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Relationships Gone Wrong: Estimating the Value of Political Connections to Firms in Turkey

By

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During the summer of 2016, Turkey experienced increased political uncertainty due to the failed coup attempt against President Erdoğan's government. Using variation in the political affiliations of firms listed in the Istanbul stock exchange, we find that politically connected firms were associated with more negative stock returns relative to politically unaffiliated firms during political and policy shocks. Additionally, firms that were associated with the coup plotters experienced even worse stock performances relative to both politically connected and unaffiliated firms. We find that these political affiliations are persistent both in the past and in the future. In the context of the Gezi Park Protests of 2013, we show that they interact with social unrest and social media to affect stock returns, specifically we show that social media activity does affect politically connected firms. These results suggest that politically connected firms may have a valuation premium due to their political connections. In addition, if a firm is perceived as a threat by the government, its valuation may suffer additional losses.

Political regimes are often accompanied by a small subset of followers that can be considered their economic elite. While political regimes depend on their economic elite for financial and economic support, firms that have connections with the political regime will strive to strengthen their relationships in order to be part of this economic elite, creating a two-way street of mutual benefits. However, as regimes are subject to political shocks and uncertainty, this two-way street may not be as beneficial for politically connected firms. Can this relationship be the source of additional losses for these politically connected firms? In other words, can political connections be the source of a valuation premium for well-connected firms, especially in countries with weak political institutions, and if so, how do political environments affect this valuation premium?

In this paper, we attempt to use the failed coup attempt in Turkey during the summer of 2016 and its immediate aftermath to study these phenomena. On the night of July 15, 2016, members of a religious organization, the *Gülenist* movement, that had infiltrated the military and other government institutions organized a coup attempt to take over the government control. The coup attempt failed after President Erdoğan had called for his supporters to take to the streets, but the political uncertainty faced by citizen and firms alike was still at an unprecedented level. When markets opened on the Monday after the failed coup attempt on July 18, the effects of this political uncertainty and chaos were felt throughout the entire market. The political atmosphere remained tense until the night of July 20, when President Erdoğan declared the state of emergency, giving him extra-judicial powers and ensuring a definite change in policy towards a hostile business environment.

We initially study the impact of two events during this episode: the failed coup attempt as an exogenous political shock and the declaration of the state of emergency as a policy shock. Our analysis examines 110 publicly traded firms that are listed on the Istanbul stock exchange (BIST). We will use information about political affiliations of these firms to estimate whether or not politically connected firms

[1] Firstly, I would like to thank Barışcan Göç, with whom I started this research project. Without him I would be not where I am, let alone writing this master's thesis. I would like to thank Prof. Ali Hortaçsu, who has been extremely helpful and kind to me since the beginning of this project in his class and throughout this past year. I would like to thank my parents, my sister and my friends for their support. I would like to thank my preceptor Pablo Peña for his support. I would like to thank Francisco del Villar for their help and suggestions as a TA. Also, I would like to thank Prof. Jeffrey Russel for his guidance on interpreting political risk in the asset pricing literature.

have a valuation premium. Additionally, we will investigate the impact of increased political uncertainty and a change in government policy on the valuations of these firms with different political affiliations. This methodology will be particularly useful in our setting as the Turkish market provides a well-defined set of firms with different political affiliations.

We then conduct similar studies for significant events, both political and economic, that have occurred in the past 10 years on the same set of firms to examine the persistence of these political affiliations. Concentrating on the Gezi Park Protests during the summer of 2013, we investigate the interaction between these political affiliations and social unrest and social media activity on Twitter, using data from two papers: Demirel-Pegg (2020) for daily data on protests and repression by the government and Ozturkcan, Kasap, Cevik, & Zaman (2017) for aggregate daily Twitter data.

The results from analyzing the first event, the failed coup attempt, indicate that firms associated with the coup plotters experience a more negative impact relative to both politically connected firms and politically unaffiliated firms. Politically connected firms also experience more negative stock returns relative to those of politically unaffiliated firms. In our analysis of the second event, the declaration of the state of emergency, politically connected firms once again experience more negative stock returns relative to those of politically unaffiliated firms. The impact of both shocks (political and policy shocks) generate a similar outcome for politically connected firms, confirming our initial suspicion that politically connected firms enjoy a valuation premium due to their political connections. In our analysis of the second event, financial and operational characteristics such as price volatility and exposure to the domestic market are also significant factors unlike those from our analysis of the first event.

Surprisingly, firms associated with the coup plotters did not experience more negative returns in the second event. This led us to investigate this episode of political turmoil as a whole by introducing lagged effects. We analyze whether the impact of the political shock induced by the failed coup was absorbed on the first day of trading or whether this impact spilled over into the following trading days. Interestingly, we find that political affiliations of any kind have no significant impact on Tuesday, July 19, indicating that there were no significant spillover effects from the previous day. However, firms associated with coup plotters experience significant negative returns on Wednesday, which may explain why these firms did not experience a negative impact on Thursday. The negative impact on Wednesday may have been due to rumors of a possible declaration of state of emergency.

There are several possible interpretations of our findings. The first is that politically connected companies are more reliant on the sustainability of the political status quo and the continuation of business-friendly government policy. Our initial political shock, the failed coup attempt, increases uncertainty about the sustainability of the existing political regime, even though it did not result in a regime change. Our second policy shock, the declaration of state of emergency, raises questions about the sustainability of business-friendly government policy. In the eyes of stock market participants, the declaration of state of emergency can be seen as a further deviation from business-friendly policies to a more authoritarian rule with a decreased focus on economic stimulation and standards of the rule of law. This will negatively impact politically connected firms which are more reliant on the continuation of business-friendly government policy.

Our second interpretation is that firms associated with the coup-plotters suffered the most negative returns because investors expected retaliation from the government. Prior to the failed coup attempt, Turkey was already experiencing a witch hunt for the supporters of the *Gülenist* movement. Therefore, any type of retaliation from the government would be unsurprising. Our findings might suggest that if a firm is perceived as a threat by the government due to its political affiliation, this might also be a factor in its valuation in addition to a firm's political connectedness. This is the case for pro-*Fethullah* firms.

A third interpretation can be structured around the political chaos after the failed coup attempt. Many prominent individuals in the conservative community in Turkey were under increased scrutiny for possible connections to the *Gülenist* movement in the aftermath of the coup attempt. Market participants

may have been wary of being associated with these individuals. This may have pushed market participants to see firms unaffiliated with the parties in this conflict as a safe haven, leading these companies to less negative returns on average. However, the evidence for this interpretation is not as strong as the ones mentioned before.

We find that the political affiliations identified during the failed coup attempt do persist across time, both before and after the failed coup attempt. We also show some possible evidence that these political affiliations matter to firms in the context of non-political shocks as well. In our investigation of the effect of social unrest and social media during the Gezi Park Protests we find that repression by the government, rather than protests leads to negative returns to firms connected to the government and Pro-Fethullah firms. We interpret this as investors disregarding the protests as a potential attempt at regime change and increased repression as a trigger for the protests to escalate to such an attempt, thus increasing the possibility of the potential loss of the benefits enjoyed by firms connected to the government and Pro-Fethullah firms, which at the the time were politically aligned. We also find that daily aggregate tweet data absorbs all the effects of protests and repression by the government, leading to a much larger negative effect on returns to firms connected to the government and Pro-Fethullah firm. We see this as evidence that social media activity does, in fact, affect changes in stock prices for politically connected firms. We interpret this as investors taking extremely high social media activity as a change in the political status quo, which in turn affects returns to politically connected firms.

We build our methodology on the political economy literature on political connectedness, which uses stock market returns as a measure of the impact of political shocks on the given firms. This literature argues that political connections of the firm can result in a valuation premium. Fisman (2001) found that the value of political connections accounted for 23% of firms' value in the Indonesian stock market during the last years of President Suharto's rule. Similarly, Acemoglu et al (2017) provides evidence that protests, which happened during the Arab Spring in Egypt, played an important role in curtailing rents captured by politically connected firms because investors perceived that the ability of connected firms to siphon off rents would be curtailed by institutional and political changes. We differ from these papers and the rest of this literature because of the nature of the political shock episode we observe. Previous literature examines the impact of political regime change on the stock performance of politically connected firms. In contrast to previous literature, we analyze an episode in which there is no expectation of a regime change after the coup attempt. This is because the coup attempt was a failure and President Erdoğan reinstated his political authority by the time we observe market reaction to the coup attempt on Monday, July 18, 2016. Some other papers concerning the value of political connections to firms that find similar evidence are Johnson and Mitton (2003) for Malaysia, Khwaja and Mian (2005) for Pakistan, and Ferguson and Voth (2008) for Weimar Germany.

The second literature we are building on studies the effect of political risk on stock returns. Regardless of political connections, corporate finance and asset pricing literature claim that firms' valuation will be affected by the political risk that they are exposed to. This literature helps us to understand how to interpret the effect of increased political risk in the episode we study. Pastor & Veronesi (2011) indicates that the implicit put protection provided by the government is reduced by political uncertainty; therefore, increased uncertainty commands a risk premium even though political shocks are orthogonal to fundamental economic shocks. Furthermore, their empirical evidence shows that larger heterogeneity among government policies increases risk premia. Secondly, Damodaran (2003) argues that political risk can be viewed as one of the factors in calculating each firm's discount rate. Depending on firm's exposure to the domestic market, the impact of political risk on a single firm will change.

Different from the previous political economy literature, we controlled for firm's exposure to the domestic market while measuring impact of political connectedness. We believe this consideration helps our study to avoid a possible omitted variable bias since our sample reflects great heterogeneity in terms of domestic market exposure. In addition, we found that our proxy for exposure to the domestic market, domestic sales as a percentage of total sales, is actually significant in our results for a policy shock. This

might indicate that previous literature might have omitted variable bias since they did not control for the level of exposure to the domestic market. Secondly, unlike the previous literature, we were able to see the ramifications of political connectedness under two different political shocks: a political shock caused by increased political uncertainty due the coup attempt and a policy shock introduced by potential damages to a government's economic policy due to a declaration of state of emergency.

I. Data

Our sample comprised of 110 firms that were publicly traded on the Istanbul Stock Exchange (BIST) on July 15, 2016. The sample of firms were either part the stock index BIST 100, or they were in the largest 100 publicly traded firms by market capitalization on the Istanbul Stock Exchange. We excluded four publicly traded sports clubs, and firms with less than 5% floating shares due to liquidity concerns.

We acquired two different type of data in order to analyze impacts of political affiliation on stock returns: 1) stock market and accounting data for companies on our sample; 2) data on political affiliations of the companies in our sample.

A. Share Price, Ownership and Accounting Data

We obtained closing prices in TRY for each of the firms in our sample between July 15, 2016, and July 21, 2016, from *Thomson ONE* database. We used these data to construct daily stock returns in order to measure the impact of given political shocks. Using the same share price data, we constructed price volatility for the most recent year for each firm, and calculated market capitalization on July 15, 2016, as a proxy for firms' size.

The same database also provides share ownership data. We use this information from *Thomson ONE* on the breakdown of firms' ownership in order to identify if a firm has a strategic foreign partnership (or part of a foreign joint venture) or military ownership. We classified *strategic partnership* as ownership by non-financial institutions that are potentially seeking operational synergies and *military ownership* as ownership either by military pension fund (Ordu Yardimlasma Kurumu, OYAK) or directly by the army.

We collected accounting data on each firm's total debt in the most recent filing (Y16'H1 including current portion of LT Debt) from *Thomson ONE* in order to calculate firm's market leverage. In addition, we compiled data on domestic sales as a percentage of total revenue from each firms' most recent financial filing (either Y16'H1 or Y16'). Unfortunately, there are a few companies that do not report breakdown of their revenue by geographies in their financial filings; therefore, we used the most recent investor presentations, or financial activity reports from the same financial year in order to replace missing financial reporting. We used ICB classification reported by *Thomson ONE* for industry classification. We modified the classification by adding *Cement Producer* and *Holding Company* classifications to existing classifications.

We repeat this same process to obtain financial and accounting data for events studied in Section IV.

B. Political Affiliation

In this study, we are interested in two main types of political affiliations. Firstly, we want identify companies that are politically connected to Erdoğan's ruling government party, *AKP*. Secondly, we would like to identify firms associated with the *Gülenist* movement or the coup plotters. We leveraged politically polarized structure of business associations in Turkey as a tool to identify political affiliations of the firms in our sample.

There were three main business groups in Turkey before the failed coup attempt: *MUSIAD*, *TUSKON*, and *TUSIAD*. These three groups reflect opposing political stances. *MUSIAD* has been strongly identified to be politically affiliated with Erdoğan's ruling party[2], while *TUSKON* had explicit connections with the Gülen movement[3]. In contrast, *TUSIAD* - the largest, oldest and most influential business group among these three groups - represented a more liberal and secular political stance and received criticism from President Erdoğan for not supporting government's economic policies on several occasions[4]. We will use associations with these business group as an indicator of firms' political affiliations.

We will identify a firm as *politically connected* or as a *government supporter* if it has explicit ties with *MUSIAD.* These ties can be defined as any explicit relationship including direct membership of the firm, membership of an executive board member or a significant share owner, participation in *MUSIAD* sponsored events, or office visits/meetings with *MUSIAD* executive members.

Similarly, firms will be identified as associated with the coup or as a *pro-Fethullah* firm if they have connections with *TUSKON.* We use a similar strategy to identify these connections with *TUSKON.* Additionally, we used the data on military ownership to improve our identification. Since a major part of military was involved in the coup plotting, we use ownership by the military or the military pension fund as an indicator of association with the coup plotters in the eyes of the investors.

Lastly, if firms either had similar connections with *TUSIAD* or did not have any identifiable connections, we classify them as *politically unaffiliated* firms. We assumed and observed that associations with these three business were highly mutually exclusive.

In order to collect political affiliation data, we used publications of *MUSIAD*, *TUSKON* and *TUSIAD* to identify participating firms or individuals related to a firm (such as executive board members and principal shareholders). Firms listed on the Istanbul Stock Exchange disclose the names of their board members, and principal shareholders. Using this data, we were able identify associations at the individual level as well. In addition, we examined sources of online local and national media dating prior to the failed coup attempt in order to further classify any existing associations with these business groups.

Figure 1: *Breakdown by Number of Firms*

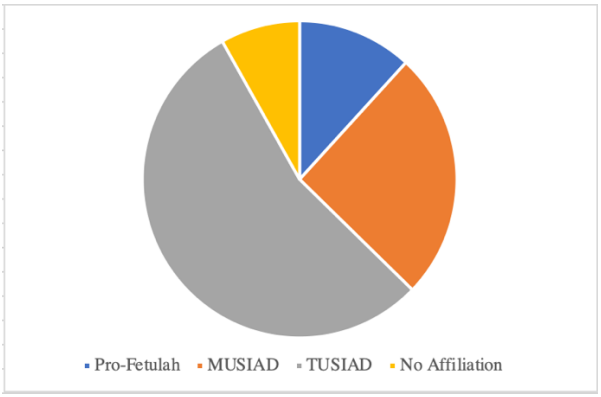
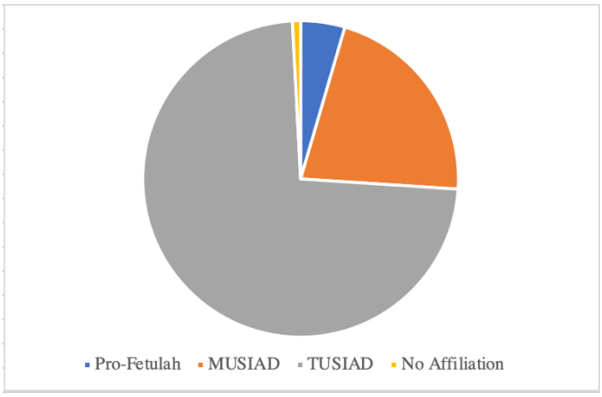


Figure 2: *Breakdown by Market Capitalization*



We identified 13 pro-*Fethullah* or firms associated with the coup-plotter, 28 firms associated with *MUSIAD*, 60 firms associated with *TUSIAD*, and 9 firms with no explicit political or business group affiliations. In Figure 2, we can see that firms associated with *TUSIAD* comprise a large portion (73%) of our sample by market capitalization on July 15, 2016. *MUSIAD* follows *TUSIAD* as the second largest

[2] "Conflict between Gülen Movement and Turkey's ruling AKP reflected in business world".hurriyetdailynews.com, 11 January 2013.
[3] Ibid
[4] Ibid

group both by number and market size. In addition, it is important to note that business associated with the coup is a significant proportion of our sample (5% by market cap).

