see a positive increase in their market value. Third, my event-study analysis (i.e., baseline, sectoral, and market capitalization analysis) shows that the positive reactions of the market to the COVID-19 pandemic were more pronounced in the case of Sharia-compliant firms (both those with and without political connections). Then, I conduct pooled regression analysis to sharpen my investigation on the role of Sharia compliance and political connections. I find that political connections played no significant role during the COVID-19 pandemic in Indonesia. However, I find strong evidence that Sharia compliance was beneficial for firms during the COVID-19 pandemic when the government announced tax incentives. These findings are robust to a longer estimation window for event-study analysis and another Sharia compliance proxy for pooled regression analysis. Taken together, my findings suggest that being Sharia-compliant has been valuable during the COVID-19 pandemic due to the announcement of tax incentives by the government.

The results of this study have several practical implications. First, the existence of a stock market anomaly implies investors' confidence in future returns and in an eventual market recovery. Therefore, financial market authorities should implement strategies to maintain and even increase investors' confidence. In addition, the government should intervene by implementing stimulus packages to alleviate stock market panic. Second, the positive market value is more pronounced in the case of Sharia-compliant firms in particular industry sectors. One of the factors that drove the market value of Sharia-compliant firms was the tax incentives announcement by the government. In this regard, policymakers should devise further policies for managing tax incentives and consider their potential impact on firms' value during

the pandemic. Third, from a wider perspective, the results of this study provide support for the position that adopting Islamic law (Sharia) can be considered a viable financial alternative during the pandemic. Finally, this study also provides important insights for investors. The findings can assist prospective investors in their investment decision-making on the stock market. Moreover, investors should also learn how to manage their portfolio risks, given the continued spread of COVID-19 in Indonesia.

As with all studies, my study is not without its limitations. First, I only investigated the short-term impact of the COVID-19 pandemic on the Indonesian stock market because of the short event period. The long-term impact of the COVID-19 pandemic may be different from its short-term impact. Second, for the purposes of my regression analysis, I only considered three episodes at the beginning of the COVID-19 pandemic in Indonesia, i.e., the first case of COVID-19, the first death case caused by COVID-19, and the tax incentives announcement. There are still other important events related to COVID-19 in Indonesia, e.g., when the government published a regulation on large-scale social restrictions. The most appropriate imminent expansion for future study would be to investigate the long-term impact of COVID-19 in Indonesia. In addition, future research should also consider looking into other important events related to COVID-19 in Indonesia.

Chapter 5

The Environmental Performance of Sharia-compliant Firms: Do Political Connections Matter?

5.1. Introduction

The issue of corporate environmental performance in emerging markets has recently attracted a great deal of attention (Zhang et al., 2021). Some studies focus on the impact of political connections on corporate environmental performance (Zhang et al., 2019), and, generally, scholars find that politically connected firms show better corporate environmental performance (Lin et al., 2015; Zhang, 2017; Zhang et al., 2019). However, no study so far investigates whether political connections impact the environmental performance of Sharia-compliant and non-Sharia-compliant firms differently. I fill this gap by exploring the effect of political connections on Sharia-compliant firms' environmental performance.

Whereas previous studies measure environmental performance by ratings of environmental strengths, environmental concerns (Zhang et al., 2019), environmental awards, environmental certifications, and environmental crises (Lin et al., 2015), this study employs the Program for Pollution Control Evaluation and Rating (PROPER) rankings. I choose the PROPER ranking as a corporate environmental performance measurement for several reasons. Indonesia's PROPER program was the first large-scale program in the developing world—it was established in 1995—to use information disclosure to reduce industrial pollution (García et al., 2007, 2009). In addition, according to the Ministry of Environment and Forestry,[36] the PROPER rankings reflect the firms' levels of compliance with environmental regulations, which include several indicators, i.e., environmental management systems, energy efficiency, emissions reduction, 3R (reduce, reuse, and recycle) for hazardous and toxic waste and solid non-hazardous and toxic waste, biodiversity protection, and community development. Furthermore, PROPER is an effective program in achieving

[36] For more details, see https://proper.menlhk.go.id/proper/kriteria

firms' emissions reduction (García et al., 2007). Therefore, a number of countries set out to emulate Indonesia's PROPER program by creating similar programs (World Bank, 2000). Finally, the PROPER ranking is an accurate measure of firms' environmental performance (see García et al., 2009).

There are several theoretical reasons for expecting that political connections would have a different effect on the environmental performance of Sharia-compliant firms compared to non-Sharia-compliant firms. First, politically connected firms have greater access to capital (Claessens et al., 2008) and more ability to borrow from banks (Fu et al., 2017; Ling et al., 2016). Therefore, they have higher leverage than their non-connected counterparts (Bliss & Gul, 2012; Chkir et al., 2020; Faccio, 2010). This would assist firms by easing the financial constraints on environmental investments, lowering the cost of capital associated with environmental investments, and encouraging them to adopt good environmental practices. Conversely, according to the OJK,[37] Sharia screening restricts firms from having higher debt—particularly interest-based debt. In addition, Sharia screening means that Sharia-compliant firms have lower leverage (Hayat & Hassan, 2017). Second, political connections generally exist in countries with high-level corruption and a weak legal system (Faccio, 2006). Moreover, political connections motivate tunneling (Hu et al., 2020) and may facilitate firms bribing government officials to avoid environmental regulations and penalties (Zhang, 2017). Conversely, Sharia-compliant firms must carry out their business using only *halal*[38] methods and based on ethical activities (Hassan and Harahap, 2010).

To the best of my knowledge, this is the first study to examine the impact of political connections on Sharia-compliant firms' environmental performance. My work makes a novel contribution to the literature on corporate environmental performance by showing that political connections matter in enhancing the environmental performance of non-Sharia-compliant firms. Conversely, for Sharia-compliant firms, political connections seem less valuable in enhancing their environmental performance. The remainder of this paper is structured as follows. Section 2 describes the research data and methodology. Section 3 presents the empirical results,

[37] OJK Regulation Number 35/POJK.04/2017 on the Criteria and Issuance of the Sharia Securities List: To be considered as Sharia compliant, a firm has to meet financial screening ratios as follows: a) their total interest-based debt compared to their total assets should not exceed 45%, and b) their total interest income and non-*halal* income compared to their total operating income and other income should not exceed 10%.

