

**Political Protest and Corporate Philanthropic Giving: A Natural Experiment of  
Sunflower Student Movement in Taiwan**

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# **Political Protest and Corporate Philanthropic Giving: A Natural Experiment of Sunflower Student Movement in Taiwan**

## **ABSTRACT**

Drawing on social movement literature and network spillover effect, we theorize that social movement targeting at a particular political group may bring about negative spillover to politically-connected firms, and consequently, firms are likely to use corporate philanthropic giving to preempt possible damages. We test our theory by examining listed firms in Taiwan that responded to the Sunflower Student Movement against the ruling party Kuomintang (KMT). Our difference-in-differences estimates provide evidence that pre-event linkages to the protested party KMT exhibited significantly higher levels of philanthropic giving following the movement. Furthermore, two important contingencies, namely a firm's location in Taipei and its B2C market type, significantly increased prior KMT-connected firms' philanthropic amount after the social movement than that of non-KMT connected firms. These findings shed fresh light on the spillover effect of political movement on organizations, the adverse impact of political connections, and the insurance function of corporate social activities in counterbalancing the corporate political missteps.

**Keywords:** social movement, philanthropic giving, network spillover, natural experiment, Taiwan

## INTRODUCTION

Social movements exert significant influences on private or public organizations (Van Dyke, Soule, and Taylor, 2004; Den Hond and De Bakker, 2007; Reid and Toffel, 2009; Weber, Thomas, and Rao, 2009; Marquis and Bird, 2018). In this process, activists often seek to have an influence beyond those organizations that they directly target at (Briscoe and Murphy, 2012; Yue, Rao, and Ingram, 2013; Briscoe, Gupta, and Anner, 2015), such that the social changes they pursue may spill over to a wider spectrum in the society (Briscoe and Gupta, 2016). Scholars have made strides in unpacking the spillover effect of social movement in the marketplace, specifically on how activists targeted on one corporation may instigate changes on its peers. For example, organizations observing proximate others attacked by environmental shareholder resolutions started to disclose climate change strategies (Reid and Toffel, 2009). Anti-Walmart activism inadvertently affected the opening decisions of Target, a rival company (Yue, Rao, and Ingram, 2013).

While insightful, prior research has fallen short of examining how organizations may be affected if they are affiliated with political authorities, the direct target of activists (Amenta, 1998; Amenta et al., 2010; McVeigh, Cunningham, and Farrell, 2014). An implicit premise is that political social movement anchoring on one political actor, such as the Democratic Party, is assumed to have an impact only on the targeted party. However, research on social movement outcomes has found that activists seek to make a broader social consensus and more radical social transformation beyond their opposition to the government (Haveman, Rao, and Paruchuri, 2007; Amenta et al., 2010; Marquis and Bird, 2018). Activists scrutinize and mobilize participants in other fields, especially large and influential corporations, in order to confer the socio-political legitimacy to activist claims and lead to a broader diffusion of practices. During the process, if a firm is suspected as activism-resistant, it may receive greater social attention and equally ferocious confrontation as their political counterparts

(Briscoe and Safford, 2008; Gupta and Briscoe, 2019). Recent anecdotal evidence manifests this spillover consequences on large politically-connected corporations: considerable survival threats were presented in firms that linked to Egyptian President Hosni Mubarak's ruling party after his ouster in 2010 and in those tied to the overthrown Qadhafi's family during the 2011 Arab Spring (Darendeli and Hill, 2016). Despite the burgeoning evidence, whether the threats diffuse and apply on those seemingly innocent corporations, and how corporate actors interpret and defend against these threats are largely unknown.

Drawing on a network spillover perspective and social movement literature, this study attempts to examine how social movement exerts diffusive pressure on the politically-connected corporations and elicit their social responsiveness. Prior social movement literature mentioning the negative judgments on political groups mainly referred to the groups' socially inappropriate enactment on policies that do not serve the interest of minorities or the general society (Amenta, 1998; Micklethwait and Wooldridge, 2005). In this study, by revealing a spillover process, we show that this socially irresponsible concern on the political party may spread over to its connected corporations and spur their social responsiveness, such as philanthropic giving.

Our framework highlights an important but less examined mechanism whereby the negative social judgment may spill over among connected actors. Traditional spillover effect has been used to examine contagious threats to industry peers or geographically proximate others (Den Hond and De Bakker, 2007; Reid and Toffel, 2009). Recently it shows an increasing extension to a handful of connected actors (Kang, 2008; Yu and Lester, 2008), with an implication that the negative judgment may contaminate actors in a close network. In political economy research particularly, political linkage frequently has doubtful legality that cannot withstand scrutiny by the public (Jia, Shi, and Wang, 2018). Based on this network contagion reasoning, this study argues for a spillover process in which firms are at the risk of

negative social judgments induced from politically connecting to a social movement target, and ultimately, this negative spillover spurs socially beneficial behaviors from firms to preempt further damage to corporate image.