In terms of persistence, it is important to note that after the failed coup-attempt that all Pro-Fethullah firms were taken over by government trustees and eventually privatized; therefore, for studies after the failed coup attempt, we treat *Pro-Fethullah* firms as is they were members of *Musiad*.

Figure 3:

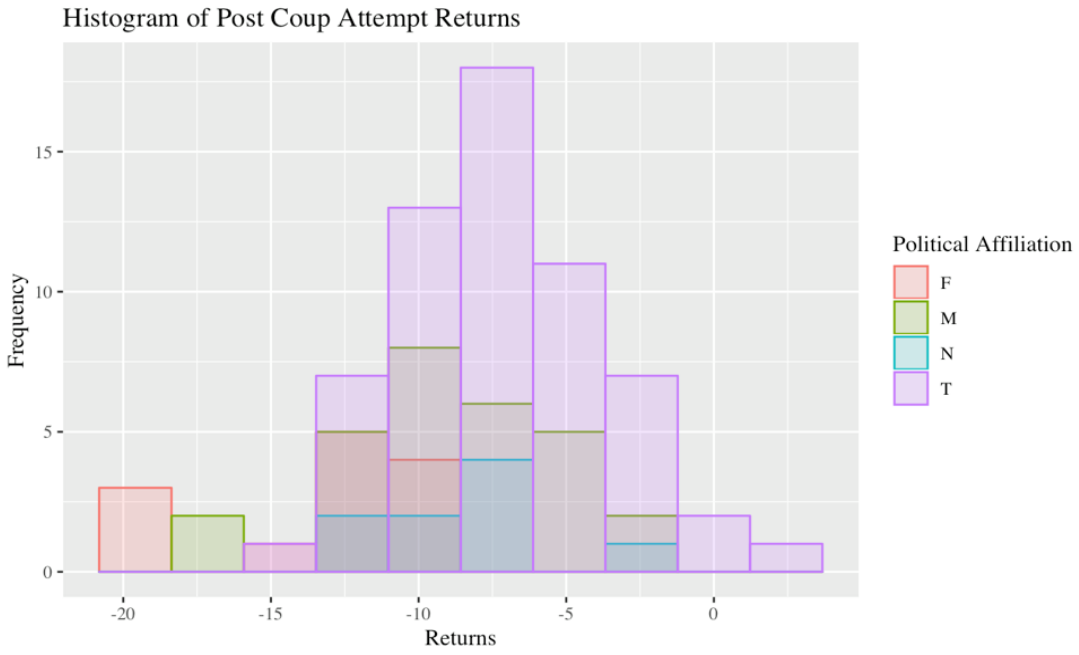
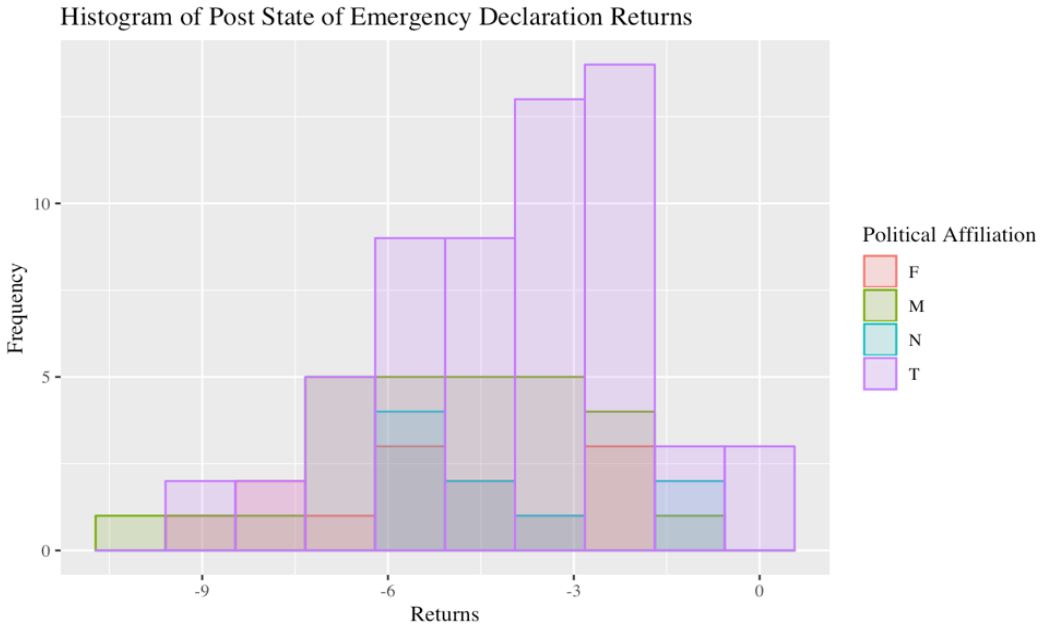


Figure 4:



In Figure 3 and 4, F: Pro-Fethullah; M: MUSIAD (Government Supporter); T: TUSIAD; N: No business group association

Table 1: *Summary Statistics by Political Affiliation*

Political Affiliation	Market Cap	N	Debt Percentage	Price Volatility	Foreign Partnerhsip
F	1814126.9	13	17.59	38.37	2
M	3991133.2	28	34.24	30.70	2
N	480371.1	9	28.92	29.09	2
T	6338740.8	60	38.27	30.81	14

Political Affiliation	Percent Domestic Sale	Post Coup Attempt Returns	Post SOE Returns
F	92.17	-13.41	-5.20
M	78.28	-8.53	-4.98
N	72.18	-8.64	-4.25
T	76.14	-7.19	-4.03

In Table 1: Pro-Fethullah; M: MUSIAD (Government Supporter); T: TUSIAD; N: No business group association. Market Cap is given in thousand TRY. Price Volatility is a measure of unadjusted annualized volatility for the most recent year.

II. Turkey's Failed Coup Attempt of 2016 as a Political Shock

In this section, we will provide a brief historical overview of Turkish politics and history of the *Gülenist* movement, which was the organization behind the failed coup attempt. We will emphasize the relationship between two key power groups: Erdoğan's ruling government party, *AKP*, and Fethullah Gülen's religious movement, *Gülenist* movement. We then will examine the failed coup attempt as an unexpected exogenous political shock, and the declaration of the state of emergency as a policy shock.

A. The Gülenist Movement and Its Relationship with Erdoğan's Political Movement

Since the transition to multi-party politics in 1946, Turkey has experienced two coups and two putsches. The most recent coup occurred in 1980 after a period of intense political strife and instability, where the military outlawed many of the established political parties and movements. It was in this political and social power vacuum, that Fethullah Gülen and his movement found a place within Turkish society and politics.

Fethullah Gülen is an imam that started gathering a relatively large following in the 1970s, that dramatically increased its presence in the 1980s and '90s. The *Gülenist* movement went from being an organization largely dedicated to religious education to one that was active on multiple fronts, influencing social life as well as political institutions in Turkey. By 1998, the organization had schools across Turkey and the world, owned an influential newspaper, had opened up a bank with initial investment from the prime minister at the time and even held meetings with Pope John Paul II on interfaith dialogue[5].

The growing influence of religion in politics and society unnerved the military who organized a putsch in 1997 that changed much of the political and social dynamics in Turkey. Ultimately, this change in the political and social atmosphere in Turkey led Fethullah Gülen to a self-imposed exile in 1999 to the United States, where he still resides in Saylorsburg, Pennsylvania.

Despite the putsch in 1997, religious and conservative politics in Turkey was still on the rise and by 2002, a religious conservative party, Justice and Development Party (*AKP*), had gained the majority of the seats in Turkish parliament and formed a government. Headed by Recep Tayyip Erdoğan, the party was able to deliver economic prosperity and relative political stability resulting in an average growth rate of 6%[6]. The *Gülenist* movement and the predecessors of the AKP had been allies throughout the 90s, so the two groups became significant political and social allies during AKP's tenure ruling the government.

Wary of another putsch from the military, which saw itself as the guardian of secularism in Turkey, Erdoğan and the AKP attempted to get rid of established army officials through legal investigations, largely conducted by *Gülenist* members of the judiciary. This allowed the movement to enter government institutions, like the military, and high-ranking positions within the judiciary and various other ministries that had not been possible before due to pressure from the secularist military.

During this timeframe, it can be said that the *Gülenist* movement shared significant portions of the responsibility and authority with Erdoğan and the AKP. However, this honeymoon period did not last forever as the movement often found itself at odds with the increasingly authoritarian politics of Erdoğan and the AKP in the early 2010s. The situation was exacerbated during the summer of 2013 when anti-AKP and anti-Erdoğan protests occurred and the *Gülenist* movement did not back Erdoğan, Fethullah going so far as giving sermons supporting the protestors against police violence.

This tension and desire from Erdoğan to take all the reigns of the government into his own hands reached its tipping point when the AKP attempted to pass a law changing the structure of test-prep educational businesses in November 2013[7], which the *Gülenist* movement heavily relied on to gain new members. As a reaction, pro-Fethullah members of the judiciary orchestrated an unexpected investigation

[5] "100 soruda Fethullah Gülen ve Hareketi" HaberTurk. 16 April 2010.
[6] https://data.oecd.org/gdp/real-gdp-forecast.htm
[7] "Erdoğan: Dershaneler Kapatılacak, Geri Adım Yok". aktifhaber.com, 4 November 2013

of corruption allegations against prime minister Erdoğan's cabinet and his family on December 17, 2013[8]. This was seen as a dramatic escalation of conflict between Erdoğan and the *Gülenist* movement that resulted in significant political turmoil and loss of support for the AKP. This investigation, however, was not enough to topple Erdoğan, which allowed the prime minister to start what has since been described as a witch-hunt[9] against the *Gülenist* movement in the public and private sphere. By 2016 many of the educational business were shut down, and although Prime minister Erdoğan's attempts to remove the so-called *parallel state* continued, it had significantly decreased its intensity after he became President in the summer of 2013; however, the tension between these two groups remained an issue that dominated the political narrative in Turkey and was often used by Erdoğan as a gambit in elections up to the failed coup attempt.

B. The Failed Coup Attempt and Its Immediate Aftermath

On July 15th 2016 around 20:00, pro-*Fethullah* members of the army were sent to the *Fatih Sultan Mehmet* and *Bosphorus* bridges in Istanbul and by 23:00 these bridges were shut down[10]. At the same time military jets were flying above the capital, Ankara. By midnight, the pro-*Fethullah* faction of the army occupied *Taksim Square* in Istanbul and had taken over the state broadcaster, TRT, where a newscaster was forced to read out a statement written by the coup-plotters. By 00:30, many international news and media outlets had declared that the military had taken over the government.

The coup attempt appeared to be successful until President Erdoğan went on live TV via FaceTime around 01:00 and called on his supporters to take to the streets and to defy the military rule[11]. This became a turning point in the night from both a political standpoint and a military standpoint. Not long after this statement the coup plotters bombed the parliament and many other government buildings in Ankara, most notably occupying major transportation hubs like Ataturk Istanbul Airport. This left President Erdoğan on his plane, which could not land until 03:00 when the Airport was taken back by non-Fethullah associated army and civilian supporter of the President[12].

Until early morning of Saturday July 16th, skirmishes continued between the coup plotters and non-Fethullah associated members of the military and police force across Turkey, mostly concentrated in Ankara and military bases outside of cities. This led to the death of over 300 people, 179 of which were civilian deaths[13]. At 06:30, President Erdoğan gave a speech outside of the airport declaring the coup attempt was over and accusing Fethullah and his organization of orchestrating the coup attempt, marking the end of the coup attempt[14].

The immediate aftermath of coup attempt resulted in the removal of the known pro-Fethullah individuals within all public institutions. By the 17th of July, two days after the coup attempt, the government had stated that they expected at least 38,000 arrests and had already arrested what it perceived to be the leaders of the coup within the military[15]. When markets closed Monday evening on July 18th BIST 100, the stock market index of Turkey, was down over 9%. By July 20th 45,000 military officials, police officers, and civil servants were either arrested or suspended, including 2,700 judges and 15,000 teachers; 163 generals and admirals, making up 45% of the upper tier of the Turkish military forces, were detained[16].

At 23:55 on July 20th, President Erdoğan declared a renewable three-month state of emergency, allowing the President to "issue decrees having the force of law on matters necessitated by the state of emergency" and temporarily suspending the European Convention on Human Rights[17]; the next morning

[8] "İstanbul'da yolsuzluk ve rüşvet operasyonu" Hürriyet. 17 December 2013.
[9] "Başbakan: İninize Gireceğiz Didik Didik Edeceğiz". Dokuzeylulgazetesi.com. 22 December 2013.
[10] "Dakika dakika köprü direnişi". Haberturk.com. 19 July 2016.
[11] "President of Turkey Urges Resistance as Military Attempts Coup". The New York Times. 15 July 2016.
[12] "Erdoğan'ın uçağı Atatürk Havalimanı'na indi". Sözcü. 16 July 2016.
[13] "Death toll rises to 265 in failed Turkey coup: official". Reuters.com. 16 July 2016.
[14] "Turkish coup bid crumbles as crowds answer call to streets, Erdoğan returns". Reuters 16 July 2016.
[15] "Turkey to release 38,000 from jail; frees space for plotters". New Zealand Herald. 18 August 2016.
[16] "Turkey is expected to curb military power as purge expands". Washington Post. 19 July 2016
[17] "Turkey suspends European Convention on Human Rights in wake of coup" The Independent. 21 July 2016.

BIST 100 was down 4.43%. By the end of July, 72 former soldiers were given a sentence of life time imprisonment; by the end of September 70,000 people had been processed in association with the coup attempt[18]. A number coup plotters who had escaped to Greece before the coup was declared over and Fethullah Gülen himself were not extradited[19], resulting in an increasingly hostile anti-western rhetoric from President Erdoğan, government officials and pro-government media. The state of emergency was renewed until July 2018, when it reached its 2-year limit.

III. Political Affiliations and Stock Returns

In our primary empirical strategy we use standard event study methodology to describe the impact of two key events on stock returns: the failed coup attempt and the declaration of the state of emergency. We treat the initial failed coup attempt as an exogenous political shock and the declaration of state emergency as a policy shock.

Our primary approach for discerning the impact of political and policy shocks is to study their influence on the stock market valuations of firms with different political affiliations. We will estimate stock returns after boths shocks as functions of political affiliation, financial and operational firm-specific characteristics. The empirical model we estimate can be written as

$$r_{stock_i} = D'_{MUSIAD_i}\gamma + D'_{Pro-Fetullah_i}\delta + X'_i\nu + \epsilon_i$$

where X_i is a vector of controls, γ and δ are vectors of coefficients attached to each one of the political affiliation dummies in D_{MUSIAD_i} and $D_{Pro-Fetullah_i}$, and ϵ_i is an error term. Since our sample includes politically unaffiliated firms (firms associated with TUSIAD or firms with no business group associations), the coefficients in and measures how the stock market returns of a group of firms with a certain political affiliation changed relative to the returns of non-affiliated firms. Our strategy will be plausible if, absent the political and policy shocks taking place during these episodes, no systematic differences would exist between the returns of firms with different political affiliations, which means we assume standard identification assumption:

$$Cov(D_{MUSIAD_i}, \epsilon_i | X_i) = Cov(D_{Pro-Fetullah_i}, \epsilon_i | X_i) = 0$$

The validity of our model depends on the controls we include in our vector X_i. We include controls for size, leverage, historical volatility, level of exposure to the domestic market, foreign partnership support and industry sectors. Several considerations motivated us to include the given controls. Replicating Acemoglu at al (2017)'s methodology, we included size (market cap prior to the failed coup attempt), leverage (debt as a percentage of market valuation, total debt + market cap.), and industry sectors. We calculate leverage using market value of the firm instead of book value unlike the previous literature. Building on corporate finance literature, we also include controls for firm-specific domestic market exposure such as domestic sales as percentage of total sales and a dummy variable for foreign strategic partnership.

As an alternative to the empirical model described above, we also report results from an empirical model with lagged effects. We include returns from previous days in order to consider impact of extreme reaction on previous days by the stock market and estimate whether the impact of the political shock have spillover effects to following days (Tuesday and Wednesday).