[38] In this regard, corruption and bribery are *haram* (prohibited by Islamic law).

discussion, and robustness checks. Finally, Section 4 provides the concluding remarks of this study.

5.2. Data and Methodology

5.2.1. Sample selection

I use a unique sample of firms with high potential impact on the environment and selected by the Ministry of Environment and Forestry of The Republic of Indonesia for coverage under the PROPER program over the 2013 to 2019 period. I restrict my sample to all listed firms in the Indonesia Stock Exchange (IDX) with available data. Finally, my sample consists of 261 Sharia-compliant firm-year observations and 119 non-Sharia-compliant firm-year observations[39].

5.2.2. Variable definition

5.2.2.1. Dependent variable: Corporate environmental performance

I measure corporate environmental performance based on the PROPER rankings made by the Ministry of Environment. PROPER rankings use five color codes, i.e., gold, green, blue, red, and black, indicating the best to the poorest environmental performance. I use a score for each PROPER rank, as presented in Table 5.1.

Table 5. 1. PROPER rank.

PROPER rank	Definition	Score
Gold	The firms have consistently demonstrated environmental excellence in the production process.	5
Green	The firms have carried out environmental management beyond compliance with the laws.	4
Blue	The firms have performed environmental management that met with the laws.	3
Red	The firms have made some environmental management efforts but failed to meet the requirements stipulated in the laws.	2
Black	The firms have been negligent in a manner that caused environmental pollution (violated the law).	1

The Ministry of Environment evaluated and awarded PROPER ranks based on operating facilities such as manufacturing plants. Therefore, firms with more than

[39] I define a Sharia-compliant firm as a firm with Sharia stocks (i.e., one listed on the ISSI).

one facility can earn more than one PROPER rank. I averaged the score for firms that have more than one PROPER rating using the following formula:

$$\overline{\text{CEP}} = \frac{\sum_{i=1}^{n} k_i P_i}{\sum_{i=1}^{n} k_i}, \quad \text{.....} \quad (1)$$

where CEP is corporate environmental performance (i.e., the average PROPER score), k_i is the number of PROPER ranks assigned to each firm, and P_i is the PROPER score. The data on PROPER ranks are taken from the Ministry of Environment.[40]

5.2.2.2. Independent variables: Political connections

The independent variable is political connections, defined as a politically connected firm. According to Faccio (2006) and Habib et al. (2017), a firm is considered politically connected if the larger shareholders (ownership of more than 10%) or the top management are currently or formerly a) members of parliament, b) ministers or heads of local government, or c) people who have close relationships with top officials.

$$\text{Political connections} = \begin{cases} 1, & \textit{if politically connected firm,} \\ 0, & \textit{otherwise.} \end{cases}$$

Data on political connections are extracted manually from firms' annual reports.

5.2.2.3. Control variables

I include several firm-level variables in my analysis to control for various factors that may be relevant to corporate environmental performance. In particular, I include firm size, firm age, leverage, ROA, and growth. The natural logarithm of total assets measures firm size. Firm age represents the number of years since a firm was incorporated. Leverage is calculated by the sum of the total short-term and total long-term debt divided by total assets. Meanwhile, ROA is measured by the ratio of net income divided by total assets. Finally, I use the growth rate of the firm's total assets over the last fiscal year (growth). The data for the control variables are collected from the firms' financial reports and annual reports.

[40] Regulation of the Minister of Environment concerning the firms' PROPER rating, which is published annually.

5.2.3. Model specification

I employ a regression analysis to investigate the impact of political connections on corporate environmental performance. The regression model is given below:

$$CEP_{i,t} = \alpha + \beta_1 PC_{i,t} + \beta_2\ Controls_{i,t} + DUM_{Industry} + DUM_{Year} + \varepsilon_{i,t}, \quad \text{.....} \quad (2)$$

where $CEP_{i,t}$ is corporate environmental performance; $PC_{i,t}$ is political connections; $Controls_{i,t}$ are the control variables, i.e., firm size (FS), firm age (FA), leverage (Lev), return on assets (ROA), and growth; $\varepsilon_{i,t}$ is the error term; meanwhile the subscripts i and t describe the cross-sectional and time dimensions of the panel data respectively. Furthermore, I take industry and year dummies into consideration in my regression model.

5.3. Empirical Results and Discussions

5.3.1. Descriptive statistics

The descriptive statistics of the main variables are presented in Table 5.2. Approximately 63.60% of the Sharia-compliant sample and 63.03% of the non-Sharia-compliant sample are politically connected firms. The mean difference in corporate environmental performance between Sharia-compliant firms and non-Sharia-compliant firms is insignificant. Although I expect that Sharia-compliant firms should have higher environmental performance than non-Sharia-compliant firms, I do not find evidence of this. Furthermore, because of Sharia financial screening, Sharia-compliant firms have lower leverage than non-Sharia-compliant firms.

Table 5.3 reports the correlations among corporate environmental performance, political connections, and the control variables. The correlation coefficient of all variables does not exceed 0.8, indicating that multicollinearity is not an issue in my analysis.

Table 5. 2. Descriptive statistics.

Variables	Mean		S.D.		Difference
	SCF	NSCF	SCF	NSCF	*t*-Test
CEP	3.0686	3.0299	0.4745	0.4006	0.8233
PC	0.6360	0.6303	0.4821	0.4848	0.1077
FS	29.6302	29.3244	1.3288	1.5793	1.8367*
FA	43.4904	50.1597	19.0555	22.9650	–2.7638***
Lev	0.4063	0.6048	0.2899	0.5063	–3.9905***
ROA	6.9203	7.7358	7.8873	14.1479	–0.5885
Growth	0.1053	0.1115	0.2570	0.2148	–0.2466

Note: *** $p < 1\%$ and * $p < 10\%$. SCF is Sharia-compliant firms, whereas NSCF is non-Sharia-compliant firms. The *t*-test measures the mean differences of all variables between Sharia-compliant firms and non-Sharia-compliant firms.