We test the above argument by using the Sunflower Student Movement in Taiwan as a before-after natural experiment. The Sunflower Student Movement is a protest initiated by students and civic groups on March 18, 2014 in Taiwan, targeting at the ruling party Kuomintang. We consider the Sunflower Student Movement an ideal setting to examine our spillover theory because numerous examples show that firms with linkages to or having explicitly expressed support for the targeted party, KMT, suffered from the diffusive challenges and social disapprovals. For example, citizens are united to boycott against Wang Wang Group, a business explicitly stating their stance by the side of KMT before and during the movement. Politically motivated remarks to support KMT also sparked an outcry on social media where protestors disparaged those pro-KMT businessmen “without conscience” (Wang, 2015). Grounded on these potential threats induced by linkages to KMT, we attempt to highlight the different degrees of philanthropic giving adopted by KMT-connected firms versus non-KMT connected firms as a response, which on one hand demonstrate corporate legality and morality and on the other divert protestors’ attention away from their prior political missteps.

We found that philanthropic giving, as a tool to ameliorate negative social judgment, was increasingly adopted by KMT-connected firms following the incident. Moreover, two organizational characteristics – location in the protest center (i.e. Taipei firms versus firms in other places) and market dependency on protestors (i.e. B2B versus B2C market) – may amplify the perceived threats, and ultimately, strengthen KMT-connected firms’ philanthropic giving behavior after the event. In the first instance, the perceived pressure exerted by protestors in Taipei is higher, which escalates the imperatives for large

corporations to regain positive social judgment and to preempt greater damage to their public image. In the second instance, protestors constitute a larger proportion of revenue sources for B2C firms than for B2B ones, so the B2C players are likely in an urgent need to please protestors with more donations.

Our contribution to scholarship is threefold. Firstly, we extend social movement literature by demonstrating an impact occurred not only on the political target but also on organizations in the commercial field. Secondly, we shed fresh light on the network spillover effect by arguing that the organization associated with the movement target is aware of the negative spillover and proactively takes tactics to neutralize the threats. Thirdly, we contribute to the corporate political activity literature by showing that political connections may harm the politically connected firms and elicit their response. Particularly, corporate social activities can be a panacea to ameliorate the adverse impact of political activities.

### **INSTITUTIONAL CONTEXT: THE SUNFLOWER STUDENT MOVEMENT IN TAIWAN**

On March 18th, 2014, the Sunflower Student Movement driven by a coalition of students and civic groups erupted in the Legislative Council (Legislative Yuan) and later, the Executive Council of Taiwan. Targeting at the ruling party Kuomintang (KMT), the event provides a reshuffle of political and social forces in Taiwan, showing a rising social power in pressuring political authorities to elicit transformation by large.

The movement protested against the ruling party KMT's railroading of the Cross-Strait Service Trade Agreement (CSSTA), a free trade pact that promises greater opportunities and more subsidies for the Taiwanese service sector in the trade with mainland China. Protestors condemned that the KMT's negotiation with mainland government did not get the public endorsement, and that by enforcing the agreement, Taiwan was put at risk of becoming subservient and dependent for survival on economic clout from mainland China.

Although the CSSTA trade pact itself received some endorsements, the most widely held complaint is that the agreement was signed hastily with little opportunity for public review. With minimal public oversight, the KMT-ruled governance was called by protesters a “black box”, a detrimental criticism that the KMT incumbents found difficult to shake off. However, underestimating the backlash from civil society, President Ma Ying-Jeou of the KMT initially remained adamant in support of the CSSTA, which further infuriated the activists. To express their opposition and press their demands, students and civic groups occupied the Legislative Council and then the Executive Council which was under control of KMT, disrupting the regular working of the Legislative Council. On March 30<sup>th</sup>, an unusually large protest rally of purportedly 500,000 people and 22 NGOs took place in Taipei (Hsu, 2014). The Black Island Nation Youth Front, a civic group, even called on a besiege of the KMT branches in all areas in Taiwan. A temporal resolution arose when the KMT Legislative Council speaker Wang Jin-Ping intervened and promised not to put the CSSTA on the agenda until all agreements have been reviewed clause by clause. Wang’s commitment soon won endorsement by other KMT heavyweights, who clearly thought Ma’s hardline response was not conducive to settling the political turbulence. Exploiting this visible divide within the KMT, the Sunflower leaders declared they had “finished the mission of the current stage and secured significant achievement” (Ho, 2015:70). Four days later, the students and their allies evacuated the Legislative Council, signaling an end of the highly dramatized standoff which had drawn attention domestically and internationally. In the aftermath of the movement, activists turned decisively against other unsettled KMT-driven projects and mobilized protests in the broader Taiwan society. Citizens also employed their electoral power to vote against KMT candidates, leading to the party’s fiasco in both the legislative and presidential elections (Liang, 2016).