A. Failed Coup Attempt as a Political Shock

In our analysis, we interpret the failed coup attempt as an exogenous political shock. We make three assumptions that are integral to our interpretation: 1) The failed coup attempt was completely

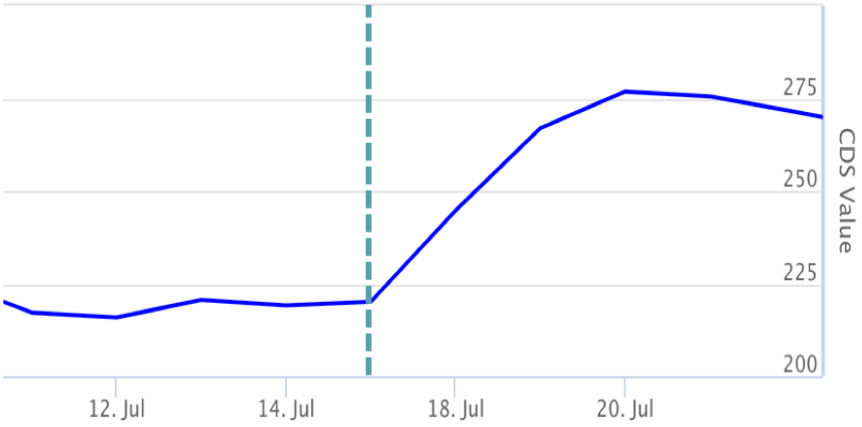
[18] "Turkey: 32,000 jailed for links to group 'behind' coup". Al Jazeera. 28 September 2016.
[19] "Prof. Dr. Henri Barkey: Nobody in Wash,DC believes that Gulen is terrorist". Aktifhaber.com. 10 March 2016.

unexpected, 2) Every firm in our sample was exposed to this political shock, and 3) Firms in our sample were not able to make fundamental changes in their operations or finances as a response to the political shock.

- **Assumption 1:** *The coup attempt was completely unexpected.*

This assumption is essential to our interpretation because the assumption enables us to claim that none of the firms were able to pre-emptively prepare for the political shock. Moreover, the effect of the political shock was not incorporated into investors' expectations; therefore, stock valuations prior to the failed coup attempt did not include the possibility of a political shock of a such magnitude. Thus, we can claim that the returns on Monday, July 18 reflects the entire market reaction to the given political shock.

Figure 5: *CDS Value for Turkish 5-year Treasuries*



In Figure 5, CDS value increased by 11.2% over the weekend after the failed coup attempt on Friday, indicating an equivalent increase in the implied probability of default by Turkish Government. This increase can be seen as an increase in Turkey's political risk. Firstly, we can confirm our initial claim that the failed coup attempt indeed introduced political risk to Turkish market. Secondly, the flat CDS curve prior to the coup attempt also confirms that the coup attempt was not expected by the stock market participants. Otherwise, we would expect an increasing trend in the CDS value prior to the coup attempt.

- **Assumption 2:** *Every firm in our sample received the given political shock as a treatment.*

In Figure 3, we can see that every single firm in our sample experienced negative returns (except only one firm) post failed coup attempt. This confirms our assumption that every single firm negatively affected by the given political shock. In addition, it is reasonable to assume that the firms were not able to avoid the increasing country risk since all of them have production productions facilities in Turkey and positive domestic sales percentages. Also, all of them are traded in the Turkish Stock Exchange, and subjected to Turkish tax and other government policies.

- **Assumption 3:** *Ceteris paribus condition is satisfied because firms were not able to respond to the political shock over the given time period.*

The failed coup attempt happened after the markets was closed on Friday and our methodology measures the investor reaction on Monday. We assume that the firms were not able adjust their operational characteristics or their financial positions in order to respond to the increased political risk. With this assumption, we can claim that we do not need to control for firms' actions over the weekend. The only changing factor in a firm's valuation was its exposure to the political risk.

Table 2: Regression Results for Post Failed Coup Attempt

	Dependent variable:	
	Mday_CL_RET	
	Simple	Robust
	(1)	(2)
Government Supporter	−1.285	−1.285*
	(0.804)	(0.702)
Pro-Fetullah	−5.764***	−5.764***
	(1.247)	(1.153)
Perct Domestic Sales	0.011	0.011
	(0.016)	(0.011)
Market Capitalization	0.00000	0.00000
	(0.00000)	(0.00000)
Perct Debt	−0.016	−0.016
	(0.014)	(0.013)
Price Volatility	−0.095	−0.095
	(0.062)	(0.062)
Strategic Foreign Partnership	−0.307	−0.307
	(0.910)	(0.977)
Industry: Consumer	−0.150	−0.150
	(1.588)	(1.355)
Industry: Consumer Services	−2.092	−2.092
	(1.615)	(1.483)
Industry: Financials	−0.443	−0.443
	(1.585)	(1.360)
Industry: Healthcare	−3.342	−3.342**
	(2.332)	(1.369)
Industry: Holding	−0.013	−0.013
	(1.765)	(1.850)
Industry: Industrials	−0.973	−0.973
	(1.475)	(1.233)
Industry: Materials	−1.115	−1.115
	(1.544)	(1.454)
Industry: Oil and Gas	−4.461**	−4.461***
	(2.131)	(1.285)
Industry: Tech	2.205	2.205**
	(2.116)	(1.096)
Industry: Telecom	1.825	1.825
	(2.857)	(1.303)
Industry: Utilities	−1.802	−1.802
	(2.195)	(1.586)
Intercept	−3.926	−3.926
	(2.647)	(2.476)
Observations	110	110
R^2	0.391	0.391
Adjusted R^2	0.270	0.270
Residual Std. Error (df = 91)	3.345	3.345
F Statistic (df = 18; 91)	3.244***	3.244***
Note:	*p<0.1; **p<0.05; ***p<0.01	

B. Post Failed Coup Results

Markets closed on Friday with no knowledge of the coup attempt. After the coup attempt Friday night, markets were closed until Monday morning like any regular weekend, therefore the reaction to the coup attempt was observed on Monday after the reopening of the Istanbul stock exchange. From the market closing of Friday to the market closing of Monday, the average return in our sample is largely negative (-8.39%). Table 2 analyzes the impact of the failed coup attempt by the end of Monday trading on the Istanbul stock exchange. Column 1 shows our results for our regression done as a simple OLS regression, while Column 2 shows our results for the regression done with robust standard errors.

In Table 2 Column 1, we see a negative and marginally significant effect on pro-Fethullah firms (−5.764, s.e. = 1.247) at the 1% level and an a smaller, yet still negative and marginally significant effect on government affiliated firms (−1.285, s.e. = 0.804) at the 10% level. In Column 2, we see these same effects, however now the negative effect on government affiliated firms ((−1.285, s.e. = 0.702) are marginally significant at the 5% level.

These results suggest a sizeable decline in the valuation of pro-Fethullah firms relative to non-affiliated firms. We believe the most plausible explanation to this is that the coup's failure and government staying in power led the market believe that the government would retaliate against these companies and those associated with them, driving market participants to get rid of pro-Fethullah firms in their portfolios and thus decreasing the values of these firms.

Our findings also suggest a smaller, but nontrivial decrease in the valuation of politically connected firms, relative to politically unaffiliated firms. The coup attempt might have been seen by the stock market participants as a significant challenge to the political status quo and an introduction of increased political uncertainty for the government. Politically connected firms' heavy reliance on the sustainability of the political status quo may have driven market participants away from these firms, leading to a fall in their valuation. This could be evidence that politically connected firms were enjoying a valuation premium due their political connections.

C. Declaration of the State of Emergency as a Policy Shock

The second event we study is the declaration of state of emergency, which occurred late at night on July 20, 2016. We examine the market reaction on the next day (Thursday July 21, 2016) as a response to this event. The differentiating factor between the initial event, the failed coup attempt, and the second event, the declaration of state of emergency, is the nature of the shock. While we classify the first event as an exogenous political shock in which Turkey suffered political uncertainty and chaos, we treat the second event as a policy shock. Even though this new policy decreased political uncertainty by further restoring the government's power, it was still perceived as a negative political outcome for the Turkish market. This was primarily because the new policy could be seen as a further deviation from business-friendly policies to a more authoritarian rule with a decreased focus on economic stimulation and standards of the rule of law.

D. Post Declaration of State of Emergency Results

The reaction to the declaration of the state of emergency is not as severe as the coup attempt, yet is still relatively large (-4.43%). Table 3 analyzes the impact of the declaration of the state of emergency on stock returns between Wednesday close and Thursday close of the Istanbul stock market. As in Table 2, Column 1 shows our results with a simple OLS regression, while Column 2 shows our results with robust standard errors.

In both Column 1 and Column 2, we see a nontrivial, negative and marginally significant effect on government affiliated firms (−0.989, s.e.= 0.483, r.s.e. = 0.470) at the 5% level. Unlike our analysis of the immediate impact of the coup attempt, we see that a firm's percentage of domestic sales (−0.027, s.e.

Table 3: Regression Results for Post Declaration of State of Emergency

	Dependent variable:	
	OHAL_ret	
	Simple	Robust
	(1)	(2)
Government Supporter	-0.989^{**}	-0.989^{**}
	(0.483)	(0.470)
Pro-Fetullah	0.383	0.383
	(0.749)	(0.614)
Perct Domestic Sales	-0.027^{***}	-0.027^{***}
	(0.010)	(0.007)
Market Capitalization	-0.00000	-0.00000
	(0.00000)	(0.00000)
Perct Debt	-0.002	-0.002
	(0.009)	(0.009)
Price Volatility	-0.146^{***}	-0.146^{***}
	(0.037)	(0.031)
Strategic Foreign Partnership	0.081	0.081
	(0.547)	(0.536)
Industry: Consumer	0.242	0.242
	(0.955)	(0.848)
Industry: Consumer Services	0.146	0.146
	(0.970)	(0.884)
Industry: Financials	-0.058	-0.058
	(0.953)	(0.874)
Industry: Healthcare	0.359	0.359
	(1.402)	(0.882)
Industry: Holding	-0.647	-0.647
	(1.061)	(0.990)
Industry: Industrials	-0.282	-0.282
	(0.887)	(0.880)
Industry: Materials	-0.049	-0.049
	(0.928)	(0.815)
Industry: Oil and Gas	-0.172	-0.172
	(1.281)	(1.098)
Industry: Tech	0.142	0.142
	(1.272)	(1.104)
Industry: Telecom	0.922	0.922
	(1.717)	(1.006)
Industry: Utilities	0.829	0.829
	(1.319)	(1.232)
Intercept	2.767^{*}	2.767^{**}
	(1.591)	(1.390)
Observations	110	110
R^2	0.284	0.284
Adjusted R^2	0.142	0.142
Residual Std. Error (df = 91)	2.011	2.011
F Statistic (df = 18; 91)	2.004^{**}	2.004^{**}
Note:	*p<0.1; **p<0.05; ***p<0.01	

= 0.010, r.s.e = 0.007) and its price volatility (−0.146, s.e. = 0.037, r.s.e. = 0.031) in the last year have a nontrivial negative and marginally significant effect on returns at the 1% level.

These results suggest a sizeable decline in the valuation of politically connected firms relative to non-affiliated firms. An explanation for this might be that the declaration of the state of emergency increased stock market participants' expectations of a decrease in the standard of the rule law and was viewed as an explicit change in government economic policy. Stock market participants may have expected this policy change to impact politically connected firms the most, therefore leading to a more significant decrease in the valuation of these firms. This could be further evidence that politically connected firms were enjoying a valuation premium due their political connections.

The significance of price volatility and domestic sales as a percentage of total sales can be explained by the fact that the declaration of the state of emergency might have been perceived by market participants as a policy change that deteriorated the domestic business environment; therefore, a firm's reliance on the domestic business environment and a firm's past performance may be perceived as important determinants of how a firm will fare in this new environment.

In an unexpected result, we see that pro-*Fethullah* firms do not experience significant or negative returns (0.383, s.e.= 0.749, r.s.e.=0.614). A possible interpretation for this may be that pro-*Fethullah* firms had already suffered such a large magnitude of losses that additional negative developments do not affect its stock performance. Yet, the evidence behind this interpretation is not very strong, which led us to investigate this period of political turmoil as a whole by introducing lagged effects.

E. Investigating Lagged Effects

In this setting, we run the same regressions as we did in our investigations of single day reactions, but now include returns from previous days. The results of these regressions are presented in Table 4 as a simple OLS regression and in Table 5 with robust standard errors. Both tables follow the same structure; Column 1 shows the results on returns from Friday closing to Monday closing where we include lagged returns from the previous trading day (Thursday closing to Friday closing), Column 2 shows the results on returns from Monday closing to Tuesday closing where we include lagged returns from Monday, Column 3 shows the results on returns from Tuesday closing to Wednesday closing, where we include lagged returns from the two previous trading days of the week and Column 4 shows the results on returns from Wednesday closing to Thursday closing (post declaration of state of emergency) where we include lagged from the three previous trading days of the week.

Like our results in part A, we observe negative and marginally significant on pro-Fethullah firms and government affiliated firms on Monday. Additionally, lagged effects from Friday have no statistically significant effect on Monday returns. We see that political affiliations of any kind have no significant impact on Tuesday returns, the day after the initial market reaction to the failed coup attempt. This may mean that there were no statistically significant spillover effects from this initial reaction since political affiliations were not a factor in determining stock returns. This has two fundamental consequences: firstly, we can now say that market reaction to the failed coup plot is largely absorbed on Monday and secondly, we can treat the declaration of the state of emergency as its own distinct policy shock. Furthermore, we find that a firm's financial characters become significant factors of stock returns on Tuesday, strengthening our interpretation that market reaction to the failed coup was largely absorbed on Monday and the trading on Tuesday can be considered like a normal trading day.

For our results on the regressions concerning Wednesday return, we observe negative and marginally significant effect on pro-Fethullah firms and that the lagged effect of Monday returns has a positive and statistically significant effect. A possible scenario may be that rumors about the declaration of the state of emergency were being reported on Wednesday; market participants may have preemptively sold stocks from pro-Fethullah firms anticipating the effects of another retaliation towards these firms. This

Table 4: Lagged Regression Results with simple OLS

	Dependent variable:			
	M_Ret Monday	T_ret Tuesday	W_ret Wednesday	Th_ret Thursday
	(1)	(2)	(3)	(4)
Government Supporter	-1.702^{**}	-0.035	0.139	-0.877^{*}
	(0.832)	(0.623)	(0.518)	(0.498)
Pro-Fetullah	-5.144^{***}	-0.418	1.573^{*}	0.579
	(1.284)	(1.021)	(0.850)	(0.831)
Perct Domestic Sales	0.002	-0.008	-0.006	-0.027^{***}
	(0.016)	(0.012)	(0.010)	(0.010)
Market Capitalization	0.00000	-0.00000^{**}	-0.000	-0.00000
	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Perct Debt	-0.002	0.022^{**}	-0.015	0.00000
	(0.015)	(0.011)	(0.009)	(0.009)
Price Volatility	-0.119^{*}	-0.088^{*}	-0.076^{*}	-0.130^{***}
	(0.064)	(0.048)	(0.040)	(0.039)
Strategic Foreign Partnership	-0.201	0.890	-0.450	0.131
	(0.956)	(0.689)	(0.578)	(0.556)
Industry: Consumer	-0.568	0.672	0.356	0.250
	(1.634)	(1.202)	(1.002)	(0.962)
Industry: Consumer Services	-2.473	0.750	1.265	0.178
	(1.676)	(1.234)	(1.028)	(0.994)
Industry: Financials	-2.375	-0.414	1.101	-0.003
	(1.630)	(1.213)	(1.009)	(0.975)
Industry: Healthcare	-3.557	-0.059	1.685	0.436
	(2.398)	(1.785)	(1.484)	(1.434)
Industry: Holding	-1.277	0.675	0.644	-0.620
	(1.815)	(1.339)	(1.115)	(1.071)
Industry: Industrials	-1.208	0.502	0.378	-0.243
	(1.523)	(1.119)	(0.931)	(0.894)
Industry: Materials	-1.351	1.216	0.665	-0.013
	(1.590)	(1.173)	(0.981)	(0.944)
Industry: Oil and Gas	-0.336	-0.655	0.385	-0.181
	(2.195)	(1.612)	(1.342)	(1.288)
Industry: Tech	1.867	0.832	0.472	-0.033
	(2.176)	(1.607)	(1.338)	(1.284)
Industry: Telecom	0.856	-0.433	-0.043	0.870
	(2.940)	(2.162)	(1.798)	(1.725)
Industry: Utilities	-2.197	-1.415	1.957	0.804
	(2.288)	(1.672)	(1.396)	(1.354)
Friday Return	0.245			
	(0.258)			
Monday Return		0.088	0.173^{***}	0.053
		(0.077)	(0.065)	(0.064)
Tuesday Return			-0.024	-0.001
			(0.088)	(0.084)
Wednesday Return				0.102
				(0.102)
Constant	-2.612	3.070	2.085	2.743^{*}
	(2.725)	(2.012)	(1.694)	(1.639)
Observations	110	110	110	110
R^2	0.359	0.229	0.182	0.302
Adjusted R^2	0.224	0.066	-0.001	0.136
Residual Std. Error	3.441 (df = 90)	2.531 (df = 90)	2.104 (df = 89)	2.019 (df = 88)
F Statistic	2.656^{***} (df = 19; 90)	1.409 (df = 19; 90)	0.993 (df = 20; 89)	1.814^{**} (df = 21; 88)
Note:				*p<0.1; **p<0.05; ***p<0.01