Table 5. 3. Correlation matrix.

Panel A: Sharia-compliant firms							
	CEP	PC	FS	FA	Lev	ROA	Growth
CEP	1						
PC	0.1876*	1					
FS	0.3348*	0.2900*	1				
FA	0.2684*	0.0982	0.1805*	1			
Lev	–0.0309	–0.0482	0.0635	–0.0090	1		
ROA	0.1484	0.1119	0.2104*	0.3505*	0.0399	1	
Growth	–0.0332	–0.0238	0.0002	–0.0659	0.0888	0.0550	1
Panel B: Non-Sharia-compliant firms							
	CEP	PC	FS	FA	Lev	ROA	Growth
CEP	1						
PC	0.2611*	1					
FS	–0.0003	0.2409*	1				
FA	0.1851	0.3228*	0.1098	1			
Lev	–0.0476	0.1097	–0.1052	–0.2881*	1		
ROA	0.0626	0.2224	0.0895	0.7717*	–0.3840*	1	
Growth	0.0050	0.1132	0.0422	–0.0298	–0.1618	0.1719	1

Note: * Indicates statistical significance at the 1% level.

5.3.2. Baseline results

Table 5.4 presents the results of my baseline analysis. Columns (1) through (3) of Table 5.4 report that political connections have a positive but insignificant impact on the environmental performance of Sharia-compliant firms. Conversely, for non-Sharia-compliant firms (Columns (4) through (6) of Table 5.4), their environmental

performance is impacted positively and significantly by political connections. These results remain robust after adding both industry and year dummies.

Table 5. 4. Baseline results.

Variables	Sharia-compliant firms			Non-Sharia-compliant firms		
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	–0.0737	–0.8728	–0.9117	3.3635***	3.68e+00***	3.6654***
	(–0.08)	(–0.74)	(–0.77)	(2.63)	(3.32)	(3.17)
PC	0.0831	0.0374	0.0349	0.2120*	2.77e–01*	0.3106**
	(1.17)	(0.68)	(0.61)	(1.85)	(1.90)	(2.16)
FS	0.0976***	0.1189***	0.1210***	–0.0204	–2.16e–02	–0.0264
	(3.20)	(3.20)	(3.17)	(–0.45)	(–0.58)	(–0.71)
FA	0.0051	0.0054**	0.0056**	0.0045*	–4.31e–05	–0.0016
	(1.52)	(2.09)	(2.12)	(1.90)	(–0.01)	(–0.43)
Lev	–0.0680	–0.0368	–0.0266	–0.0747	–4.06e–02	–0.0768
	(–0.90)	(–0.72)	(–0.49)	(–0.90)	(–0.70)	(–1.14)
ROA	0.0007	0.0020	0.0012	–0.0063	–7.08e–03*	–0.0062
	(0.15)	(0.42)	(0.26)	(–1.53)	(–1.76)	(–1.58)
Growth	–0.0272	–0.0094	0.0026	0.0188	–3.43e–02	0.0408
	(–0.48)	(–0.16)	(0.04)	(0.18)	(–0.30)	(0.35)
Industry	No	Yes	Yes	No	Yes	Yes
Year	No	No	Yes	No	No	Yes
Obs.	261	261	261	119	119	119
R^2	0.1660	0.2360	0.2460	0.1050	0.1563	0.2137

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$. The figures in brackets are t statistics.

Political connections are less valuable in enhancing environmental performance for Sharia-compliant firms compared to non-Sharia-compliant firms. A plausible reason is that political connections run contrary to Islamic ethics. In Indonesia, political connections are closely related to rent-seeking behaviors (e.g., bribery) (Apriliyanti & Kristiansen, 2019). In addition, cases of bribery by firms seeking to avoid compliance with environmental regulations occur commonly in Indonesia (Dethier, 2017; Kuncoro, 2006). Conversely, compliance with Islamic principles (Sharia) prohibits bribery. It is reasonable that Sharia-compliant firms should be less flexible in establishing political connections. Hence, for Sharia-compliant firms, the benefits of having connections to politicians in enhancing environmental performance may not outweigh the cost of establishing those connections. Meanwhile, non-Sharia-compliant firms do not have obligations to comply with Islamic law. Hence, they are more flexible in establishing connections to politicians and can benefit from these connections in increasing their environmental performance.

5.3.3. Robustness check

Following Jacobs et al. (2010), I use environmental certification (i.e., ISO 14001 certification) as an alternative proxy for corporate environmental performance. The environmental certification is a dummy variable equal to 1 if the firm is ISO 14001 certified and 0 otherwise. I then repeat Eq. (2) using the logit model with environmental certification as the dependent variable.

Table 5. 5. Robustness check using ISO 14001 certification as the dependent variable.

Variables	Sharia-compliant firms			Non-Sharia-compliant firms		
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	–64.7648**	–139.3027***	–108.6952***	–11.6003	–4.2537	0.8615
	(–2.14)	(–4.18)	(–4.19)	(–0.62)	(–0.23)	(0.06)
PC	1.5261	1.4182	3.2544	6.2487**	5.7025***	6.1057***
	(0.86)	(0.88)	(1.45)	(2.69)	(2.66)	(3.22)
FS	2.2655**	4.4190***	3.3041***	0.6283	0.1178	–0.0759
	(2.12)	(4.08)	(3.78)	(0.94)	(0.19)	(–0.15)
FA	0.0594	0.0678	0.0579	–0.0725	0.0300	–0.0126
	(1.45)	(1.49)	(1.10)	(–1.45)	(0.47)	(–0.22)
Lev	2.1752	3.1071	11.2923*	–12.1131**	–11.6846***	–10.7640***
	(0.62)	(0.53)	(1.74)	(–2.59)	(–2.75)	(–3.00)
ROA	–0.1511	–0.1234	–0.0865	–0.0068	8.37e–06	0.0222
	(–1.50)	(–1.05)	(–0.56)	(–0.13)	(0.00)	(0.39)
Growth	–3.1160*	–4.0051*	–4.9440**	–2.3207	–1.7767	–1.2160
	(–1.85)	(–1.84)	(–2.41)	(–1.02)	(–0.80)	(–0.58)
Industry	No	Yes	Yes	No	Yes	Yes
Year	No	No	Yes	No	No	Yes
Obs.	261	261	261	119	119	119

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$. The figures in brackets are z statistics.