During and after the crisis, the Taiwanese corporations, holding varied propositions and reactions, were under the spotlight. Massive media reports were directed to them, largely because the CCSTA is a trading agreement closely related to them, but more importantly, gaining the support from the business side empowered the activists to challenge the government. Activists examined the corporate standpoints, particularly their political stances toward the KMT party or toward the social movement *per se*, as an additional movement tactic to generate extensive social support and influence. During the movement, numerous corporations were exposed by media regarding their political stance. For example, Stan Shih, the founder of Acer, advocated for the CSSTA in boosting Taiwan's economy but also respected the students' occupation tactic in Legislative Council in pressuring for review on the pact. Tung Tzu-Hsien, the chairman of Pegatron Corporation publicly supported the pact with mainland China but provided supplies privately for students camped out in the legislature.

Apart from these visible reports, a more implicit but still perceptible corporate act, the prior-event KMT connection, was also risked of being publicly exposed and subject to social condemnation. Political linkage with the two political parties, the KMT and the Democratic Progressive Party (DPP) is a ubiquitous strategy for Taiwanese firms to gain resources (Zhu and Chung, 2014). Some connections are purposefully established and maintained in a monetary base, while others are grounded on the innate social embeddedness which was emerged and sustained by shared political beliefs. Although these party connections allow the firm to enjoy preferential policies, the negative impact is also evident as the connections may bring liabilities to the focal firm, particularly when the linked party actors were in an unfavorable position (Siegel, 2007; Zhu and Chung, 2014). For example, Pacific Construction Group, an adherent of the KMT, experienced difficulty in the new market entry because of the lack of financial resources after the DPP came to power in 2000. The Want



Want China Times Group, one of Taiwan's largest conglomerates with several pro-KMT media outlets and executives in connection with the KMT, provoked mass outrage in the society. The evidence confirmed that the corporate political networks in Taiwan are noticeable and may subject to public scrutiny.

Based on the deeply rooted political connection culture, the Sunflower Movement as an external shock witnessed a dramatically rising liability of the KMT-connection. Apart from being charged socially irresponsible in supporting the KMT, firms even suffered from irresponsible accusations in other social domains. For instance, Foxconn, a well-known loyal supporter of the KMT, was widely criticized on social media by the activists. Even though the Chairman Terry Gou offered to mediate between the activists and the government, the requests were refused by the student leaders, and critics even pointed out that a man with such connections with the ruling party and Chinese government "had no place intervening in a controversy that was directly related to mainland China's growing influence on Taiwan's economy and society" (Cole, 2014).

For these KMT-connected firms, we considered the Sunflower Movement as an exogenous shock occurred unexpectedly and did not show any precursor for them to pre-adjust the connections and forestall the threats. Historically speaking, Taiwan's society was not a fertile ground for radical protests (Ho, 2015). The Taiwanese showed much less willingness to participate in social movement than the Japanese and South Koreans. The Sunflower Movement presents an exception in that its occurrence is beyond the expectations of many political observers. The KMT President Ma Ying-Jeou initially remained adamant in support of the CSSTA, indicating he and his party members did not anticipate the repercussion from activists. As such, we concluded that the prior-event party connections can be exogenous to firms' strategic actions and that, the disruptive social movement in Taiwan

provided an ideal natural experiment setting to investigate these KMT connections and their effects on firm strategic responses.

### **From Government to Corporation: Responsiveness to the Negative Spillover of Political Protest**

Traditional social movements refer to collective actions “seeking to alter power deficits and to effect social transformations through the state” (Amenta et al., 2010:288). The main target of this type of movement is the state or political group which is protested because their political practices (e.g. policy, rules, and laws) are in conflict with the social norms and values (Davis, Diekmann, and Tinsley, 1994; Hoffman, 1999). Usually, their dissented political practices are regarded as socially adverse and being an impediment to social welfare. Unlike social movements targeting at firms through boycotts and blockades, political social movements do not interrupt corporate operations or threaten decision-makers with an immediate loss of revenue. In this sense, most works presume large corporations irrelevant to the condemnation, and further, innocent to the political social movement.