Table 5: Lagged Regression Results with Robust Standard Errorrs

	Dependent variable:			
	M_Ret Monday	T_ret Tuesday	W_ret Wednesday	Th_ret Thursday
	(1)	(2)	(3)	(4)
Government Supporter	-1.702^{**}	-0.035	0.139	-0.877^{*}
	(0.698)	(0.529)	(0.446)	(0.483)
Pro-Fetullah	-5.144^{***}	-0.418	1.573^{*}	0.579
	(1.202)	(1.070)	(0.923)	(0.676)
Perct Domestic Sales	0.002	-0.008	-0.006	-0.027^{***}
	(0.013)	(0.010)	(0.009)	(0.007)
Market Capitalization	0.00000	-0.00000^{***}	-0.000	-0.00000
	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Perct Debt	-0.002	0.022^{**}	-0.015^{**}	0.00000
	(0.012)	(0.008)	(0.007)	(0.009)
Price Volatility	-0.119^{**}	-0.088^{*}	-0.076^{*}	-0.130^{***}
	(0.061)	(0.048)	(0.039)	(0.033)
Strategic Foreign Partnership	-0.201	0.890^{*}	-0.450	0.131
	(1.040)	(0.519)	(0.548)	(0.573)
Industry: Consumer	-0.568	0.672	0.356	0.250
	(1.350)	(0.819)	(1.110)	(0.823)
Industry: Consumer Services	-2.473	0.750	1.265	0.178
	(1.527)	(0.918)	(1.140)	(0.891)
Industry: Financials	-2.375^{*}	-0.414	1.101	-0.003
	(1.215)	(0.934)	(0.914)	(0.888)
Industry: Healthcare	-3.557^{**}	-0.059	1.685^{*}	0.436
	(1.418)	(0.799)	(0.873)	(0.877)
Industry: Holding	-1.277	0.675	0.644	-0.620
	(1.743)	(1.090)	(0.915)	(1.006)
Industry: Industrials	-1.208	0.502	0.378	-0.243
	(1.212)	(0.867)	(0.865)	(0.872)
Industry: Materials	-1.351	1.216	0.665	-0.013
	(1.344)	(1.118)	(0.844)	(0.833)
Industry: Oil and Gas	-0.336	-0.655	0.385	-0.181
	(2.551)	(2.291)	(1.067)	(0.987)
Industry: Tech	1.867	0.832	0.472	-0.033
	(1.170)	(1.728)	(1.169)	(1.096)
Industry: Telecom	0.856	-0.433	-0.043	0.870
	(1.257)	(0.919)	(1.037)	(1.011)
Industry: Utilities	-2.197	-1.415	1.957^{*}	0.804
	(1.599)	(1.172)	(1.085)	(1.211)
Friday Return	0.245			
	(0.310)			
Monday Return		0.088	0.173^{***}	0.053
		(0.094)	(0.058)	(0.052)
Tuesday Return			-0.024	-0.001
			(0.097)	(0.062)
Wednesday Return				0.102
				(0.077)
Constant	-2.612	3.070	2.085	2.743^{**}
	(2.506)	(2.048)	(1.549)	(1.336)
Observations	110	110	110	110
R^2	0.359	0.229	0.182	0.302
Adjusted R^2	0.224	0.066	-0.001	0.136
Residual Std. Error	3.441 (df = 90)	2.531 (df = 90)	2.104 (df = 89)	2.019 (df = 88)
F Statistic	2.656^{***} (df = 19; 90)	1.409 (df = 19; 90)	0.993 (df = 20; 89)	1.814^{**} (df = 21; 88)

Note: *p<0.1; **p<0.05; ***p<0.01

could explain our results in Part B where we observe no statistically significant nor any negative impact on pro-Fetullah firms after the declaration of the state of emergency since the impact of the policy shock may have been absorbed on Wednesday.

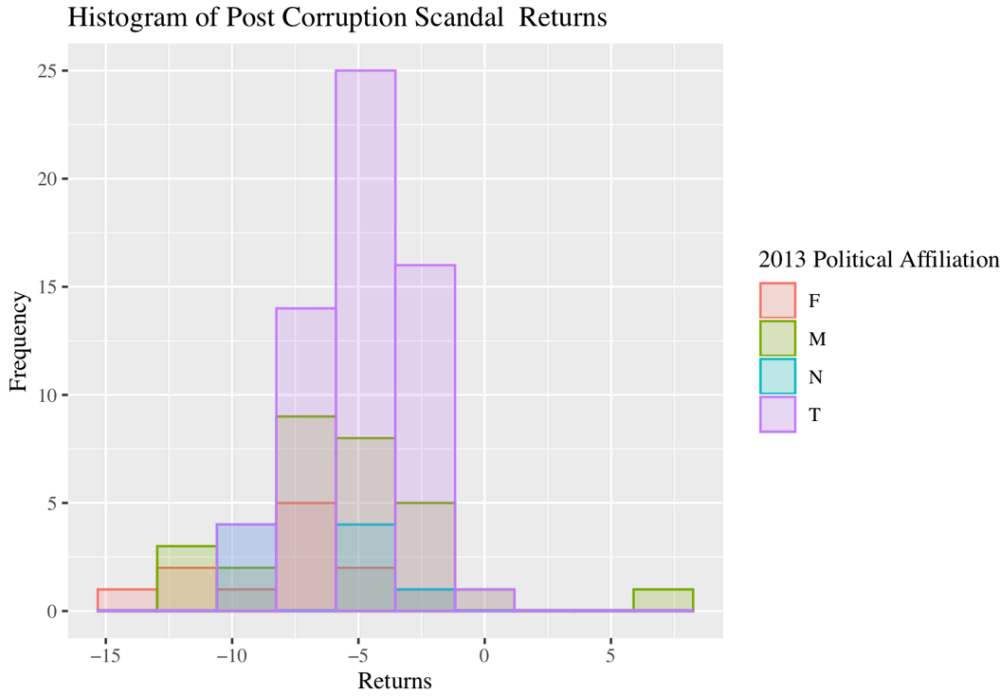
The results we observe on Thursday returns are in line with our results in Part B, even though we control for lagged effects by introducing returns from the previous trading days. Ultimately the results from our investigation into a possible lagged effect showed that are results from Part A and B were robust and gave further evidence that politically connected firms might enjoy a valuation premium due to their political affiliations.

IV. Persistence of Political Affiliations

A. Historical Persistence

There is a question of whether the effects of the political affiliations to firms can only be observed in the context of the failed coup attempt of 2016. To show that these political affiliations did in fact exist before the failed coup attempt and had an affect on firms' stock returns we can look at other unanticipated political shocks in the Turkish political setting. A fitting example of such an event is the corruption allegations against prime minister Erdoğan's cabinet and his family on December 17, 2013 that ultimately lead to the escalation of conflict between Erdoğan and the *Gülenist* movement. From figure 6 we can observe the same pattern of negative returns across the different political affiliations and most negative returns for Pro-Fetullah and government affiliated firms. Both of these are promising signs for the historical persistence of political affiliations.

Figure 6:



We run the same regression outlined in section III on the same set of firms, except calculating returns as the change in price between December 16 and December 17 of 2013. There is a slight difference in political affiliation of firms, specifically the number of pro-Fetullah firms increase because military-owned firms are affiliated with the *Gülenist* movement due to the fact that the military apparatus was still predominantly controlled by the *Gülenist* movement.

Table 1: Regression Results for Post Corruption Scandal

	Dependent variable:	
	Dec_17_RET	
	Simple	Robust
	(1)	(2)
Government Supporter	−0.595	−0.595
	(0.666)	(0.784)
Pro-Fetullah	−1.759	−1.759**
	(1.087)	(0.806)
Perct Domestic Sales	0.0001	0.0001
	(0.013)	(0.009)
Market Capitalization	0.00000	0.00000
	(0.00000)	(0.00000)
Perct Debt	−0.003	−0.003
	(0.013)	(0.013)
Price Volatility	−0.134**	−0.134***
	(0.051)	(0.050)
Strategic Foreign Partnership	−0.135	−0.135
	(0.773)	(0.478)
Industry: Consumer	1.451	1.451*
	(1.355)	(0.867)
Industry: Consumer Services	0.126	0.126
	(1.364)	(0.886)
Industry: Financials	−0.815	−0.815
	(1.405)	(1.474)
Industry: Healthcare	0.636	0.636
	(1.978)	(0.983)
Industry: Holding	−0.759	−0.759
	(1.532)	(1.050)
Industry: Industrials	−0.897	−0.897
	(1.244)	(0.744)
Industry: Materials	1.210	1.210
	(1.305)	(1.425)
Industry: Oil and Gas	−0.885	−0.885
	(1.786)	(1.029)
Industry: Tech	1.873	1.873**
	(1.794)	(0.825)
Industry: Telecom	−0.615	−0.615
	(2.539)	(1.322)
Industry: Utilities	0.126	0.126
	(1.868)	(0.956)
Intercept	−1.195	−1.195
	(2.156)	(1.941)
Observations	110	110
R^2	0.264	0.264
Adjusted R^2	0.118	0.118
Residual Std. Error (df = 91)	2.830	2.830
F Statistic (df = 18; 91)	1.810**	1.810**
Note:	*p<0.1; **p<0.05; ***p<0.01	

The reaction to the corruption scandal (-5.59%) was not as strong as the failed coup attempt, but was stronger than the announcement of the state of emergency. Table 6 analyzes the impact of the beginning of the corruption investigation into Erdoğan's government on stock returns between December 16th close and December 17th close of the Istanbul stock market. As in Table 1 and 2, Column 1 shows our results with a simple OLS regression, while Column 2 shows our results with robust standard errors.

The only significant impact of a political affiliation can be seen in Column 2 as a negative effect on Pro-Fetullah firms (−1.759, r.s.e. = 0.806) at the 10% level. Similar to our results in the declaration of the state of emergency we see that price volatility (−0.134, s.e. = 0.051, r.s.e. = 0.050) also has a significant and negative effect on firms. While these results may not be as statistically significant as previous settings, the additional negative impact on both Pro-Fetullah and government affiliated firms can be observed even 3 years before the failed coup attempt occurred. This can be seen as evidence that the political affiliations and there affects that we were able to identify in Part III are valid not only in their specific context, but throughout time. Specifically, it is evidence that the valuation premium enjoyed by firms due to their political affiliations in Turkey had been present for a significant time period.

Another setting in which we can investigate whether the effects of the political affiliations to firms can be observed is the Gezi Park Protests roughly 6 months prior to the corruption investigation into the AKP government. The Gezi Park Protests were protests that initially started out as an environmentalist protests against government plans to build a mall in Gezi Park, a park in the center of Istanbul's main square, Taksim; however, they snowballed into a series of national protests against social freedoms, human rights, environmentalism and cronyism that was "unparalleled in terms of the numbers of people"[20] that joined throughout its two month duration.

The initial, solely anti-mall protests began on May 28th, but became a national phenomenon in the evening of May 31st, a Friday, when the markets were already closed. This allows us to run the same regression outlined in section III on the same set of firms, except calculating returns as the change in price between May 31 and June 3 of 2013. The results of the regression are presented in the Table 7 below. The reaction to the escalation of the protests over the protests were very strong and very negative (average of -10.98%), but the only statistically significant negative effect can be observed for price volatility. Interestingly we do not observe negative effects on either Pro-Fetullah or government affiliated firms. This may be because the effect of the protests brought so much uncertainty that investors were swayed towards safe havens, which these companies at the time could be considered as such since Erdogan's perception at the time was as a pro-business and democratic leader rather than a crony and undemocratic leader (in part because the protests and the corruption scandal had not occurred yet). This may also be because after the first 3 days of protests, it was unclear as to whether the protests would get suppressed by the government and then punished or whether the protestors would succeed (which they ultimately did). A more thorough investigation in to investor reactions to the Protests could confirm this hypothesis.

[20] "Gezi park protests: Brutal denial of the right to peaceful assembly in Turkey", Amnesty International. October 2013

Table 1: Regression Results for First Weekend of Gezi Park Protests

	Dependent variable:	
	Gezi_Returns	
	Simple	Robust
	(1)	(2)
Government Supporter	1.300	1.300
	(0.862)	(0.907)
Pro-Fetullah	1.750	1.750
	(1.445)	(1.324)
Perct Domestic Sales	0.022	0.022
	(0.016)	(0.016)
Market Capitalization	0.000	0.000**
	(0.000)	(0.000)
Perct Debt	0.004	0.004
	(0.016)	(0.019)
Price Volatility	−0.238***	−0.238***
	(0.067)	(0.062)
Strategic Foreign Partnership	−0.973	−0.973
	(0.995)	(0.762)
Industry: Consumer	0.531	0.531
	(1.678)	(1.616)
Industry: Consumer Services	0.736	0.736
	(1.734)	(1.625)
Industry: Financials	1.207	1.207
	(1.677)	(1.927)
Industry: Healthcare	3.029	3.029*
	(2.517)	(1.657)
Industry: Holding	1.708	1.708
	(1.892)	(2.480)
Industry: Industrials	0.464	0.464
	(1.546)	(1.584)
Industry: Materials	0.326	0.326
	(1.634)	(1.527)
Industry: Oil and Gas	0.970	0.970
	(2.262)	(1.843)
Industry: Tech	−0.043	−0.043
	(2.588)	(1.941)
Industry: Telecom	3.771	3.771**
	(2.907)	(1.602)
Industry: Utilities	0.156	0.156
	(2.353)	(2.218)
Intercept	−6.537***	−6.537**
	(2.464)	(2.838)
Observations	109	109
R^2	0.213	0.213
Adjusted R^2	0.056	0.056
Residual Std. Error (df = 90)	3.605	3.605
F Statistic (df = 18; 90)	1.357	1.357
Note:	*p<0.1; **p<0.05; ***p<0.01	

B. Investigating Gezi

As mentioned in the section above, the results concerning the Gezi Park Protests are slightly confusing especially given that, at the time, the reaction to the Gezi Park Protests in the stock market over the weekend was the largest single-day loss recorded since the financial crisis for the Bist-100 Index on the Istanbul stock market. The possibility that investors started pricing in a potential political crisis in the form of mass protests and the duration of the Gezi park protests might mean that the singe-day event study framework used so far is insufficient; therefore, we employ the methodology used by Acemoglu et al (2017) to take a longer perspective. Essentially we run the same regression, but instead of focusing on the changes in stock price between two days of financial trading, we look at changes in stock prices from before the protests started to after significant events that took place during the Protests. The timeline of significant events that took place during the Gezi Park Protests are outlined in Özkırımlı (2014) and are presented in figure 7. Tables 8, 9 and 10 present the regression results corresponding to those events, respectively.

From the results it is clear that political connections do have a statistically significant and increasing impact as the protests continue for government affiliated firms, which eventually wanes and looses its statistical significance. This can be interpreted as investors slowly coming to grasps how long the protests might last and the effectiveness of the protests. It may also be that investors had first written the Gezi Park protests off as a small group of environmentalist activists that made the news, but reacted much more severely as the protests became a much larger social movement. Looking at the context of the events selected, the increasing magnitude of the effect on government affiliated firms lines up with President Erdoğan's return to Turkey and the government's escalation of violence relative to the protestors. Similarly, the effect on government affiliated firms looses its statistical significance as it becomes clearer that the Gezi Park Protests will not lead to a regime change.

An interesting result is the extremely high magnitude and statistical significance (at the 1% level) of the effect on Pro-Fethullah firms during the initial significant events of the Gezi Park Protests. This is a clear sign that investors viewed Pro-Fethullah firms as a third unrelated party to the unrest and struggle for political power caused by the protests. As perceptions of the Gezi Park Protests change from a potential attempt at regime change to a social movement and as the government takes further control of the situation, not only does the magnitude of the effect on Pro-Fethullah firms decrease, but also looses statistically significance.

At the root of both interpretations lies the uncertainty created by the protests and investors eventual realization that the uncertainty is not significant anymore. These interpretations are further strengthened when we change the initial start date from the 27th of May to the 31st of May. The tables showing those regression results can be found in the Appendix.