Table 5.5 reports that political connections are associated insignificantly with the environmental performance of Sharia-compliant firms. Meanwhile, for non-Sharia-compliant firms, political connections are significantly associated with environmental performance, indicating that politically connected non-Sharia-compliant firms are likely to have better environmental performance than those without political connections. These results are basically consistent with my baseline analysis and, indeed, support it.

5.4. Conclusions

This study examines the impact of political connections on the environmental performance of Sharia-compliant firms and non-Sharia-compliant firms. I first prove that, for Sharia-compliant firms, political connections play less of a role in increasing environmental performance. Sharia-compliant firms may establish connections to politicians carefully so as not to violate Islamic law. Second, non-Sharia-compliant firms benefit from their connections in enhancing their environmental performance. Non-Sharia-compliant firms may be more flexible in forming connections to the politicians because they are not bound by Islamic law. These findings offer recommendations for firms, especially Sharia-compliant firms. Political connections seem to be of limited value to Sharia-compliant firms in enhancing their environmental quality. Therefore, when Sharia-compliant firms choose to establish political ties with the government, they should consider the specific functions of their connections. They should consider objectively whether establishing political connections will actually improve their environmental performance.

Chapter 6

Concluding Remarks

6.1. Conclusions

This dissertation examined the value of political connections and Sharia compliance in Indonesia. Specifically, I investigated the impact of political connections and Sharia compliance on firms' financial and environmental performance in four empirical studies. Chapters 2 to 4 analyzed the relationship between political connections, Sharia compliance, and firms' financial performance, while Chapter 5 explored how firms' environmental performance is influenced by political connections and Sharia compliance. The main findings in each chapter are summarized as follows.

First, Chapter 2 examined the relationship between political connections, Sharia compliance, and M&A performance. I find strong evidence of a positive relationship between political connections and both short- and long-term M&A performance. Political connections seem to function as a beneficial resource for firms, helping them improve their M&A performance. Meanwhile, I find no evidence that Sharia compliance influences M&A performance. Interestingly, a substitution relationship is apparent as Sharia compliance reduces the positive impact of political connections on short- and long-term M&A performance.

Second, Chapter 3 investigated the impact of political connections on firms' value following their addition to or removal from the ISSI. I find that political connections play an essential role in enhancing firms' value before their inclusion in the ISSI but cease to be beneficial thereafter. These findings support the results of the previous chapter in that having connections with politicians does not seem to benefit Sharia-compliant firms.

Building on analyses of the value of political connections and Sharia compliance in normal times, Chapter 4 investigated whether either is beneficial for firms during a turbulent period, specifically the COVID-19 pandemic. The findings show that a stock market anomaly occurred at the beginning of COVID-19 in Indonesia. Specifically, the stock market reacted positively to the pandemic, and this positive

reaction was more pronounced for Sharia-compliant firms (both those with and without political connections). I find strong evidence that Sharia compliance was beneficial when the government announced tax incentives. By contrast, political connections seem to have played no significant role in enhancing firms' value during the COVID-19 pandemic in Indonesia.

Finally, Chapter 5 explored the environmental performance of Sharia-compliant firms, and whether political connections influence the corporate environmental performance of Sharia-compliant and non-Sharia-compliant firms. I find strong evidence that political connections enhance the environmental performance of non-Sharia-compliant firms but not that of Sharia-compliant firms.

Taken together, the findings of this dissertation prove that political connections are valuable for enhancing the financial and environmental performance of non-Sharia-compliant firms. Additionally, there is a substitution relationship between political ties and Sharia compliance: Sharia compliance seems to mitigate the role of political connections in enhancing firms' financial and environmental performance. However, during the crisis period of the COVID-19 pandemic, I find no evidence that political connections have influenced firms' financial performance. By contrast, Sharia compliance has been valuable during the pandemic, in terms of the tax incentives introduced by the government.

The dissertation results have both theoretical and practical implications. At the theoretical level, my studies confirm previous findings on the nature of political connections. In particular, some previous research suggests that having connections to politicians is closely related to corruption. For instance, political ties have been found to be valuable in not only high-corruption countries (Brockman et al., 2013; Faccio, 2010) but also low-corruption countries such as Denmark, indicating that corruption may exist to some extent in every country (Amore & Bennedsen, 2013). This dissertation yields new insights into the relationship between political connections and ethical investment, as Sharia compliance prohibits engaging in corruption. Specifically, my findings suggest that political connections are valuable for non-Sharia-compliant firms in terms of enhancing financial and environmental performance, whereas Sharia-compliant firms do not benefit from having ties to politicians.

This dissertation also contributes to rent-seeking theory. My studies support previous findings that, generally, political rent-seeking is valuable in Indonesia

(Fisman, 2001; Fu et al., 2017; Leuz & Oberholzer-Gee, 2006). By incorporating both political rent-seeking and Sharia compliance into the theoretical framework, I demonstrate that engaging in political rent-seeking—prohibited by Islamic law—is not beneficial in a Sharia-compliant environment. My theoretical model will be useful for investigating firms' strategies on political rent-seeking and/or Sharia compliance. It is particularly applicable in emerging economies with poor institutional settings, where political rent-seeking is ubiquitous and plays an essential role in corporate operations. Nevertheless, given the prevalence of political rent-seeking worldwide, I believe my theoretical framework can be applied in most (if not all) other countries. In this regard, it should be noted that Islamic finance has already been adopted in non-Muslim and Muslim-minority countries

At a practical level, my findings can help companies, investors, and policymakers to further develop strategies. First, political ties seem of limited value to Sharia-compliant firms seeking to enhance their financial and environmental performance. It may, therefore, be more beneficial for these firms to avoid allocating resources to forging political connections. Second, from a broader perspective, becoming Sharia-compliant can be considered a viable alternative for firms to secure finance during turbulent periods. Third, my findings may be useful to investors or fund managers considering their investment decisions: during normal times, they should pay more attention to whether firms have political connections than to whether they are Sharia-compliant. In particular, it may be better to avoid investing in stocks of Sharia-compliant firms with political ties. Finally, the dissertation results can guide policymakers on developing regulations to reduce inequality. Although my findings confirm that political rent-seeking is a valuable resource in Indonesia, such behavior may lead to inequality.[41] In particular, compared to non-connected peers, politically connected firms are more likely to gain government-controlled resources because of unfair conditions resulting from rent-seeking behavior. Such behavior is forbidden by Islamic law. Furthermore, as my findings indicate that Sharia compliance can mitigate the value of political connections, it is reasonable to infer that Sharia compliance is a suitable mechanism to reduce inequality.