However, a network spillover perspective provides support that social activists, although mainly project their agendas on the targeted political entities, have the ability to evoke social changes extensively, to include other actors in a wider field (Amenta et al., 2010). The negative spillover literature (Lei, Dawar, and Lemmink, 2008; Jonsson, Greve, and Fujiwara-Greve, 2009) proves such a transmission of threats from the culpable organization to others that audiences see as related. Particularly, a contagion of negative social judgment can take place among actors with connections to the responsible actor (Adut, 2005). Empirical work on audiences’ judgments also found effects of the association through visible interorganizational connections in the focal organizational population (Podolny, 1993) or between the focal population and mediators who shape the audiences’ judgments (Zuckerman, 1999). The main reasoning is that directly linked organizations resemble one

another, both in attitudes and in behaviors (Brass, Butterfield, and Skaggs, 1998). Hence, negative social judgments applied to a protested organization may diffuse to its connected organizations which are perceived behaviorally and attitudinally similar, and this similarity is easily perceived between actors in the same network.

Political connection literature also provides evidence of the negative spillover effect among the connected organizations. Studies indicated that political connections can be a liability for firms when they are mistakenly connecting to a political party that falls from power (Siegel, 2007; Zhu and Chung, 2014). This stream of literature highlights that different political groups are sensitive to corporate political behaviors and may retaliate firms that befriend to their political enemies. Another burgeoning stream, from the social stakeholder perspective, questions the legality or morality of corporate political connections (Fisman and Wang, 2015; Jia, Shi, and Wang, 2018). Specifically, some large corporations financially support the political force to initiate policies that are favorable to them but at the same time may be detrimental to the larger society. Both streams demonstrate there exists negative judgments diffused from its political partner and these negative judgments may come from either the political actors or social forces. In this study, we show that social movement pushes the social forces to the forefront, a group of stakeholders that are empowered during the protests and supersede the political force to impact on corporate decisions.

Given the negative spillover among connected others and the pivotal role of social forces in casting the negative judgments, corporate decision-makers in the political network become alert to these mounting anger from social forces, and enact strategies to manage perceived threats resultant from a possible attack. To counter the potential criticisms centering on social norm violation or social welfare deviation, the strategic response largely falls in bolstering the corporate socially responsible image. For example, Baron (2001) found that firms that had not directly attacked by environmental activists began to introduce “green”

policies to improve their public image for fear of upcoming threats. Similarly, Reid and Toffel (2009) found that firms started to disclose carbon emission and climate change strategies after observing their peers were attacked by environmental shareholder resolutions. The diffuse pressure breaks the pattern of nonresponse to political social movement and spurs corporate responsiveness to preempt further damage (Den Hond and De Bakker, 2007).

Furthermore, a perception of the threat spillovers from protests may influence the magnitude of response differently. Zhang and Luo (2013) suggested that stronger anticipated pressures exerted by the perceived organizational vulnerability from activism may give rise to a higher magnitude of corporate response. Extending their insight, we further posit that certain organizational characteristics, such as locating in the activism center and dependency on the protestors, influence the way executives anticipating threats from the activist campaign and that these perceived threats evoke different degrees of urgency and further variations in corporate philanthropic response.

### **Corporate Responsiveness to Political Social Movement Through Philanthropic Giving**

Previous studies have shown that firms introduce certain strategies to fend off attacks from activists who have already attacked similar others (Baron, 2001; Reid and Toffel, 2009). Widely documented responses to social movements are concession and resistance. These direct responsive tools, however, are unlikely to exonerate the firm from residual accusations. For political social movement particularly, a direct response such as cutting down KMT connections hardly gets implemented overnight (Zhu and Chung, 2014) and even accomplished, a firm may suffer from resource suspension by their prior KMT connectors. Thus, to help firms mitigate existent negative judgment, hedge against ongoing accusations but still retain the political privileges, it is necessary to account for more indirect tools that allow them to generate enough prosocial image and meanwhile exempt from a new round of

social disputation or political isolation (McDonnell and King, 2013; Darendeli and Hill, 2016).

Given the socially irresponsible judgment of corporate KMT embeddedness and abrupt nature of Sunflower Movement, we contend that firms will adopt one indirect tactic, philanthropic giving, as a well-suited counter measure. In contrast to concession responses, these giving behaviors strategically circumvent protestors' vilifying charges, and do not explicitly confess the movement's existence or the missteps of firms' prior political engagements. Several studies provide evidence that organizations regain positive social judgments when they actively engage in philanthropy after the crisis. Wang and Qian (2011) suggested that philanthropy is one routine element of organizations' ongoing effort to enlist and retain the support of their primary audiences. Godfrey (2005) found that charitable efforts to construct a socially responsible appearance are rewarded with "reputational capital". Muller and Kraussl (2011) contended that philanthropy may buffer a firm from being targeted by extra-institutional attacks.