Figure 7: GEZI TIMELINE

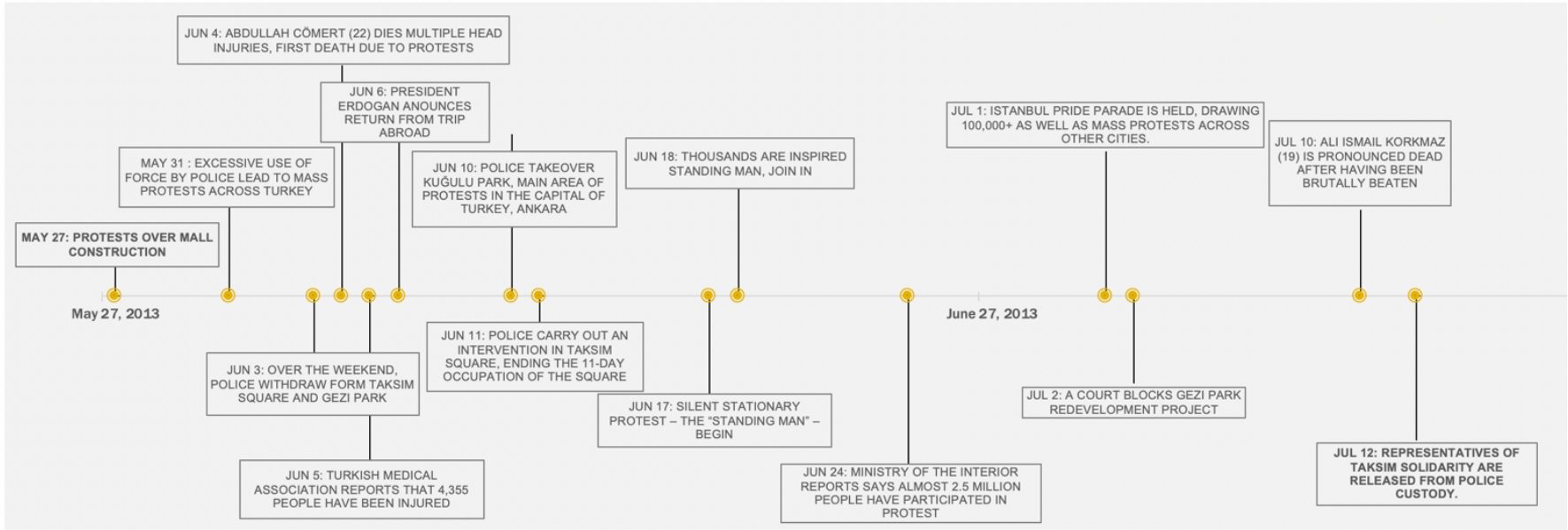


Table 1: Regression Results for Important Events during Gezi Park Protests (part 1)

	Dependent variable:									
	June 3 Returns		June 4 Returns		June 5 Returns		June 6 Returns		June 10 Returns	
	Simple	Robust	Simple	Robust	Simple	Robust	Simple	Robust	Simple	Robust
Government Supporter	2.401*	2.401	2.297*	2.297*	2.839**	2.839*	4.695***	4.695**	4.000**	4.000**
	(1.425)	(1.582)	(1.198)	(1.253)	(1.405)	(1.647)	(1.634)	(2.166)	(1.553)	(1.633)
Pro-Fetullah	7.018***	7.018***	5.788***	5.788**	4.860**	4.860*	4.902*	4.902*	4.854*	4.854*
	(2.389)	(2.479)	(2.009)	(2.545)	(2.355)	(2.694)	(2.740)	(2.792)	(2.604)	(2.813)
Perct Domestic Sales	0.046*	0.046*	0.052**	0.052**	0.054**	0.054**	0.066**	0.066**	0.051*	0.051*
	(0.026)	(0.027)	(0.022)	(0.022)	(0.026)	(0.027)	(0.030)	(0.032)	(0.028)	(0.027)
Market Capitalization	0.000*	0.000***	0.000*	0.000***	0.000*	0.000***	0.000**	0.000***	0.000	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Perct Debt	0.025	0.025	0.007	0.007	−0.002	−0.002	−0.020	−0.020	0.001	0.001
	(0.026)	(0.026)	(0.022)	(0.021)	(0.026)	(0.027)	(0.030)	(0.036)	(0.029)	(0.028)
Price Volatility	−0.482***	−0.482***	−0.372***	−0.372***	−0.360***	−0.360***	−0.341***	−0.341***	−0.317***	−0.317***
	(0.110)	(0.099)	(0.093)	(0.088)	(0.109)	(0.094)	(0.127)	(0.115)	(0.120)	(0.112)
Strategic Foreign Partnership	0.606	0.606	1.103	1.103	1.722	1.722*	2.084	2.084*	1.594	1.594
	(1.645)	(1.161)	(1.383)	(0.972)	(1.622)	(0.993)	(1.886)	(1.149)	(1.793)	(1.251)
Intercept	−6.889*	−6.889*	−4.019	−4.019	−4.644	−4.644	−10.004**	−10.004**	−8.361*	−8.361**
	(4.073)	(3.768)	(3.425)	(2.919)	(4.016)	(3.413)	(4.672)	(4.449)	(4.440)	(3.871)
Industry dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	109	109	109	109	109	109	109	109	109	109
R^2	0.240	0.240	0.250	0.250	0.254	0.254	0.269	0.269	0.251	0.251
Adjusted R^2	0.088	0.088	0.099	0.099	0.104	0.104	0.123	0.123	0.101	0.101
Residual Std. Error (df = 90)	5.958	5.958	5.011	5.011	5.876	5.876	6.834	6.834	6.495	6.495
F Statistic (df = 18; 90)	1.580*	1.580*	1.663*	1.663*	1.700*	1.700*	1.838**	1.838**	1.672*	1.672*

Note: *p<0.1; **p<0.05; ***p<0.01

Table 2: Regression Results for Important Events during Gezi Park Protests (part 2)

	Dependent variable:									
	June 11 Returns		June 17 Returns		June 18 Returns		June 24 Returns		July 1 Returns	
	Simple	Robust	Simple	Robust	Simple	Robust	Simple	Robust	Simple	Robust
Government Supporter	3.906***	3.906***	4.607***	4.607***	4.755***	4.755***	3.837*	3.837*	3.250	3.250
	(1.481)	(1.388)	(1.555)	(1.477)	(1.599)	(1.519)	(2.204)	(1.986)	(2.382)	(2.055)
Pro-Fetullah	4.391*	4.391	3.921	3.921	3.607	3.607	2.929	2.929	3.733	3.733
	(2.483)	(2.804)	(2.607)	(3.176)	(2.680)	(2.994)	(3.695)	(3.772)	(3.995)	(5.021)
Perct Domestic Sales	0.039	0.039	0.025	0.025	0.016	0.016	0.042	0.042	0.017	0.017
	(0.027)	(0.025)	(0.028)	(0.027)	(0.029)	(0.027)	(0.040)	(0.034)	(0.044)	(0.038)
Market Capitalization	0.000	0.000***	0.000	0.000*	0.000	0.000	0.000	0.000**	0.000	0.000*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Perct Debt	0.001	0.001	0.005	0.005	−0.005	−0.005	−0.039	−0.039	−0.029	−0.029
	(0.027)	(0.025)	(0.029)	(0.027)	(0.030)	(0.027)	(0.041)	(0.042)	(0.044)	(0.053)
Price Volatility	−0.288**	−0.288**	−0.248**	−0.248**	−0.215*	−0.215*	−0.346**	−0.346*	−0.339*	−0.339
	(0.115)	(0.112)	(0.120)	(0.121)	(0.124)	(0.122)	(0.171)	(0.178)	(0.184)	(0.226)
Strategic Foreign Partnership	1.828	1.828	2.333	2.333*	2.071	2.071	2.960	2.960*	3.374	3.374*
	(1.709)	(1.254)	(1.795)	(1.369)	(1.846)	(1.408)	(2.545)	(1.788)	(2.751)	(1.927)
Intercept	−8.038*	−8.038**	−4.875	−4.875	−5.547	−5.547	−7.511	−7.511	−0.865	−0.865
	(4.233)	(3.894)	(4.446)	(4.187)	(4.571)	(4.349)	(6.301)	(6.734)	(6.811)	(8.690)
Industry dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	109	109	109	109	109	109	109	109	109	109
R^2	0.275	0.275	0.257	0.257	0.256	0.256	0.215	0.215	0.173	0.173
Adjusted R^2	0.130	0.130	0.108	0.108	0.107	0.107	0.058	0.058	0.007	0.007
Residual Std. Error (df = 90)	6.193	6.193	6.504	6.504	6.686	6.686	9.218	9.218	9.965	9.965
F Statistic (df = 18; 90)	1.898**	1.898**	1.730**	1.730**	1.721**	1.721**	1.371	1.371	1.045	1.045

Note: *p<0.1; **p<0.05; ***p<0.01

Table 3: Regression Results for Important Events during Gezi Park Protests (part 3)

	Dependent variable:					
	July 2 Returns		July 10 Returns		July 12 Returns	
	Simple	Robust	Simple	Robust	Simple	Robust
Government Supporter	3.386	3.386	2.380	2.380	2.688	2.688
	(2.415)	(2.133)	(2.848)	(2.675)	(2.777)	(2.704)
Pro-Fetullah	2.758	2.758	3.437	3.437	4.050	4.050
	(4.050)	(5.051)	(4.774)	(5.355)	(4.657)	(5.174)
Perct Domestic Sales	0.014	0.014	0.027	0.027	0.026	0.026
	(0.044)	(0.038)	(0.052)	(0.046)	(0.051)	(0.044)
Market Capitalization	0.000	0.000	0.000	0.000*	0.000	0.000*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Perct Debt	−0.044	−0.044	−0.085	−0.085	−0.089*	−0.089
	(0.045)	(0.057)	(0.053)	(0.068)	(0.051)	(0.067)
Price Volatility	−0.259	−0.259	−0.342	−0.342	−0.324	−0.324
	(0.187)	(0.239)	(0.221)	(0.265)	(0.215)	(0.263)
Strategic Foreign Partnership	2.617	2.617	1.789	1.789	1.887	1.887
	(2.789)	(1.832)	(3.288)	(2.162)	(3.207)	(2.039)
Intercept	−1.926	−1.926	−5.655	−5.655	−5.219	−5.219
	(6.906)	(8.836)	(8.141)	(9.489)	(7.941)	(9.148)
Industry dummy	Yes	Yes	Yes	Yes	Yes	Yes
Observations	109	109	109	109	109	109
R^2	0.161	0.161	0.166	0.166	0.180	0.180
Adjusted R^2	−0.007	−0.007	−0.001	−0.001	0.016	0.016
Residual Std. Error (df = 90)	10.103	10.103	11.910	11.910	11.617	11.617
F Statistic (df = 18; 90)	0.961	0.961	0.996	0.996	1.098	1.098
Note:					*p<0.1; **p<0.05; ***p<0.01	

i. Social Media

An interesting facet to explore with the Gezi Park Protests is social media. The importance of social media during the Gezi Park Protests have been emphasized both online data[21] and through surveys[22]. Similarly, Acemoglu and Robinson (2000, 2006) have found that protests (and the threat of revolution or uprisings) lead to temporary changes to the distribution of political power which in turn can lead to a change in the behavior of political institutions. Additionally, Collins and Margo (2007) and Chaney (2013) have show empirical evidence that environments which prevent or facilitate protests have a lasting effect on social and economic outcomes, however Acemoglu et al (2017) is the first paper to incorporate street protests as well as its interaction with social media activity. In this respect, our investigation will be in the vein of Acemoglu et al (2017).

Ozturkcan, Kasap, Cevik, & Zaman (2017) use a randomly selected sample of 1% of all tweets posted from Istanbul, Turkey between March-September 2013 and filter these tweets down to 13.8 million tweets based on 7,932 relevant terms between May 26th and July 16th of 2013. Demirel-Pegg (2020) uses reports from local newspapers to create a dataset of the daily number of protests and repression by the government. Using aggregate data from these paper we can conduct a panel regression for changes in stock prices with respect to May 27th for every single day of financial trading until July 15th. Essentially our empirical model is the same, but now there is a time component to each stock return and we add variables for interactions between political affiliation dummies and the daily number of tweets, protests or repression by the government[23]. Since the timeframe is still only a relatively short period of time (~1.5 months), it is still reasonable to assume assumptions 1-3 hold. The results of a simple ordinary least squares regression described above are presented in Table 11 and the results of a fixed-effects model are presented in Table 12.

Table 4: Daily Returns During Gezi: Simple OLS

	Dependent variable:				
	Daily Returns relative to May 27				
Government Supporter	3.264***	3.062***	3.526***	3.186***	3.328***
	(0.357)	(0.423)	(0.447)	(0.356)	(0.450)
Pro-Fetullah	3.307***	2.497***	2.807***	3.199***	2.472***
	(0.599)	(0.698)	(0.734)	(0.597)	(0.739)
Gov-Sup × Protests		0.013	0.068***		0.024
		(0.015)	(0.023)		(0.027)
Pro-Fet × Protests		0.053**	0.090**		0.016
		(0.023)	(0.036)		(0.042)
Gov-Sup × Repression			−0.170***		−0.065
			(0.053)		(0.063)
Pro-Fet × Repression			−0.113		0.063
			(0.084)		(0.099)
Gov-Sup × Tweets				−1.223***	−1.037***
				(0.275)	(0.329)
Pro-Fet × Tweets				−1.702***	−1.750***
				(0.434)	(0.520)
Perct Domestic Sales	0.028***	0.028***	0.028***	0.028***	0.028***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Market Capitalization	0.000***	0.000***	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Perct Debt	−0.027***	−0.027***	−0.027***	−0.027***	−0.027***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Price Volatility	−0.265***	−0.265***	−0.265***	−0.265***	−0.265***
	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)
Strategic Foreign Partnership	2.003***	2.003***	2.003***	2.003***	2.003***
	(0.413)	(0.412)	(0.412)	(0.411)	(0.411)
Intercept	−5.024***	−5.024***	−5.024***	−5.024***	−5.024***
	(1.022)	(1.021)	(1.020)	(1.017)	(1.017)
Industry dummy	Yes	Yes	Yes	Yes	Yes
Observations	3,815	3,815	3,815	3,815	3,815
R^2	0.116	0.117	0.120	0.124	0.125
Adjusted R^2	0.112	0.112	0.115	0.119	0.119
F Statistic	27.609*** (df = 18; 3796)	25.169*** (df = 20; 3794)	23.484*** (df = 22; 3792)	26.827*** (df = 20; 3794)	22.525*** (df = 24; 3790)
Note:					*p<0.1; **p<0.05; ***p<0.01

[21] Onur Varol et al. 2014. Evolution of online user behavior during a social upheaval.
[22] Konda (2014)
[23] These numbers are standardized by subtracting the sample mean and dividing by sample standard error for each variable.

Table 5: Daily Returns During Gezi: Fixed Effects

	Dependent variable:			
	Daily Returns relative to May 27			
Gov-Sup × Protests	0.013	0.068***		0.024
	(0.011)	(0.016)		(0.019)
Pro-Fet × Protests	0.053***	0.090***		0.016
	(0.017)	(0.025)		(0.030)
Gov-Sup × Repression		−0.170***		−0.065
		(0.038)		(0.044)
Pro-Fet × Repression		−0.113*		0.063
		(0.060)		(0.070)
Gov-Sup × Tweets			−1.223***	−1.037***
			(0.194)	(0.232)
Pro-Fet × Tweets			−1.702***	−1.750***
			(0.307)	(0.367)
Observations	3,815	3,815	3,815	3,815
R^2	0.003	0.010	0.019	0.021
Adjusted R^2	−0.026	−0.020	−0.010	−0.009
F Statistic	5.860*** (df = 2; 3704)	8.906*** (df = 4; 3702)	35.273*** (df = 2; 3704)	13.121*** (df = 6; 3700)
Note:				*p<0.1; **p<0.05; ***p<0.01

The results from the OLS panel regression in Table 11 show that the dummy variables for political affiliations are positive and statistically significant regardless of the model specification. This can be viewed as evidence for the interpretation concerning these two affiliations in the previous section that as the uncertainty associated with protests turning into a regime change decreases, firms unaffiliated with the protestors act as "safe havens".