[41] Additionally, some previous studies reveal that political rent-seeking increases inequality (Angelopoulos et al., 2021; Gupta et al., 2002; Rodriguez, 2004).

6.2. Future Research

There are many interesting ways in which this study's inquiries could be extended. First, the role of political connections and Sharia compliance could be analyzed in other countries, for instance in minority Muslim countries and/or countries with low corruption. In institutional environments differing from that in Indonesia, the influence of political connections and Sharia compliance on firms' performance may differ. It would also be worthwhile to conduct a comparative study with global coverage or multi-country analysis.

Second, the current unavailability of data[42] prevented analysis of how political connections and Sharia compliance affect corporate environmental performance during the turbulent period of the COVID-19 pandemic. Future studies should investigate this relationship, as well as the pandemic's impact on long-term firm financial performance. Finally, since political ties are closely related to bribery or corruption (both prohibited by Islamic law), future studies should employ a corruption proxy to deepen understanding of the relationship between political connections and Sharia compliance.

[42] For firms' financial performance during COVID-19, I use daily-basis data. However, data for firms' environmental performance are only available annually, and relevant data have not been released at the time I conducted the fourth study.

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Appendix A

Appendix to Chapter 2

Table A. 1. Multicollinearity test.

Variable	VIF		
	Model 1	Model 2	Model 3
PC	1.1103		5.4561
SC		1.1002	4.0986
PC * SC			7.8926
FS	1.4691	1.4406	1.5060
LV	1.4585	1.4894	1.5040
ROA	1.2644	1.2530	1.2694
Risk	1.1226	1.0765	1.2642
Growth	1.2488	1.2624	1.2678

Note: Models 1, 2, and 3 refer to Columns (1), (2), and (3) of Table 2.3, respectively

Appendix B

Appendix to Chapter 3

Table B. 1. Multicollinearity test.

Variable	VIF	
	Addition to ISSI	Deletion from ISSI
PC	1.1612	1.1170
FS	1.1435	1.1695
LV	1.1175	1.5980
ROA	1.1962	1.6789
Risk	1.0436	1.0337
Growth	1.0948	1.0149
FA	1.0642	1.0580

Table B. 2. Breusch–Pagan test.

Addition to ISSI	BP	df	*p*-value
CAR [–10, 0]	100.44	7	< 2.2e–16
CAR [0, +10]	34.583	7	1.339e–05
Deletion from ISSI			
CAR [–10, 0]	171.25	7	< 2.2e–16
CAR [0, +10]	162.65	7	< 2.2e–16

Appendix C

Appendix to Chapter 4

Table C. 1. The Breusch–Pagan Lagrange Multiplier test.

Regression model	1	2	3
χ^2	0.02	0.00	2.16
Pvalue	0.4487	1.0000	0.0708

Note: Regression model 1 is for episode 1 (March 2–4, 2020); regression model 2 is for episode 2 (March 11–13, 2020); and regression model 3 is for episode 3 (March 26–30, 2020).

Table C. 2. Multicollinearity test.

Variable	VIF		
	Model 1	Model 2	Model 3
Panel A: March 2–4, 2020			
PC	1.1283		2.9351
SC		1.0001	1.7855
PC * SC			3.4232
MR	1.0000	1.0000	1.0000
LNMC	1.1284	1.0002	1.1293
Panel B: March 11–13, 2020			
PC	1.1269		2.9313
SC		1.0002	1.7852
PC * SC			3.4228
MR	1.0000	1.0000	1.0000
LNMC	1.1269	1.0002	1.1277
Panel B: March 11–13, 2020			
PC	1.1269		2.9425
SC		1.0004	1.7892
PC * SC			3.4297
MR	1.0000	1.0000	1.0000
LNMC	1.1269	1.0004	1.1276

Note: Models 1, 2, and 3 refer to Columns (1), (2), and (3) of Table 4.7, respectively

Table C. 3. Sector analysis.