In this study, we propose an "insurance" effect of philanthropic giving (Luo, Kaul, and Seo, 2018) in ameliorating the negative public perception diffused from the movement in at least three ways. First, philanthropy represent a kind of performance that firms routinely engage in as they seek to maintain a viable image of commitment to socially responsible behaviors, norms, and values (Godfrey, Merrill, and Hansen, 2009; Koh, Qian, and Wang, 2014; Du, 2015; Luo, Kaul, and Seo, 2018). Second, the philanthropy can be contributed in a timely manner. Zhang and Luo (2013) investigated the swiftness of philanthropic giving and found firms under great image vulnerability donate more quickly, which demonstrates the possibility of corporate philanthropy in overcoming the incidental negative effect. Third, without concurrently reminding stakeholders about their political missteps, philanthropic giving emphasizes other positive attributes of the company (Du, 2015) and, unlike direct

political responses, donation prevents the firm from losing its established political ground.

According to Koehn and Udeng (2010), the general positive image arising from philanthropy has prompted the firm to herald the strategy as a crisis management tactic, allowing firms to underline what they are doing socially responsible while downplaying what they are not.

Therefore, we expect:

***Hypothesis 1:** Firms with pre-event linkages to the protested party KMT exhibited significantly higher levels of philanthropic giving following the Sunflower Student Movement than non-KMT connected firms did.*

### **Variation in Negative Spillover and Corporate Social Responsiveness**

If, as we stated above, KMT-connected executives sensing threat spillovers from the movement respond with corporate philanthropy, then firms anticipating greater negative spillovers regarding their pro-KMT stance may be pressured to exhibit a higher magnitude of the donation amount. Prior studies suggested that stronger external pressure prompts firms to respond more substantively (Zald, Morrill, and Rao, 2005; Zhang and Luo, 2013). We extend this argument to include two firm characteristics in the social movement context – first, firms' location in the central or peripheral venue of social activism and second, firms' market dependency on social activists. We posit that different anticipated pressures for these two types of firms lead to varying magnitudes of their philanthropic giving.

**Firm Location (Taipei vs. Non-Taipei Firms).** For Sunflower Movement, the most serious threats were centered in the capital (Rowen, 2015), Taipei, where thousands of supporters rallied on the streets and continued to rock even after the student occupation ended. Social movement literature has linked the protest scale with its social impacts such as larger threats suppressed, more adverse perceptions among the media, and greater risks perceived by investors (McVeigh, Cunningham, and Farrell, 2014). Thus, KMT-connected firms headquartered in Taipei, the center of activism, tended to sense greater movement

pressures than other regions with less activist rallies. Particularly when online media rampantly pressed protest achievements and exposed about businessperson's political opinions, managers are more cautious about potential damaging spillovers (Luo, Zhang, and Marquis, 2016) from their established KMT connections. To preempt these anticipated damages on the corporate image, a greater amount of philanthropy should be given to signal their substantive contributions and concerns on social welfares. Thus, we hypothesize:

***Hypothesis 2:** KMT-connected firms located in the movement center, Taipei, will show a greater increase in philanthropic giving following the Sunflower Student Movement than non-KMT connected firms.*

**Market Served (B2C vs. B2B Firms).** The perceived pressures from a social movement largely rest on the organizational dependence on the market attacked by the activists (Pacheco and Dean, 2015). King (2008) found that firms were more likely to concede to the protest claims when protestors exert leverage on revenue dilution or threatening on public image of a firm. As such, we posit that firms with greater dependence on a market that is dominated and threatened by activists may elicit a greater magnitude of social responsiveness to avoid further diffused damages.

B2C market, where individual customers constitute the main revenue sources, may be more vulnerable to the student movement because a large proportion of the firm's direct purchasers are participants in the Sunflower Movement and challengers to the KMT-connected firms. They hold greater bargaining power in spreading negative messages among other customers and mobilize them to defend collectively against the potential movement target (Amenta et al., 2010; McDonnell, King, and Soule, 2015). Under these conditions, even when the social movement spillovers have not yet happened or relatively imperceptible, firms are likely to respond in greater efforts to defend the latent influence. This is because the potential repercussions can be significant enough to undermine corporate operations despite

the spillover effects. In this sense, we argue that KMT-connected firms serving a B2C market are under greater anticipated threats and try to send a stronger signal of corporate philanthropy in diverting activists' attention and avoiding their suspicions.