Interestingly we see that just adding an interaction between political affiliations and protests do not make their respective coefficient estimates statistically significant, however when combined with an interaction between political affiliations and repression events their respective coefficient estimates do become statistically significant. Equally interesting is that the coefficient estimates for the interaction between political affiliations and protests are always positive, while the the coefficient estimates for the interaction between political affiliations and repression events are always negative. After the first few days of protests the perception of the became that of a social movement, so an interpretation of these results may be that as repression increases the possibility of the protests become re-oriented towards an attempt at regime change increases, thus creating an increased possibility of losing benefits enjoyed by government affiliated firms and Pro-Fethullah firms, which at this point had yet to split up with the AKP government.

The most interesting result from Table 11 is that the coefficient estimates for the interaction between political affiliations and the daily number of tweets are negative, statistically significant and an order of magnitude larger than any other interaction variable when included. Essentially we see that tweets absorb the effect of protests and repression and translate into a much stronger and negative reaction towards government affiliated and Pro-Fethullah firms. This seems to suggest that twitter and social media activity played a unique role in voicing discontent towards to the government. Contextually, the Gezi Park Protests were the first anti-AKP political event or demonstration that encompassed the majority of society since the AKP took power in 2002. While the protests themselves did not represent a threat to rule of the government, they did represent a negative change in attitude towards the government and the AKP and thus a change in the political status quo. Our results seem to indicate that Twitter and social media were the mediums with which this change in the political status quo was realized as public criticism towards the AKP and the government became more common. Therefore, this highly statistically significant and relatively large negative effect of tweets can be interpreted as investors realizing this change in the political status quo.

The same patterns of evidence for these interpretations are also present in the fixed effects model presented in table 12 and, to a lesser extent in a random effects model on the same panel data set. The tables showing random effects regression results can be found in the appendix.

Unlike Acemoglu et al (2017) our results seem to be evidence that tweets and social media activity do have a statistically significant effect on firm-level stock returns, for both types of political connections. However, the results are not necessarily contradictory because of the context and nature of the events studied. In Egypt, the protests did in fact pose a serious threat to the regime that had power; in fact, the protests did indeed lead to regime change, whereas in Turkey the protestors did not truly pose a serious threat to regime change, especially after the first couple days of protests. Similarly, the events in Egypt take place over a much longer time horizon and the protests were much more sustained, whereas the Gezi Park Protests only lasted a summer. The short duration and the the lack of serious threat by protestors towards the government can be seen as the reason why social media became much more important in Turkey when compared to Egypt.

Ultimately this investigation is clear evidence of the historical persistence of the political connections and their firm-level effects identified during the failed coup attempt and its aftermath.

ii. Tree Regression on Gezi

To illustrate the interaction between protests, repression and tweets, we run a tree regression on the same panel data set. The resulting decision trees are not meant to be interpreted as casual, but to describe how these variables absorb each others effects on firms. In all the tree regression, we set the minimum number of firms necessary for a node to be split at 10% of the dataset to avoid unnecessary splits. Since these regressions are meant to be descriptive, we believe this is a valid approach. Figure 8 shows the tree regression output when we include all the variables in the panel, figure 9-11 show the tree regression output with different combinations of protests, repression and tweets interacted with political connection dummies along with the standard financial and accounting variables.

In all the trees we see that non-financial variables do not lead to decision nodes for low volatility firms. For the full tree regression, we see that the non-financial variables that are decision nodes are those relating to interaction between tweets and political affiliations, and repression events and political affiliations. Both of these indicate that the that mechanisms attributed to repression by the government and daily tweets in the previous section play a significant role. Interestingly, the figures seem to indicate that there are a set of firms characterized by strong financial background that are unaffected by political affiliations, tweets, protests or repression by the government. For figures 9 and 10, we see that there is only one non-financial decision variable node and it is same node in both figures. This may indicate that firms significantly affected by repression by the government and political affiliation are the same firms.

For figure 11, we see multiple non-financial decision variable nodes which is a result that is in line with previous sections interpretation that tweets and social media played a special role in determining stock returns to firms. This can also be seen in figure 8 as there are also multiple decision variable nodes that feature tweets, but only one node with tweets. In figure 8, we can also see that the set of firms which are most negatively affected during the Gezi Part Protests are Tusiad affiliated firms. In this context, these firms can be seen as supporting the protestors. Indeed protestors did hide from police in a hotel owned by a firm affiliated with Tusiad when police stormed Gezi Park on June 11th[24].

[24] "Police Storm Park in Istanbul, Setting Off a Night of Chaos", The New York Times. June 15, 2013

Figure 8:

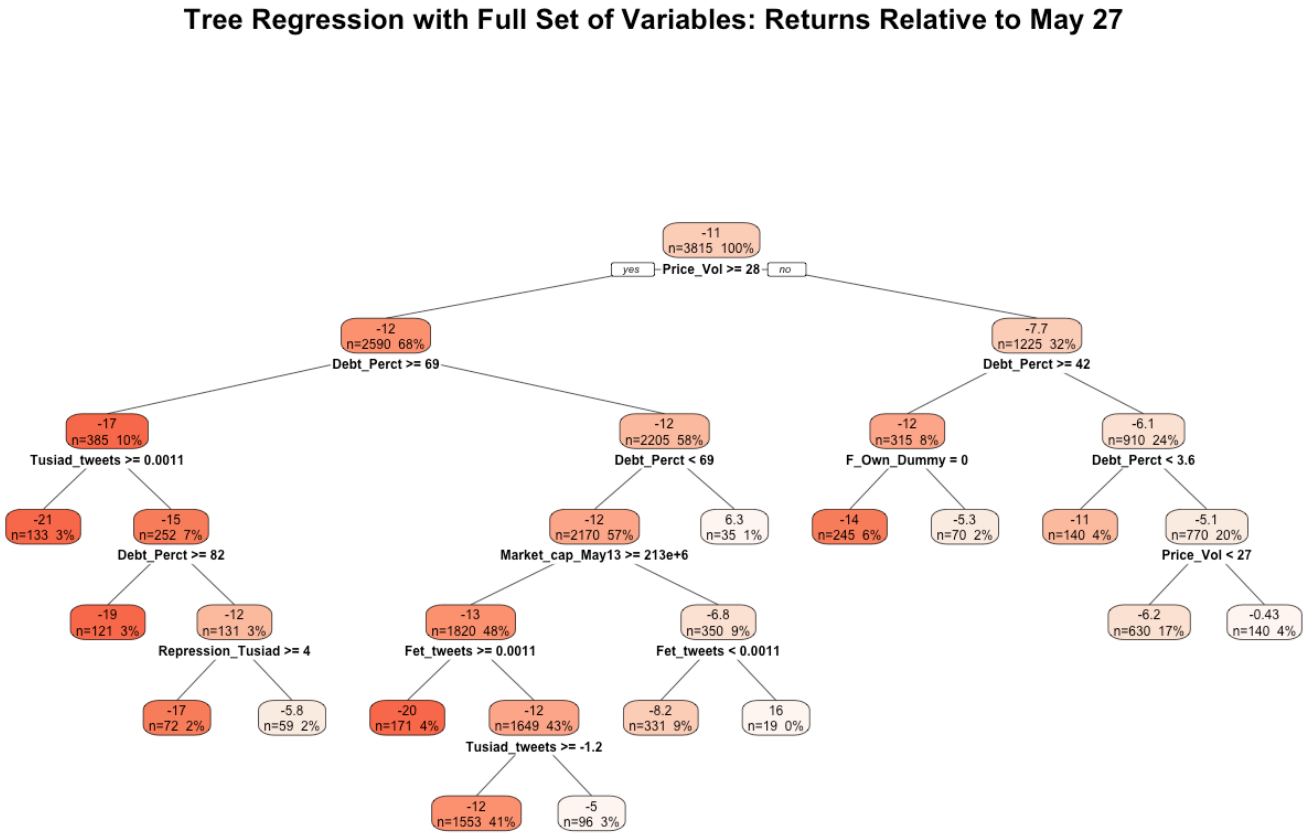


Figure 9:

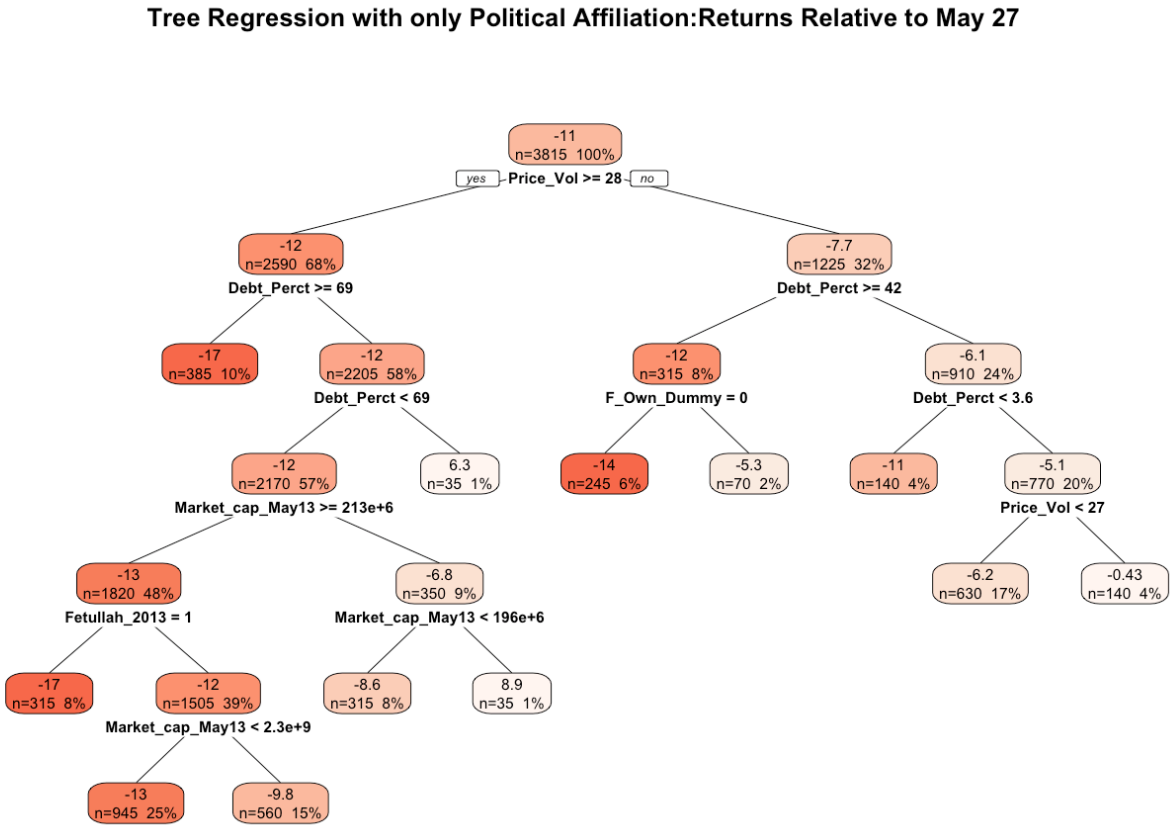


Figure 10:

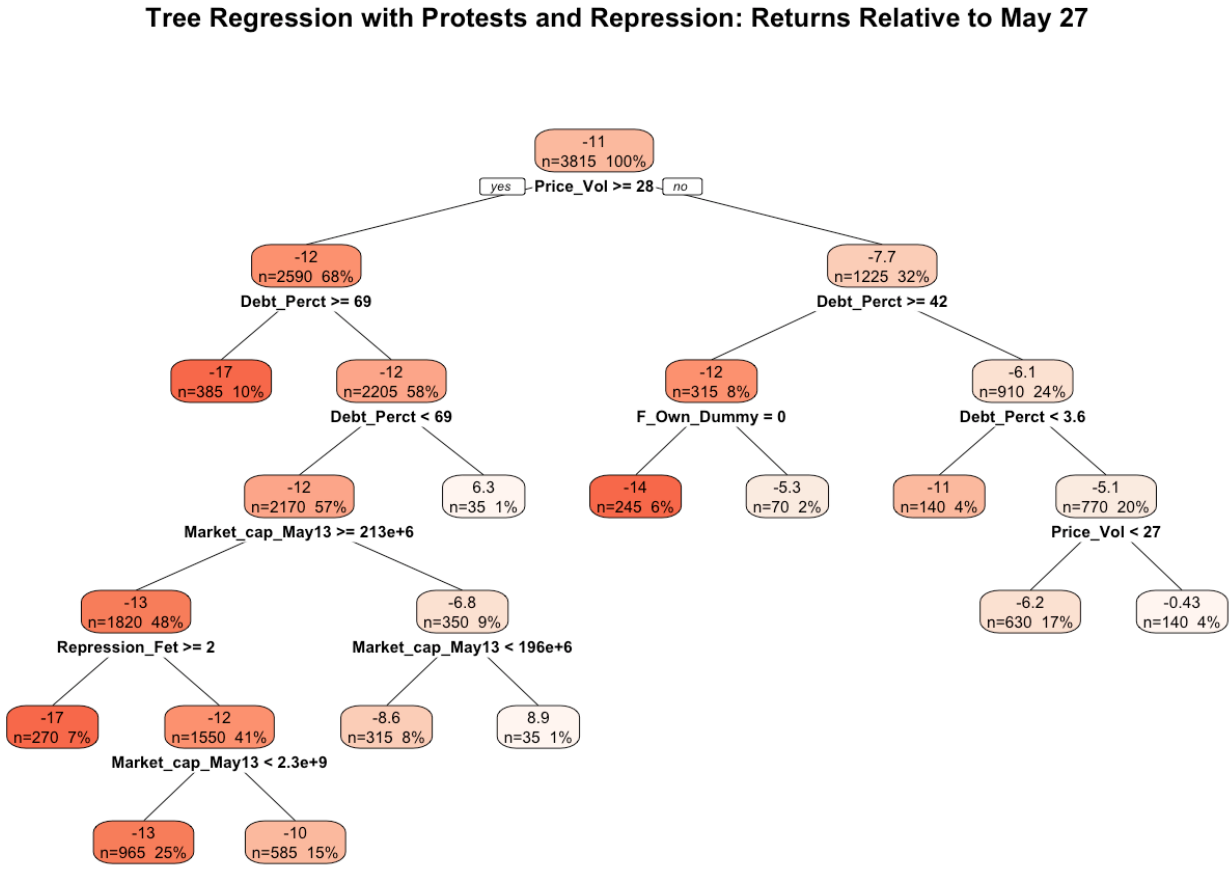
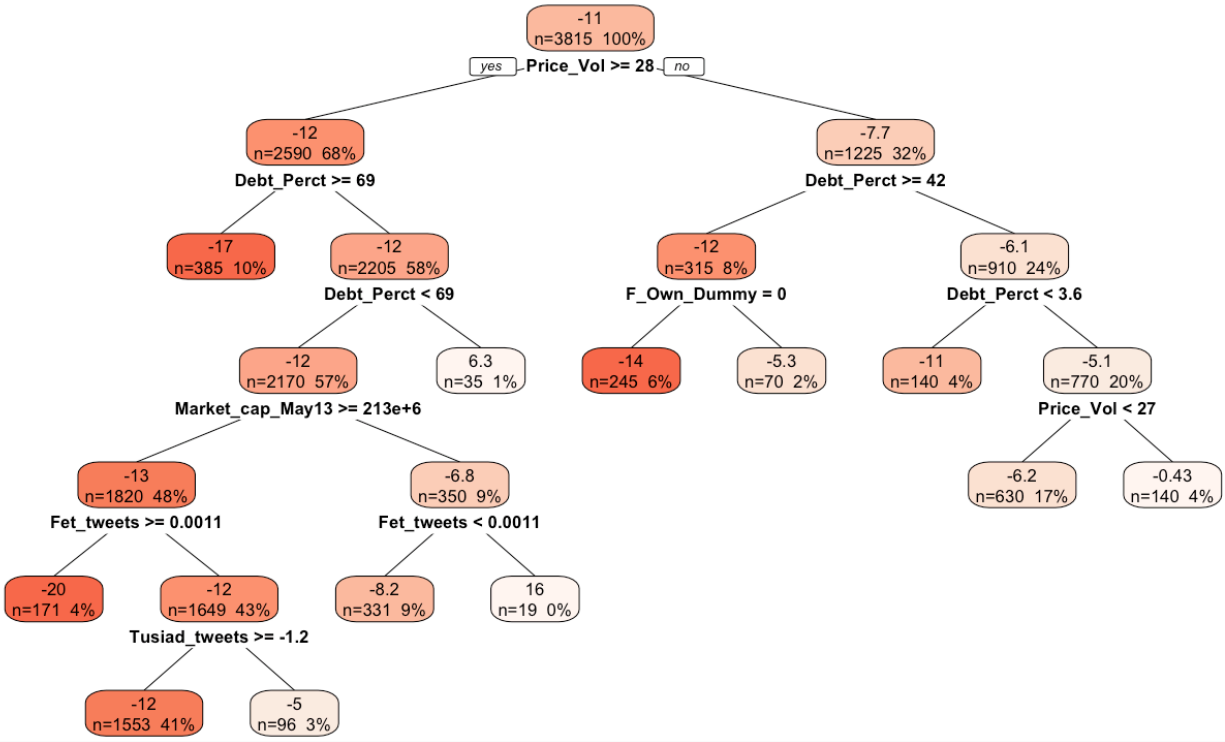


Figure 11:



C. Future Persistence

Another way to answer the question of whether the effects of the political affiliations to firms can only be observed in the context of the failed coup attempt of 2016 is to investigate events after the failed coup attempt of 2016. The most important difference between analysis in these settings versus analysis in any of the previous settings is that due to the failure of the coup the "Pro-Fetullah" affiliation no longer exists. After the coup most, if not all Pro-Fetullah companies were taken over by a government trustee and then privatized. In this sense any investigation into the effects of political affiliations to firms in after the failed coup attempt of 2016 is concerned with the dichotomy of Pro-Government versus TUSIAD.