Event Window	Agriculture					Basic industry and chemicals				
	Full Sample [21]	PC [5]	SH [8]	PCS [5]	NPCNS [3]	Full sample [68]	PC [6]	SH [37]	PCS [12]	NPCNS [13]
[−30,0]	−0.0939**	−0.0414	−0.1239	−0.1028*	−0.0867	−0.0709**	−0.0684	−0.0981*	−0.0339	−0.0292
	(−2.5234)	(−0.7439)	(−1.5304)	(−3.2664)	(−0.6352)	(−2.7376)	(−1.2900)	(−2.2337)	(−0.8356)	(−1.0290)
[−20,0]	−0.0732**	−0.0222	−0.1042	−0.0904*	−0.0470	−0.0557**	−0.0406	−0.0705	−0.0262	−0.0480*
	(−2.6105)	(−0.5446)	(−1.8020)	(−2.6696)	(−0.4601)	(−2.3861)	(−1.0778)	(−1.7783)	(−0.6131)	(−2.0246)
[−10,0]	−0.0700***	−0.0252	−0.1086*	−0.0644	−0.0510	−0.0387*	0.0022	−0.0651	0.0018	−0.0200
	(−3.1864)	(−0.6832)	(−2.4681)	(−2.2137)	(−0.7621)	(−1.8814)	(0.1293)	(−1.8324)	(0.0690)	(−0.8429)
[−5,0]	−0.0612***	−0.0129	−0.1049**	−0.0496	−0.0443	−0.0239*	−0.0160	−0.0452**	0.0147	−0.0025
	(−3.1322)	(−0.3903)	(−2.8872)	(−1.7322)	(−0.7762)	(−1.8942)	(−0.8186)	(−2.4854)	(0.4375)	(−0.1087)
[−3,0]	−0.0490**	0.0026	−0.0890**	−0.0530	−0.0218	−0.0155	−0.0130	−0.0329*	0.0125	0.0072
	(−3.0442)	(0.1117)	(−3.0055)	(−2.2045)	(−0.5484)	(−1.2979)	(−0.8423)	(−1.9210)	(0.3850)	(0.3110)
[0,0]	0.0089	0.0278	−0.0156**	0.0274	0.0120	0.0167**	0.0124***	0.0005	0.0473	0.0367
	(1.2009)	(2.2553)	(−3.0506)	(1.2165)	(3.4737)	(2.5270)	(4.9679)	(0.0911)	(2.3502)	(1.6765)
[0,3]	0.0394*	0.0252	0.0368	0.0796	0.0029	0.0300**	0.0328	0.0221	0.0474*	0.0348
	(2.2522)	(0.8873)	(1.6293)	(1.3596)	(0.1536)	(3.0536)	(1.0635)	(1.7693)	(2.0841)	(1.2203)
[0,5]	0.0254	0.0428	−0.0177	0.0896	0.0043	0.0449***	0.0331	0.0210	0.0841*	0.0824
	(1.1836)	(1.6891)	(−1.1156)	(1.1468)	(0.1365)	(3.6245)	(0.8785)	(1.5680)	(3.4037)	(1.9460)
[0,10]	−0.0152	0.1036*	−0.0819**	−0.0232	−0.0219	0.0542**	0.0052	0.0389	0.0803*	0.0966
	(−0.4885)	(2.7188)	(−2.8343)	(−0.2240)	(−0.5689)	(2.6197)	(0.0576)	(1.4430)	(2.0268)	(1.7321)
[0,20]	−0.0129	0.1183	−0.0811	−0.0406	−0.0038	0.0402	−0.0531	0.0252	0.0361	0.1299
	(−0.3049)	(2.1894)	(−1.5912)	(−0.3124)	(−0.0317)	(1.3695)	(−1.2525)	(0.5879)	(0.7263)	(1.6727)
[0,30]	0.0320	0.1673*	−0.0436	0.0497	−0.0215	0.0899***	0.0899	0.0457	0.1492	0.1610
	(0.7820)	(2.6395)	(−0.6520)	(0.5616)	(−0.2013)	(3.2153)	(1.2936)	(1.2891)	(2.1903)	(2.0626)

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$ (two-tailed). The total number of firms included in each sector is in brackets. The figures in parentheses are t-statistics. PC is politically connected non-Sharia-compliant firms, SH is non-politically connected Sharia-compliant firms, PCS is politically connected Sharia-compliant firms, and NPCNS is non-politically connected non-Sharia-compliant firms.

Table C. 4. Sector analysis (continued).

Event Window	Consumer goods industry					Finance			
	Full sample [49]	PC [5]	SH [24]	PCS [15]	NPCNS [5]	Full sample [82]	PC [37]	SH [3]	NPCNS [42]
[−30,0]	−0.0159	0.0037	−0.0470	0.0178	0.0128	−0.0386*	−0.0293	−0.0892	−0.0433
	(−0.7095)	(0.1514)	(−1.2369)	(0.4844)	(0.2780)	(−1.6876)	(−1.4876)	(−1.1683)	(−1.0514)
[−20,0]	−0.0137	−0.0098	−0.0311	−0.0089	0.0517	−0.0174	−0.0060	−0.1234	−0.0199
	(−0.6704)	(−0.4674)	(−0.7892)	(−0.4675)	(2.4356)	(−0.7890)	(−0.3048)	(−1.5304)	(−0.5083)
[−10,0]	−0.0234	−0.0133	−0.0540	0.0102	0.0122	−0.0134	−0.0151	−0.1230	−0.0041
	(−1.4988)	(−1.0311)	(−1.8522)	(0.6747)	(0.5730)	(−0.8808)	(−0.9905)	(−1.5641)	(−0.1568)
[−5,0]	−0.0328**	−0.0102	−0.0586*	−0.0052	−0.0143	−0.0211	−0.0243*	−0.1134	−0.0117
	(−2.4216)	(−0.6004)	(−2.3839)	(−0.3750)	(−0.4553)	(−1.5436)	(−1.8366)	(−1.4758)	(−0.4995)
[−3,0]	−0.0340**	0.0071	−0.0585*	−0.0147	−0.0157	−0.0110	−0.0205*	−0.0858	0.0028
	(−2.5740)	(0.4555)	(−2.4535)	(−0.9302)	(−0.7091)	(−0.8856)	(−1.7868)	(−1.4223)	(0.1294)
[0,0]	0.0016	0.0074	−0.0183	0.0284	0.0109	0.0036	−0.0022	−0.0217	0.0106
	(0.1681)	(2.1435)	(−1.6818)	(1.1727)	(0.6423)	(0.4628)	(−0.4269)	(−1.5545)	(0.7263)
[0,3]	0.0496*	−0.0131	0.0445	0.0972	−0.0060	0.0371**	0.0271	0.0585	0.0443**
	(2.0475)	(−0.6401)	(1.1292)	(2.1289)	(−0.3063)	(2.8979)	(1.5460)	(1.3116)	(2.2669)
[0,5]	0.0364	−0.0038	0.0293	0.0971	−0.0719	0.0176	0.0081	0.0475	0.0239
	(1.4859)	(−0.3548)	(0.9784)	(1.8226)	(−0.7351)	(1.1233)	(0.4101)	(1.8255)	(0.9437)
[0,10]	0.0529*	0.0308	0.0370	0.1108	−0.0221	−0.0040	−0.0193	0.0348	0.0066
	(1.9276)	(0.5856)	(1.2319)	(1.5567)	(−0.3748)	(−0.1677)	(−0.8781)	(0.4309)	(0.1561)
[0,20]	0.1013*	−0.0201	0.0564	0.2681	−0.0623	−0.0443	−0.0782**	−0.0616	−0.0131
	(1.9711)	(−0.2496)	(1.5765)	(1.8427)	(−0.5522)	(−1.3533)	(−2.2791)	(−0.2652)	(−0.2403)
[0,30]	0.1526**	0.0315	0.1109***	0.3121	−0.0045	−0.0108	−0.0463	−0.0153	0.0207
	(2.9912)	(0.3181)	(3.4759)	(2.2204)	(−0.0261)	(−0.3262)	(−1.1205)	(−0.0787)	(0.3933)

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$ (two-tailed). The total number of firms included in each sector is in brackets. The figures in parentheses are t-statistics. PC is politically connected non-Sharia-compliant firms, SH is non-politically connected Sharia-compliant firms, PCS is politically connected Sharia-compliant firms, and NPCNS is non-politically connected non-Sharia-compliant firms.