KMT-connected firms in the B2B context, however, tend to discount such protests because protestors are not their primary stakeholders (e.g. customers or employees) – neither the revenue sources nor the resource providers (Rao, Agarwal, and Dahloff, 2004; Brower and Mahajan, 2013). In other words, protestors have weaker power to pressure on the KMT-connected firms operating in the B2B context to respond substantively. For example, Want Want Group, a conglomerate with media outlets and branches selling beverage and crackers in Taiwan was threatened by protestors' boycott warning. The Formosa Plastics Group, another company firmly stood with the pact, did not experience as severe backlashes as Want Want because its main revenue sources are businesses in the petrochemical industry rather than mass individuals. Thus, we hypothesize:

***Hypothesis 3:** KMT-connected firms serving a business-to-consumer market will show a greater increase in philanthropic giving following the Sunflower Student Movement than non-KMT connected firms.*

## **METHOD**

### **Data Source and Sample**

Our sample consists of Taiwan listed firms from 2012 to 2016. We collected financial data and cooperate governance data from the Taiwan Economic Journal (TEJ) database, which is widely used in the Taiwan-context research (Zhu and Chung, 2014; Mahmood, Chung, and Mitchell, 2017). The philanthropic giving data is also included in the TEJ database. We excluded firms in utilities and financial services because of the different operating and reporting environment. Since Sunflower Student Movement occurred on March 18, 2014, we focused on two years before and two years after the event to capture the pre-treatment and



post-treatment trends of philanthropic giving (Moser and Voena, 2012) and used the quarterly data to shorten the event window to reduce the effect of confounding events (DeFond et al., 2014). This leads to a before-matched sample with 30,429 firm-quarter observations between the first quarter of 2012 and the last quarter of 2016.

**Treatment Sample Construction.** The treatment sample includes firms with KMT connection before the Sunflower Student Movement. The political party connections are reflected upon firms building ties (Cooper, Gulen, and Ovtchinnikov, 2010) or making campaign contributions to political parties (Zhu and Chung, 2014). Hence, to build our treatment sample, we collected information about firms' connections to the KMT central committee, pro-KMT stance, and political contribution to KMT. For connections to KMT central committee, we identified enterprises with directors or supervisors from the KMT central committee in 2014 by matching the names of central committee members from the KMT website ([kmt.org.tw](http://kmt.org.tw)) with the director and supervisor information from TEJ Database. For pro-KMT stance, we drew on the measurement employed by McDonnell and King (2013) and Zhu and Chung (2014) to consider the political stances of firms. Specifically, using the WiseNews Database ([libwisesearch.wisers.net](http://libwisesearch.wisers.net)), we began by pairing the firm names, Chairman names, and CEO names with the Kuomintang (KMT) as the keywords to search the newspapers in Taiwan from 2009 to 2014. We then read this news one by one to identify if firms had public statements in support of the KMT or had an endorsement from KMT dignitaries. This measurement helped us to directly capture the most prominent public impression of firms and led to conservative estimates (McDonnell and King, 2013). Lastly, we considered firms with more campaign contributions to KMT than the remaining parties as KMT-connected firms. In Taiwan, politician campaign finance data is only available in paper format disclosed by the government and each party. To promote transparency of information and citizens' participation in public affairs, a decentralized civic tech community gØv

conducted a captcha-like game to crowdsource optical character recognition on these non-digitized documents (Jacomet, 2017), which provided us with access to the last-three-period political contribution data. We focused on Taiwan's listed firms' political contribution behaviours in the eighth (2012) Legislative Council Election to identify firms' KMT connections. The results remained similar when including the seventh (2008) Legislative Council Election data.

**Matched Sample Construction.** We studied the differential impact of the Sunflower Movement on KMT-connected firms on philanthropic giving by implementing a difference-in-differences estimate. The assumption is that these KMT-connected firms, in the absence of the Sunflower Movement, would have experienced common philanthropic giving trend as the control group (Moser and Voena, 2012). However, different characteristics of firms will affect the likelihood to be KMT-connected. For example, as shown in Appendix Table A1, older, larger, and less efficient firms are more likely to be KMT-connected. Thus, we employed the propensity score matching (caliper matching technique with a pre-defined propensity score radius of 0.01) (DeFond et al., 2014) to address this selection bias and ensure the common trend holds (Heckman, Ichimura, and Todd, 1997). We first estimated the propensity score that firms have KMT connections. Because what we cared about was firm characteristics in face of the shock, we used a logit model based on firm characteristics in the quarter before the Sunflower Movement (Jung and Shin, 2019). First, we matched on CEO duality (*CEO duality*), compensation ratio to profits (*Compensation*), and the number of independent directors (*Independent director*) to isolate the effect of CEOs' power and motivation. Besides, following DeFond et al. (2014), all controls in the difference-in-differences identification were included to decrease the differences of all factors that would affect firms' philanthropic giving between the treatment group and control group. We matched on firm age (*Firm age*), assets (*Asset*), revenue (*Revenue*), ROA (*ROA*), leverage