After the coup, Erdogan and the AKP won a constitutional referendum that brought in a presidential system with much more centralized powers[25] during the state of emergency declared after the coup that lasted until July 2018. In the context of increased and centralized power of the state in the hands of President Erdogan and decreases in any metric concerning human rights and press freedom, the AKP lost 4 out 5 of the major cities in the municipal elections of 2019 on March 31st. This was quite a big surprise[26], especially because the AKP lost control over Istanbul mayoralty, which it had controlled since 1994 when President Erdogan won the seat. In particular, during the nationwide municipal elections, AKP lost the Istanbul mayoral election by less than 15,000 votes in a city of over 16 million. This lead many inside the AKP to push for a revote[27] of mayoral election of Istanbul, which was realized on the 23rd of June; however, this lead to a unexpected crushing defeat of the AKP by almost 800,000 votes. The fact that AKP lost the re-vote was not completely unexpected, but the margin was completely unexpected (no polling organization came even close to the predicting the margin of victory[28]).

All elections in Turkey occur on a Sunday, which allows us to run the same regression outlined in section III on the same set of firms, except calculating returns as the change in price between March 29 and April 1 of 2019 for the first vote and June 21 and 24 of 2019 for the revote. The results of the two regression are presented in the Table 13 and 14 below. The results show almost no effect with a very high standard error on the effect of Government Supporter affiliation to a firm in the first election, but a statistically significant and negative effect Government Supporter affiliation to a firm in the revote. The result after the first election can be interpreted as investors anticipating a revote given the margin of the opposition candidates win or uncertainty over whether or not the opposition candidate would even obtain his mandate. The result after the second, revote election can be interpreted as a definite change to the political status quo as it was the first instance of anti-AKP and anti-Erdoğan sentiment materializing into political change. This result can be seen as evidence for the persistence of valuation premiums enjoyed by (national) government affiliated firms, but also for the mechanism of depending on the status quo described in Part III.

[25] "Erdogan Claims Vast Powers in Turkey After Narrow Victory in Referendum", The New York Times. April 16, 2017
[26] "An Istanbul mayoral election is rattling Turkey's politics", vox.com. Jun 25, 2019
[27] Ibid
[28] https://en.wikipedia.org/wiki/June_2019_Istanbul_mayoral_election

Table 3: Regression Results for Municipal Elections of 2019

	Dependent variable:	
	Municipal_Elec	
	Simple	Robust
	(1)	(2)
Government Supporter	0.088	0.088
	(0.370)	(0.372)
Perct Domestic Sales	−0.016**	−0.016**
	(0.007)	(0.007)
Market Capitalization	0.000*	0.000***
	(0.000)	(0.000)
Perct Debt	0.002	0.002
	(0.007)	(0.006)
Price Volatility	0.018	0.018
	(0.028)	(0.028)
Strategic Foreign Partnership	0.015	0.015
	(0.456)	(0.480)
Industry: Consumer	1.121	1.121**
	(0.808)	(0.548)
Industry: Consumer Services	0.419	0.419
	(0.816)	(0.717)
Industry: Financials	−0.352	−0.352
	(0.795)	(0.473)
Industry: Healthcare	1.047	1.047*
	(1.178)	(0.632)
Industry: Holding	1.398	1.398*
	(0.879)	(0.784)
Industry: Industrials	0.092	0.092
	(0.749)	(0.467)
Industry: Materials	0.750	0.750
	(0.779)	(0.473)
Industry: Oil and Gas	1.856*	1.856*
	(1.058)	(1.098)
Industry: Tech	0.159	0.159
	(1.088)	(0.593)
Industry: Telecom	0.034	0.034
	(1.358)	(0.957)
Industry: Utilities	0.509	0.509
	(1.112)	(0.676)
Intercept	0.325	0.325
	(1.197)	(1.156)
Observations	109	109
R^2	0.214	0.214
Adjusted R^2	0.068	0.068
Residual Std. Error (df = 91)	1.684	1.684
F Statistic (df = 17; 91)	1.461	1.461
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table 4: Regression Results for Istanbul re-vote of 2019

	Dependent variable:	
	Municipal_Elec_2	
	Simple	Robust
	(1)	(2)
Government Supporter	−1.037*	−1.037
	(0.562)	(0.733)
Perct Domestic Sales	0.021*	0.021*
	(0.011)	(0.011)
Market Capitalization	0.000	0.000
	(0.000)	(0.000)
Perct Debt	0.017	0.017**
	(0.011)	(0.008)
Price Volatility	0.091**	0.091
	(0.042)	(0.059)
Strategic Foreign Partnership	−0.413	−0.413
	(0.693)	(0.513)
Industry: Consumer	0.254	0.254
	(1.200)	(0.809)
Industry: Consumer Services	−0.695	−0.695
	(1.238)	(1.273)
Industry: Financials	−0.546	−0.546
	(1.227)	(1.080)
Industry: Healthcare	−0.396	−0.396
	(1.804)	(0.779)
Industry: Holding	−1.137	−1.137
	(1.350)	(1.238)
Industry: Industrials	−0.666	−0.666
	(1.105)	(0.730)
Industry: Materials	−0.451	−0.451
	(1.176)	(0.769)
Industry: Oil and Gas	−1.512	−1.512
	(1.609)	(1.018)
Industry: Tech	−0.596	−0.596
	(1.654)	(1.461)
Industry: Telecom	0.471	0.471
	(2.069)	(1.213)
Industry: Utilities	−1.171	−1.171
	(1.703)	(1.157)
Intercept	−3.369*	−3.369
	(1.754)	(2.154)
Observations	109	109
R^2	0.160	0.160
Adjusted R^2	0.003	0.003
Residual Std. Error (df = 91)	2.550	2.550
F Statistic (df = 17; 91)	1.019	1.019
Note:	*p<0.1; **p<0.05; ***p<0.01	

D. Non-Political Contexts

Another question concerning the valuation premiums of politically connected firms is whether these premiums can be observed in non-political contexts, specifically whether or not they have an effect during crises that do not directly change the political status quo. Two settings in which to study the effects of these political affiliations to firms are the balance of payments crisis of 2018 and the ongoing COVID-19 pandemic. Both of these events occurred after the coup, therefore as mentioned in part B, the investigation will be concerned with dichotomy of Pro-Government versus TUSIAD.

To analyze the Balance of crisis we select the weekend between the 10th and 13th of August where the largest single day loss of Turkish lira against the dollar occurred (5.57 to 6.71) and to analyze the COVID-19 pandemic we select the weekend between the 13th and 16th of March when the first recorded

death due to COVID-19 was announced[29] along with official announcement of the presence of COVID-19 in Turkey by the Ministry of Health. The selection of these dates allows us to run the same regression outlined in section III on the same set of firms, except calculating returns as the change in price in between the aforementioned dates. The results are presented below in Table 10 and 11 (presented as 2 and 5 respectively) below.

Table 2: Regression Results for Balance of Payments Crisis of 2018

	Dependent variable:	
	BOP_Crisis_Returns	
	Simple	Robust
	(1)	(2)
Government Supporter	−1.594	−1.594*
	(1.059)	(0.897)
Perct Domestic Sales	−0.085***	−0.085***
	(0.023)	(0.018)
Market Capitalization	−0.000	−0.000*
	(0.000)	(0.000)
Perct Debt	−0.072***	−0.072***
	(0.021)	(0.018)
Price Volatility	−0.225***	−0.225***
	(0.080)	(0.067)
Strategic Foreign Partnership	−1.064	−1.064
	(1.311)	(1.256)
Industry: Consumer	0.300	0.300
	(2.303)	(1.093)
Industry: Consumer Services	−1.809	−1.809
	(2.348)	(1.914)
Industry: Financials	−0.602	−0.602
	(2.283)	(1.459)
Industry: Healthcare	−0.201	−0.201
	(3.376)	(1.244)
Industry: Holding	2.519	2.519
	(2.527)	(2.485)
Industry: Industrials	−0.998	−0.998
	(2.140)	(1.663)
Industry: Materials	0.532	0.532
	(2.247)	(1.471)
Industry: Oil and Gas	6.460**	6.460**
	(3.045)	(2.562)
Industry: Tech	−0.363	−0.363
	(3.121)	(1.829)
Industry: Telecom	0.682	0.682
	(3.895)	(1.299)
Industry: Utilities	4.754	4.754**
	(3.176)	(2.060)
Intercept	14.171***	14.171***
	(3.527)	(2.822)
Observations	109	109
R^2	0.394	0.394
Adjusted R^2	0.281	0.281
Residual Std. Error (df = 91)	4.841	4.841
F Statistic (df = 17; 91)	3.481***	3.481***
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table 5: Regression Results for Day after First Covid-19 Death in TR

	Dependent variable:	
	Corona_Returns	
	Simple	Robust
	(1)	(2)
Government Supporter	0.122	0.122
	(0.368)	(0.299)
Perct Domestic Sales	−0.001	−0.001
	(0.007)	(0.006)
Market Capitalization	0.000	0.000
	(0.000)	(0.000)
Perct Debt	−0.005	−0.005
	(0.007)	(0.006)
Price Volatility	−0.084***	−0.084***
	(0.027)	(0.031)
Strategic Foreign Partnership	0.105	0.105
	(0.452)	(0.323)
Industry: Consumer	−1.924**	−1.924
	(0.783)	(1.236)
Industry: Consumer Services	−0.954	−0.954
	(0.813)	(1.268)
Industry: Financials	−0.117	−0.117
	(0.808)	(1.285)
Industry: Healthcare	−2.479**	−2.479**
	(1.180)	(1.184)
Industry: Holding	−1.250	−1.250
	(0.885)	(1.218)
Industry: Industrials	−0.813	−0.813
	(0.730)	(1.220)
Industry: Materials	−0.781	−0.781
	(0.767)	(1.237)
Industry: Oil and Gas	−0.750	−0.750
	(1.056)	(1.451)
Industry: Tech	−2.497**	−2.497*
	(1.085)	(1.352)
Industry: Telecom	−0.008	−0.008
	(1.353)	(1.791)
Industry: Utilities	−0.156	−0.156
	(1.113)	(1.459)
Intercept	−5.091***	−5.091***
	(1.161)	(1.460)
Observations	109	109
R^2	0.253	0.253
Adjusted R^2	0.113	0.113
Residual Std. Error (df = 91)	1.671	1.671
F Statistic (df = 17; 91)	1.813**	1.813**
Note:	*p<0.1; **p<0.05; ***p<0.01	

During the balance of payments crisis, we see a slightly statistically significant negative effect of being a Government Supporter to a firm, while we see no effect during the "first day" of the COVID-19 crisis in Turkey. This may be because investors may view politically connected firms as being able to utilize their connections to learn about information about the COVID-19 outbreak more quickly and accurately[30] than other firms in the economy. Similarly, they may obtain better treatment from the government from in the form of earlier re-entry into the economy in the event of a lockdown or a large portion of any economic stimulus package. As for the balance of payments crisis the slightly statistically significant negative effect of being a Government Supporter to a firm can be interpreted as investors

[29] "Turkey confirms first coronavirus death, more than doubles cases to 98", reuters.com. March 17, 2020
[30] "Istanbul Death Toll Hints Turkey Is Hiding a Wider Coronavirus Calamity", The New York Times. April 20, 2020

reacting to the government inability to deal with the crisis due to the crisis' severity and thus loosing some of the valuation premium these companies enjoy regularly. As a sanity check on the results for the balance of payments crisis, we see that the coefficient estimates for percentage of debt and exposure to the domestic market is both statistically significant and negative. The assumption established in part III.A may not hold in these instances because neither of these settings contain an unanticipated shock, but nonetheless the results can prove to be helpful in illustrating the observed effects of political affiliations to firms during non-political crises.

V. Conclusion

The failed coup attempt of 2016 was a traumatic experience for Turkey, involving an unprecedented level of political chaos in the recent history of the country. It led the already-volatile Turkish economy to the verge of an economic downfall. After surviving the coup attempt, Erdoğan's government restored its power by declaring the state of emergency. The failed coup attempt became the main theme of the political debate and the focus of legislation during this time period.

In this paper, we provide evidence that political affiliations of the companies played an important role in estimating the magnitude of stock returns as a response to given political and policy shocks. The valuations of politically connected firms were more vulnerable to changing political environment relative to those of politically unaffiliated firms. Firms associated with the coup plotters suffered the most negative outcome compared to both groups.

These pieces of evidence motivate our interpretation that the variation in the impact of given shocks to our sample of firms was undoubtedly related to the investors' perception that political connected firms may not able to enjoy similar benefits if political uncertainty increase or the government introduces policies that are seen as less focused on economic support of politically connected firms. This interpretation leads us to conclude that these politically connected firms have a valuation premium which depends on the market's perception of whether politically connected firm will continue to enjoy preferential treatment from the government or not. Thus, in episodes of political and policy shock, politically connected firms may be more vulnerable to a changing political environment.

We find that our results during the failed coup attempt persist across time, both before and after the failed coup attempt. In the context of the Gezi Park Protests, we provide evidence that firms affiliated with the government are negatively affected by social media activity, even after controlling for protests and government repression. We interpret this as the lack of a threat of regime change presented by the protestors during the Gezi Park Protests and social media activity as representing a change in the political status quo vis-à-vis the public's willingness to criticize the government. Therefore, in contexts of large social upheaval without a serious probability of regime change, politically connected firms may be more vulnerable to increased social media activity against the current regime.