Table C. 5. Sector analysis (continued).

Event Window	Infrastructure, utilities, and transportation					Mining				
	Full sample [70]	PC [10]	SH [26]	PCS [27]	NPCNS [7]	Full sample [43]	PC [6]	SH [15]	PCS [16]	NPCNS [6]
[−30,0]	−0.0378	−0.0430	−0.0145	−0.0436*	−0.0949	−0.0729**	−0.2369*	−0.0905**	0.0166	−0.1034
	(−1.4609)	(−1.1951)	(−0.2517)	(−1.7640)	(−0.8730)	(−2.6418)	(−3.1306)	(−2.3360)	(0.4544)	(−1.0977)
[−20,0]	−0.0172	−0.0184	0.0067	−0.0218	−0.0870	−0.0333	−0.1502	−0.0425	0.0343	−0.0732
	(−0.8091)	(−0.5158)	(0.1404)	(−0.9731)	(−1.3547)	(−1.4368)	(−1.8681)	(−1.4806)	(1.1181)	(−0.8753)
[−10,0]	−0.0078	0.0040	0.0152	−0.0198	−0.0635	−0.0274	−0.1260	−0.0509	0.0345	−0.0348
	(−0.3554)	(0.1197)	(0.2888)	(−0.9129)	(−1.9243)	(−1.3021)	(−1.5202)	(−1.6093)	(1.4893)	(−0.5401)
[−5,0]	−0.0217	−0.0238	−0.0045	−0.0300	−0.0512	−0.0430**	−0.1381	−0.0365	−0.0063	−0.0620
	(−1.4079)	(−0.9711)	(−0.1302)	(−1.4858)	(−2.0002)	(−2.3349)	(−2.3174)	(−1.3631)	(−0.2920)	(−0.8377)
[−3,0]	−0.0138	−0.0351	0.0019	−0.0215	−0.0118	−0.0359**	−0.0774	−0.0364	−0.0097	−0.0632
	(−1.1680)	(−1.4688)	(0.0692)	(−1.5648)	(−1.0371)	(−2.4612)	(−1.9321)	(−1.5516)	(−0.6013)	(−0.9506)
[0,0]	0.0017	−0.0151	−0.0055	0.0168	−0.0058	−0.0001	0.0191	−0.0027	0.0111	−0.0427
	(0.2411)	(−0.8208)	(−0.3774)	(1.8929)	(−0.6849)	(−0.0122)	(0.7246)	(−0.1530)	(1.0760)	(−1.0222)
[0,3]	0.0230*	0.0251	0.0229	0.0176	0.0412	0.0240	−0.0081	0.0659	0.0130	−0.0193
	(1.9974)	(1.2182)	(0.8419)	(1.5085)	(1.7747)	(1.5188)	(−0.5130)	(1.6460)	(0.9944)	(−0.7423)
[0,5]	0.0166	0.0189	0.0179	0.0114	0.0281*	0.0167	−0. 0369	0.0590	0.0115	−0.0211
	(1.3195)	(1.2121)	(0.6453)	(0.6294)	(2.3140)	(0.7765)	(−1.0830)	(1.0431)	(0.9968)	(−0.5229)
[0,10]	0.0064	0.0205	0.0316	−0.0180	−0.0131	−0.0078	−0.0580	0.0210	−0.0172	−0.0051
	(0.3726)	(1.2239)	(0.8950)	(−0.6385)	(−1.2843)	(−0.3120)	(−1.3909)	(0.3578)	(−0.7019)	(−0.0612)
[0,20]	0.0053	−0.0154	0.0689	−0.0343	−0.0493	0.0358	0.0555	0.0425	0.0388	−0.0082
	(0.1833)	(−0.5137)	(1.1227)	(−0.8464)	(−0.9044)	(0.9849)	(0.6780)	(0.4860)	(1.1597)	(−0.0816)
[0,30]	0.0740**	0.0380	0.1082	0.0603	0.0510	0.1054**	0.1666*	0.1487	0.0802**	0.0030
	(2.2264)	(1.6846)	(1.5459)	(1.2172)	(0.5774)	(2.7967)	(2.2690)	(1.5971)	(2.8246)	(0.0314)

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$ (two-tailed). The total number of firms included in each sector is in brackets. The figures in parentheses are t-statistics. PC is politically connected non-Sharia-compliant firms, SH is non-politically connected Sharia-compliant firms, PCS is politically connected Sharia-compliant firms, and NPCNS is non-politically connected non-Sharia-compliant firms.

Table C. 6. Sector analysis (continued).