(*Leverage*), R&D intensity (*R&D intensity*), and tax rate (*Tax rate*) to control for the possibility that these financial traits influence firms' political activities. We matched on investments in mainland China (*Mainland investment*), export ratio (*Export ratio*), government ownership (*Government ownership*), and foreign ownership (*Foreign ownership*) to filter out the variation in local political dependence. And we matched on the Taiwan Corporate Credit Risk Index (*Credit risk*) and CSR scandals (*CSR event*) to control for firms' ability and motivation to make KMT connections. Finally, the locations, industries, and control types of firms were included to eliminate other general influences (DeFond et al., 2014). For our test, the matching process yielded to a sample of 14,099 firm-quarter observations with a quarter of observations assigned to the treatment group.

### **Dependent Variable**

Our dependent variable, the amount of corporate philanthropic giving (*Philanthropic giving*), became a mandatory disclosure item in Taiwan since 2012. To filter out the influence of inconsistent accounting standards, we collected data from 2012 to 2016 and aggregate it into each quarter. Because this variable is highly skewed, following previous research (Galaskiewicz, 1997; Wang and Qian, 2011; Marquis and Tilcsik, 2016), we log-transformed (+1) the quarterly corporate philanthropic giving as a record.

### **Independent Variables**

Community and market are two important characteristics accounting for the variations of movement effects within the treatment group. We used *Taipei firm* to indicate the firms operating in the social movement center. The value equals to 1 when the firm is headquartered in Taipei and 0 otherwise. As discussed previously, the purchasing decisions of individual consumers are more likely to be affected than the business entities by the movement. Thus, we partitioned our sample into two categories: firms whose predominant consumers are individuals or businesses. Drawing on the classification of Lev, Petrovits, and

Radhakrishnan (2010) and Sharpe (1982), we assigned 1 to the independent variable *B2C* for firms operating in consumer-goods industries and 0 otherwise<sup>1</sup>.

### **Control Variables**

To carefully control for unobserved factors, we included year and quarter fixed effects to control for trends and other events that similarly influence the treatment and control groups. We also controlled for industry and city fixed effects to make it an exclusive exploitation of cross-sectional variation within a certain industry and city. The control types of groups have been found a key factor that affects firms' strategic behaviours especially in Taiwan (Luo and Chung, 2005; Chung and Luo, 2008; Chung and Luo, 2013). Thus, we classified the control types of firms in Taiwan into four categories: common governance firms, firms governed by a single family, firms governed by public shares, and firms governed by professional managers. We then used dummies to account for the effects of different control types.

We controlled for some financial traits previously shown to affect corporate philanthropy (Luo et al., 2015; Marquis and Tilcsik, 2016). Specifically, we controlled for firm ages (*Firm age*), logged total assets (*Asset*), logged revenue (*Revenue*), as well as ROA (*ROA*), financial leverage (*Leverage*), R&D intensity (*R&D intensity*), and tax rate (*Tax rate*) (Ferguson and Voth, 2008). Prior research also showed that CSR might be more important when firms are highly dependent on certain markets (Tilcsik and Marquis, 2013) or stakeholders (Marquis and Qian, 2014) is high. Thus, we controlled for firms' investment in mainland China (*Mainland investment*) which is calculated by the ratio of mainland investments to the total assets, export ratio (*Export ratio*), government ownership

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<sup>1</sup> The classification of Lev, et al. (2010) and Sharpe (1982) is based on the SIC codes of American listed companies. We match the industry names of our matched sample with their classification and assign the new TES industry codes of Taiwan listed companies: M1200, M1600, M2325, M2327, M2328, M2329, M2330, M2700, M2900, M3200, and M3200, in the consumer-goods industries. This classification result in 284 firms (5,341 observations) in the high customer sensitivity category which accounts for about 36.73 percent of the total number of companies. The result is similar to the two previous studies which are 41.83 percent and 35.93 respectively.

(*Government ownership*), and foreign ownership (*Foreign ownership*) to assuage these concerns. Finally, we used the Taiwan Corporate Credit Risk Index (*Credit risk*) provided by TEJ database and aggregated the quarterly number of CSR scandals (*CSR event*) to capture the effect of the existing bad reputation (Zavyalova et al., 2016).