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Appendix

Table 1: Regression Results for Important Events during Gezi Park Protests (part 1)

	Dependent variable:									
	May_31_Ret1		May_31_Ret2		May_31_Ret3		May_31_Ret4		May_31_Ret6	
	Simple	Robust	Simple	Robust	Simple	Robust	Simple	Robust	Simple	Robust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Government Supporter	1.300	1.300	1.176*	1.176*	1.697*	1.697	3.604***	3.604**	2.950**	2.950**
	(0.862)	(0.907)	(0.669)	(0.654)	(1.011)	(1.226)	(1.300)	(1.728)	(1.169)	(1.281)
Pro-Fetullah	1.750	1.750	0.090	0.090	−0.920	−0.920	−0.687	−0.687	−0.690	−0.690
	(1.445)	(1.324)	(1.122)	(0.852)	(1.695)	(1.200)	(2.180)	(1.632)	(1.960)	(1.569)
Perct Domestic Sales	0.022	0.022	0.028**	0.028**	0.028	0.028	0.041*	0.041	0.025	0.025
	(0.016)	(0.016)	(0.012)	(0.012)	(0.018)	(0.020)	(0.024)	(0.026)	(0.021)	(0.021)
Market Capitalization	0.000	0.000**	0.000	0.000	0.000	0.000	0.000	0.000***	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Perct Debt	0.004	0.004	−0.017	−0.017	−0.028	−0.028	−0.046*	−0.046*	−0.023	−0.023
	(0.016)	(0.019)	(0.012)	(0.013)	(0.019)	(0.020)	(0.024)	(0.028)	(0.022)	(0.020)
Price Volatility	−0.238***	−0.238***	−0.110**	−0.110**	−0.094	−0.094	−0.081	−0.081	−0.057	−0.057
	(0.067)	(0.062)	(0.052)	(0.045)	(0.078)	(0.072)	(0.101)	(0.101)	(0.091)	(0.090)
Strategic Foreign Partnership	−0.973	−0.973	−0.569	−0.569	0.092	0.092	0.576	0.576	0.080	0.080
	(0.995)	(0.762)	(0.773)	(0.595)	(1.167)	(0.690)	(1.501)	(1.030)	(1.350)	(1.110)
Industry: Consumer	0.531	0.531	−0.880	−0.880	−0.729	−0.729	−0.876	−0.876	−1.493	−1.493
	(1.678)	(1.616)	(1.303)	(1.110)	(1.968)	(1.190)	(2.530)	(1.718)	(2.275)	(1.645)
Industry: Consumer Services	0.736	0.736	−0.075	−0.075	0.170	0.170	−1.615	−1.615	−0.862	−0.862
	(1.734)	(1.625)	(1.346)	(1.253)	(2.033)	(1.877)	(2.615)	(2.209)	(2.351)	(1.839)
Industry: Financials	1.207	1.207	−0.679	−0.679	−1.959	−1.959	−1.786	−1.786	−3.179	−3.179**
	(1.677)	(1.927)	(1.302)	(1.332)	(1.967)	(1.449)	(2.529)	(1.930)	(2.274)	(1.528)
Industry: Healthcare	3.029	3.029*	0.868	0.868	0.214	0.214	−0.366	−0.366	−1.867	−1.867
	(2.517)	(1.657)	(1.954)	(1.109)	(2.951)	(1.222)	(3.795)	(1.885)	(3.413)	(1.557)
Industry: Holding	1.708	1.708	0.457	0.457	−0.508	−0.508	−0.180	−0.180	−2.290	−2.290
	(1.892)	(2.480)	(1.469)	(1.628)	(2.218)	(1.819)	(2.853)	(2.150)	(2.565)	(1.732)
Industry: Industrials	0.464	0.464	0.474	0.474	1.943	1.943	2.981	2.981	2.349	2.349
	(1.546)	(1.584)	(1.200)	(1.157)	(1.813)	(1.705)	(2.331)	(2.290)	(2.096)	(1.927)
Industry: Materials	0.326	0.326	−1.245	−1.245	−0.725	−0.725	−1.890	−1.890	−2.124	−2.124
	(1.634)	(1.527)	(1.269)	(1.031)	(1.916)	(1.295)	(2.464)	(1.700)	(2.216)	(1.608)
Industry: Oil and Gas	0.970	0.970	0.125	0.125	−0.162	−0.162	−1.569	−1.569	−2.828	−2.828*
	(2.262)	(1.843)	(1.756)	(1.099)	(2.652)	(1.152)	(3.411)	(1.655)	(3.067)	(1.585)
Industry: Tech	−0.043	−0.043	1.002	1.002	0.837	0.837	0.436	0.436	2.197	2.197
	(2.588)	(1.941)	(2.010)	(1.269)	(3.035)	(1.277)	(3.903)	(1.675)	(3.510)	(2.054)
Industry: Telecom	3.771	3.771**	2.489	2.489**	0.154	0.154	−0.417	−0.417	−2.332	−2.332
	(2.907)	(1.602)	(2.257)	(1.091)	(3.409)	(1.410)	(4.384)	(2.133)	(3.943)	(2.102)
Industry: Utilities	0.156	0.156	0.740	0.740	1.912	1.912	0.215	0.215	−0.230	−0.230
	(2.353)	(2.218)	(1.827)	(2.164)	(2.759)	(3.117)	(3.548)	(3.929)	(3.191)	(3.446)
Intercept	−6.537***	−6.537**	−3.667*	−3.667*	−4.355	−4.355	−9.793***	−9.793**	−8.102**	−8.102**
	(2.464)	(2.838)	(1.914)	(1.894)	(2.890)	(2.913)	(3.717)	(4.135)	(3.342)	(3.261)
Observations	109	109	109	109	109	109	109	109	109	109
R^2	0.213	0.213	0.212	0.212	0.195	0.195	0.248	0.248	0.243	0.243
Adjusted R^2	0.056	0.056	0.054	0.054	0.034	0.034	0.098	0.098	0.091	0.091
Residual Std. Error (df = 90)	3.605	3.605	2.799	2.799	4.228	4.228	5.437	5.437	4.889	4.889
F Statistic (df = 18; 90)	1.357	1.357	1.345	1.345	1.209	1.209	1.653*	1.653*	1.604*	1.604*
Note:										*p<0.1; **p<0.05; ***p<0.01

Table 2: Regression Results for Important Events during Gezi Park Protests (part 2)

	Dependent variable:									
	May_31_Ret7		May_31_Ret11		May_31_Ret12		May_31_Ret16		May_31_Ret21	
	Simple	Robust	Simple	Robust	Simple	Robust	Simple	Robust	Simple	Robust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Government Supporter	2.932***	2.932***	3.662***	3.662***	3.833***	3.833***	2.982	2.982	2.315	2.315
	(1.071)	(1.075)	(1.132)	(1.197)	(1.230)	(1.296)	(1.982)	(1.851)	(2.141)	(1.941)
Pro-Fetullah	−1.071	−1.071	−1.821	−1.821	−2.058	−2.058	−2.330	−2.330	−1.937	−1.937
	(1.796)	(1.610)	(1.899)	(1.743)	(2.062)	(1.795)	(3.324)	(2.952)	(3.591)	(4.108)
Perct Domestic Sales	0.014	0.014	−0.0002	−0.0002	−0.009	−0.009	0.019	0.019	−0.008	−0.008
	(0.020)	(0.019)	(0.021)	(0.019)	(0.022)	(0.020)	(0.036)	(0.029)	(0.039)	(0.034)
Market Capitalization	0.000	0.000	−0.000	−0.000	−0.000	−0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Perct Debt	−0.022	−0.022	−0.019	−0.019	−0.029	−0.029	−0.061*	−0.061*	−0.052	−0.052
	(0.020)	(0.017)	(0.021)	(0.019)	(0.023)	(0.020)	(0.037)	(0.036)	(0.040)	(0.050)
Price Volatility	−0.032	−0.032	0.017	0.017	0.049	0.049	−0.105	−0.105	−0.081	−0.081
	(0.083)	(0.087)	(0.088)	(0.084)	(0.095)	(0.094)	(0.154)	(0.154)	(0.166)	(0.207)
Strategic Foreign Partnership	0.310	0.310	0.761	0.761	0.520	0.520	1.572	1.572	1.870	1.870
	(1.236)	(0.971)	(1.307)	(1.083)	(1.420)	(1.148)	(2.289)	(1.670)	(2.472)	(1.927)
Industry: Consumer	−2.054	−2.054	−2.366	−2.366	−1.652	−1.652	−1.054	−1.054	0.174	0.174
	(2.084)	(1.925)	(2.204)	(2.275)	(2.393)	(2.380)	(3.859)	(3.127)	(4.168)	(3.678)
Industry: Consumer Services	−2.217	−2.217	−2.838	−2.838	−3.010	−3.010	−2.773	−2.773	−0.174	−0.174
	(2.154)	(1.852)	(2.278)	(1.985)	(2.473)	(2.288)	(3.988)	(3.426)	(4.308)	(4.217)
Industry: Financials	−4.795**	−4.795***	−4.800**	−4.800**	−4.642*	−4.642**	−5.432	−5.432	−3.377	−3.377
	(2.083)	(1.838)	(2.203)	(2.106)	(2.392)	(2.224)	(3.857)	(4.001)	(4.166)	(5.340)
Industry: Healthcare	−3.495	−3.495	−5.476	−5.476***	−4.905	−4.905**	−6.342	−6.342**	−7.220	−7.220*
	(3.127)	(2.127)	(3.306)	(1.892)	(3.590)	(1.967)	(5.788)	(2.944)	(6.252)	(3.706)
Industry: Holding	−3.505	−3.505*	−3.642	−3.642*	−4.120	−4.120*	−5.181	−5.181	−3.393	−3.393
	(2.350)	(1.945)	(2.485)	(2.029)	(2.698)	(2.210)	(4.351)	(3.284)	(4.700)	(4.105)
Industry: Industrials	1.260	1.260	0.383	0.383	0.538	0.538	−0.703	−0.703	−2.278	−2.278
	(1.921)	(1.894)	(2.031)	(1.733)	(2.205)	(1.939)	(3.555)	(2.967)	(3.840)	(3.655)
Industry: Materials	−2.658	−2.658	−3.602*	−3.602*	−3.722	−3.722	−6.652*	−6.652*	−8.638**	−8.638**
	(2.030)	(1.826)	(2.147)	(2.081)	(2.331)	(2.305)	(3.758)	(3.629)	(4.059)	(4.029)
Industry: Oil and Gas	−3.208	−3.208*	−3.802	−3.802*	−3.267	−3.267	−7.016	−7.016*	−7.374	−7.374
	(2.810)	(1.703)	(2.971)	(2.301)	(3.226)	(2.566)	(5.202)	(4.241)	(5.619)	(5.053)
Industry: Tech	0.520	0.520	−0.415	−0.415	−0.056	−0.056	−2.848	−2.848	−3.271	−3.271
	(3.215)	(2.114)	(3.400)	(2.496)	(3.692)	(2.556)	(5.952)	(3.361)	(6.430)	(4.401)
Industry: Telecom	−2.500	−2.500	1.895	1.895	1.764	1.764	1.836	1.836	4.005	4.005
	(3.612)	(1.744)	(3.819)	(1.825)	(4.147)	(1.937)	(6.686)	(3.148)	(7.222)	(4.270)
Industry: Utilities	−3.584	−3.584	−5.717*	−5.717***	−5.108	−5.108**	−8.029	−8.029**	−9.189	−9.189**
	(2.923)	(3.396)	(3.091)	(1.990)	(3.356)	(2.179)	(5.411)	(3.345)	(5.845)	(4.126)
Intercept	−7.755**	−7.755**	−4.568	−4.568	−5.274	−5.274	−7.201	−7.201	−0.641	−0.641
	(3.062)	(3.252)	(3.238)	(3.301)	(3.516)	(3.611)	(5.668)	(5.902)	(6.123)	(8.038)
Observations	109	109	109	109	109	109	109	109	109	109
R^2	0.291	0.291	0.301	0.301	0.296	0.296	0.214	0.214	0.192	0.192
Adjusted R^2	0.149	0.149	0.161	0.161	0.155	0.155	0.057	0.057	0.031	0.031
Residual Std. Error (df = 90)	4.479	4.479	4.736	4.736	5.143	5.143	8.292	8.292	8.957	8.957
F Statistic (df = 18; 90)	2.051**	2.051**	2.150***	2.150***	2.099**	2.099**	1.362	1.362	1.190	1.190
Note:										*p<0.1; **p<0.05; ***p<0.01

Table 3: Regression Results for Important Events during Gezi Park Protests (part 3)

	Dependent variable:					
	May_31_Ret22		May_31_Ret28		May_31_Ret30	
	Simple	Robust	Simple	Robust	Simple	Robust
	(1)	(2)	(3)	(4)	(5)	(6)
Government Supporter	2.461	2.461	1.384	1.384	1.693	1.693
	(2.232)	(2.080)	(2.721)	(2.638)	(2.649)	(2.685)
Pro-Fetullah	−2.968	−2.968	−2.080	−2.080	−1.597	−1.597
	(3.742)	(4.271)	(4.563)	(4.584)	(4.442)	(4.438)
Perct Domestic Sales	−0.011	−0.011	0.003	0.003	−0.0003	−0.0003
	(0.041)	(0.034)	(0.050)	(0.042)	(0.048)	(0.040)
Market Capitalization	−0.000	−0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Perct Debt	−0.068	−0.068	−0.109**	−0.109	−0.113**	−0.113*
	(0.041)	(0.055)	(0.050)	(0.067)	(0.049)	(0.066)
Price Volatility	0.003	0.003	−0.091	−0.091	−0.067	−0.067
	(0.173)	(0.227)	(0.211)	(0.255)	(0.205)	(0.255)
Strategic Foreign Partnership	1.086	1.086	0.251	0.251	0.320	0.320
	(2.577)	(1.840)	(3.142)	(2.070)	(3.059)	(1.951)
Industry: Consumer	0.020	0.020	2.612	2.612	4.007	4.007
	(4.344)	(3.561)	(5.297)	(3.227)	(5.157)	(3.156)
Industry: Consumer Services	−0.770	−0.770	5.212	5.212	7.608	7.608
	(4.489)	(4.268)	(5.474)	(5.443)	(5.330)	(5.512)
Industry: Financials	−3.274	−3.274	−1.730	−1.730	−0.698	−0.698
	(4.342)	(5.619)	(5.294)	(6.274)	(5.155)	(6.077)
Industry: Healthcare	−7.869	−7.869**	−7.376	−7.376**	−4.786	−4.786
	(6.516)	(3.980)	(7.946)	(3.272)	(7.736)	(3.053)
Industry: Holding	−3.080	−3.080	−0.669	−0.669	1.028	1.028
	(4.898)	(4.108)	(5.972)	(3.895)	(5.815)	(3.734)
Industry: Industrials	−2.661	−2.661	−1.256	−1.256	−0.726	−0.726
	(4.002)	(3.635)	(4.881)	(3.333)	(4.752)	(3.173)
Industry: Materials	−8.828**	−8.828**	−6.364	−6.364*	−3.816	−3.816
	(4.230)	(4.077)	(5.159)	(3.847)	(5.022)	(3.560)
Industry: Oil and Gas	−7.690	−7.690	−4.025	−4.025	−1.088	−1.088
	(5.856)	(5.013)	(7.141)	(3.440)	(6.952)	(3.422)
Industry: Tech	−3.255	−3.255	−3.407	−3.407	−3.721	−3.721
	(6.701)	(4.462)	(8.171)	(3.881)	(7.955)	(3.707)
Industry: Telecom	3.318	3.318	6.987	6.987*	7.638	7.638*
	(7.527)	(4.265)	(9.179)	(4.120)	(8.936)	(3.953)
Industry: Utilities	−9.387	−9.387**	−8.009	−8.009*	−7.157	−7.157
	(6.092)	(4.210)	(7.428)	(4.512)	(7.232)	(4.605)
Intercept	−1.722	−1.722	−5.472	−5.472	−5.034	−5.034
	(6.381)	(8.300)	(7.781)	(8.846)	(7.575)	(8.479)
Observations	109	109	109	109	109	109
R^2	0.185	0.185	0.179	0.179	0.191	0.191
Adjusted R^2	0.022	0.022	0.015	0.015	0.029	0.029
Residual Std. Error (df = 90)	9.335	9.335	11.383	11.383	11.082	11.082
F Statistic (df = 18; 90)	1.134	1.134	1.089	1.089	1.181	1.181
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 6: Daily Returns During Gezi: Random Effects

	Dependent variable:			
	Daily Returns relative to May 27			
Government Supporter	3.062*	3.526**	3.186*	3.328**
	(1.661)	(1.664)	(1.653)	(1.665)
Pro-Fetullah	2.497	2.807	3.199	2.472
	(2.784)	(2.789)	(2.772)	(2.789)
Gov-Sup × Protests	0.013	0.068***		0.024
	(0.011)	(0.016)		(0.019)
Pro-Fet × Protests	0.053***	0.090***		0.016
	(0.017)	(0.025)		(0.030)
Gov-Sup × Repression		−0.170***		−0.065
		(0.038)		(0.044)
Pro-Fet × Repression		−0.113*		0.063
		(0.060)		(0.070)
Gov-Sup × Tweets			−1.223***	−1.037***
			(0.194)	(0.232)
Pro-Fet × Tweets			−1.702***	−1.750***
			(0.307)	(0.367)
Perct Domestic Sales	0.028	0.028	0.028	0.028
	(0.030)	(0.030)	(0.030)	(0.030)
Market Capitalization	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Perct Debt	−0.027	−0.027	−0.027	−0.027
	(0.031)	(0.031)	(0.031)	(0.031)
Price Volatility	−0.265**	−0.265**	−0.265**	−0.265**
	(0.128)	(0.128)	(0.128)	(0.128)
Strategic Foreign Partnership	2.003	2.003	2.003	2.003
	(1.909)	(1.909)	(1.909)	(1.909)
Intercept	−5.024	−5.024	−5.024	−5.024
	(4.727)	(4.727)	(4.727)	(4.727)
Industry dummy	Yes	Yes	Yes	Yes
Observations	3,815	3,815	3,815	3,815
R^2	0.009	0.015	0.024	0.026
Adjusted R^2	0.004	0.010	0.019	0.020
F Statistic	1.746** (df = 20; 3794)	2.674*** (df = 22; 3792)	4.688*** (df = 20; 3794)	4.247*** (df = 24; 3790)
Note:				*p<0.1; **p<0.05; ***p<0.01