Event Window	Miscellaneous industries					Property, real estate, and building construction				
	Full sample [39]	PC [5]	SH [19]	PCS [8]	NPCNS [7]	Full sample [72]	PC [6]	SH [29]	PCS [27]	NPCNS [10]
[−30,0]	−0.0014	0.0236	−0.0048	−0.0991	0.1016	−0.0332	−0.1993	−0.0579	−0.0088	0.0726
	(−0.0394)	(0.5420)	(−0.1024)	(−1.1301)	(0.8975)	(−0.9740)	(−1.0782)	(−1.1335)	(−0.1796)	(0.7741)
[−20,0]	0.0041	0.0297	−0.0020	−0.0533	0.0678	−0.0199	−0.1302	−0.0249	−0.0097	0.0332
	(0.1454)	(0.9451)	(−0.0528)	(−0.9798)	(0.6654)	(−0.6946)	(−1.0369)	(−0.5339)	(−0.2314)	(0.3997)
[−10,0]	0.0361	0.0508	0.0546	−0.0265	0.0470	−0.0056	−0.0162	−0.0119	0.0029	−0.0038
	(1.6353)	(1.5738)	(1.6003)	(−0.9494)	(0.6495)	(−0.2944)	(−0.2843)	(−0.3908)	(0.1338)	(−0.0445)
[−5,0]	0.0030	0.0397	0.0112	−0.0324	−0.0052	−0.0066	−0.0382	−0.0158	0.0105	−0.0072
	(0.1649)	(1.0943)	(0.4003)	(−1.0941)	(−0.0976)	(−0.4244)	(−0.8978)	(−0.6337)	(0.7395)	(−0.0957)
[−3,0]	0.0032	0.0491	0.0024	−0.0301	0.0104	0.0008	−0.0059	0.0040	0.0044	−0.0138
	(0.2099)	(2.4979)	(0.1032)	(−1.0109)	(0.2478)	(0.0693)	(−0.4007)	(0.1820)	(0.3517)	(−0.2693)
[0,0]	0.0053	0.0100	0.0097	0.0150	−0.0212	−0.0008	0.0145**	−0.0098	0.0054	−0.0005
	(0.4441)	(0.4790)	(0.6624)	(0.4561)	(−0.5600)	(−0.1339)	(4.7601)	(−1.0091)	(1.2472)	(−0.0167)
[0,3]	0.0100	−0.0197	0.0063	0.0713	−0.0288	−0.0169	0.0800	−0.0353	−0.0191	−0.0157
	(0.6696)	(−0.6710)	(0.3165)	(2.0141)	(−0.7463)	(−1.2369)	(2.0121)	(−1.4065)	(−1.3726)	(−0.3404)
[0,5]	0.0204	0.0147	0.0082	0.0549	0.0179	−0.0120	0.0514	−0.0298	−0.0088	−0.0068
	(1.4765)	(0.6786)	(0.4443)	(1.3945)	(0.4873)	(−0.8253)	(1.4448)	(−1.2009)	(−0.6318)	(−0.1065)
[0,10]	−0.0139	−0.0006	−0.0123	−0.0351	−0.0032	−0.0131	0.0008	−0.0253	−0.0242	0.0438
	(−0.5894)	(−0.0094)	(−0.3771)	(−0.5672)	(−0.0550)	(−0.6899)	(0.0185)	(−0.7022)	(−0.9079)	(0.9209)
[0,20]	−0.0513	0.0645	−0.0609*	0.0176	−0.1867	−0.0286	0.0031	−0.0269	−0.1012*	0.1438**
	(−1.4319)	(0.9943)	(−1.7450)	(0.1792)	(−1.5258)	(−1.0181)	(0.0480)	(−0.6815)	(−1.9520)	(2.4871)
[0,30]	−0.0144	0.0682	0.0075	0.0560	−0.2134	0.0250	0.1459	0.0096	−0.0325	0.1524*
	(−0.2790)	(1.2694)	(0.1484)	(0.6056)	(−0.9323)	(0.8148)	(2.1376)	(0.2263)	(−0.5690)	(1.9025)

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$ (two-tailed). The total number of firms included in each sector is in brackets. The figures in parentheses are t-statistics. PC is politically connected non-Sharia-compliant firms, SH is non-politically connected Sharia-compliant firms, PCS is politically connected Sharia-compliant firms, and NPCNS is non-politically connected non-Sharia-compliant firms.

Table C. 7. Sector analysis (continued).

Event Window	Trade, services, and investment				
	Full sample [148]	PC [17]	SH [72]	PCS [37]	NPCNS [22]
[−30,0]	−0.0380**	−0.0233	−0.0587**	−0.0084	−0.0311
	(−2.1572)	(−0.3653)	(−2.1817)	(−0.2935)	(−0.7595)
[−20,0]	−0.0099	0.0101	−0.0169	−0.0375**	0.0443
	(−0.6222)	(0.2036)	(−0.6441)	(−2.1228)	(1.0960)
[−10,0]	0.0028	0.0480**	−0.0180	−0.0197	0.0735**
	(0.2214)	(2.2448)	(−0.8680)	(−1.1657)	(2.2274)
[−5,0]	0.0116	0.0603	−0.0051	−0.0024	0.0521*
	(1.0575)	(1.2755)	(−0.3229)	(−0.1592)	(2.0550)
[−3,0]	0.0117	0.0347	−0.0005	0.0050	0.0452*
	(1.3997)	(1.2551)	(−0.0418)	(0.4127)	(1.8523)
[0,0]	0.0058	0.0244*	0.0024	0.0056	0.0029
	(1.6014)	(2.5940)	(0.6259)	(0.5782)	(0.2665)
[0,3]	0.0033	0.0035	0.0040	0.0105	−0.0112
	(0.4677)	(0.1361)	(0.4873)	(0.6360)	(−0.5745)
[0,5]	0.0051	0.0121	0.0033	0.0061	0.0039
	(0.5925)	(0.7137)	(0.2574)	(0.3384)	(0.1658)
[0,10]	−0.0035	−0.0117	−0.0125	−0.0226	0.0639*
	(−0.2443)	(−0.2659)	(−0.5729)	(−0.8617)	(1.7854)
[0,20]	−0.0157	0.0088	−0.0343	−0.0325	0.0543
	(−0.6757)	(0.1407)	(−0.9483)	(−0.8423)	(0.8447)
[0,30]	−0.0043	−0.0318	0.0025	−0.0318	0.0412
	(−0.1650)	(−0.5293)	(0.0604)	(−0.7394)	(0.5816)

Note: *** $p < 1\%$, ** $p < 5\%$, and * $p < 10\%$ (two-tailed). The total number of firms included in each sector is in brackets. The figures in parentheses are t-statistics. PC is politically connected non-Sharia-compliant firms, SH is non-politically connected Sharia-compliant firms, PCS is politically connected Sharia-compliant firms, and NPCNS is non-politically connected non-Sharia-compliant firms.