## RESULTS

### Summary Statistics

Table 1 presents the univariate test result comparing KMT-connected firms and matched firms based on the propensity score matching. We employed a T-test and found that KMT-connected firms no longer differed from non-KMT-connected firms across all the dimensions matched ( $p > 0.1$ ) and the overall  $p$ -value is 0.991. The result suggests a balance of covariates in our matching process and comparability across the resulting treatment and control group.

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Insert Table 1 about here  
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Table 2 provides descriptive statistics and correlations for all variables in our models. This table suggests that both the KMT connection and the occurrence of the Sunflower Movement are positively correlated with the corporate philanthropic giving. This is in line with our prediction.

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Insert Table 2 about here  
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For the outcome variable, we present the graphical tendencies of corporate philanthropic giving of both treatment group and control group in Figure 1. The vertical axis represents the average of philanthropic giving of both KMT-connected and non-KMT-connected firms. Because philanthropic giving has not been incorporated into the mandatory disclosure items until 2012, the graph shows a sharp increase in the last quarter of 2012 (quarter = -5). We included quarter 0 as a pre-movement quarter, which is a conservative

choice and should attenuate our effect (Koh, Reeb, and Zhao, 2017; Powell and Seabury, 2018). When we took quarter -5 to quarter -1 into consideration, we found a similar trend of philanthropic giving in both groups. This implies that these KMT-connected firms, in the absence of shock, would have taken similar philanthropic giving behaviour as the non-connected group, which preliminarily ensures the satisfaction of common trend assumption in difference-in-differences estimation (Moser and Voena, 2012).

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 Insert Figure 1 about here  
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### Hypothesis Test

We used a firm-quarter panel with a difference-in-differences design for our main effect analysis and then tested the triple differences in the moderating effect analyses:

$$\begin{aligned}
 \text{Philanthropic Giving} = & \alpha_0 + \beta_1 \text{KMT connection}_c + \beta_2 \text{Post event}_t \\
 & + \beta^* \text{KMT connection}_c \cdot \text{Post event}_t \\
 & + \beta_3 M_{ct} + \beta_4 \text{KMT connection}_c \cdot M_{ct} + \beta_5 \text{Post event}_t \cdot M_{ct} \\
 & + \beta^{**} \text{KMT connection}_c \cdot \text{Post event}_t \cdot M_{ct} \\
 & + \gamma Z_{ct} + \text{Year}_t + \text{Quarter}_t + \text{Industry}_{ct} + \text{City}_{ct} + \text{Control Type}_{ct} + \varepsilon_{ct} ,
 \end{aligned} \tag{1}$$

Where *KMT connection* is a vector of treatment variable equal to 1 when a firm is connected to the KMT (0 otherwise). *Post event* captures the occurrence of the Sunflower Movement and equals 1 for quarters after the first quarter of 2014 (0 otherwise). *M<sub>ct</sub>* represents a specific moderator in each specification. *Z* captures all controls. *Year*, *Quarter*, *Industry*, *City*, and *Control Type* indicates the year, quarter, industry, city, and control type fixed effect respectively. The variables of interest are the coefficients on the interaction terms,  $\beta^*$  and  $\beta^{**}$ .  $\beta^*$  captures the incremental change in corporate philanthropy during the Sunflower Movement for the KMT connected firms versus non-KMT connected firms and

$\beta^{**}$  captures the triple differences led by specific moderators. Because the sample selection bias and omitted variable bias have been constrained by the natural experiment estimation, all regressions are estimated by OLS (Greenstone and Hanna, 2011).

Table 3 report the regression results for the difference-in-differences models focusing on the effect of the Sunflower Movement on KMT-connected firms' corporate philanthropy and the effect of moderators on the tendencies of corporate philanthropy. Our emphasis is on the interaction term, *KMT connection* × *Post event* and the triple differences.

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Insert Table 3 about here  
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Model 1 is the baseline model, where we find that firms with a long history, high assets, and faced with CSR scandals would increase their philanthropy. This suggests that the selected control variables well control for other characteristics that could influence our dependent variables. In model 2, we added more variables to capture the direct effect of KMT-connections, the Sunflower Movement, Taipei headquarters, and operation in the B2C market. We find that these KMT-connected firms engage more in corporate philanthropy, but the Sunflower Movement does not significantly alter general corporate philanthropy. This makes sense since those non-connected firms whose philanthropic strategies are unaffected during the event take up most of the full sample. Actually, when we exclude the treatment group, we find the coefficients on *Post event* in Model 2-6 are slightly significant and show the negative effect of the Sunflower Movement on philanthropic giving by non-KMT connected firms.

In model 3, we tested if pre-event linkages to the protested party KMT exhibited significantly higher levels of philanthropic giving following the Sunflower Movement (hypothesis 1). Consistent with our prediction, the difference-in-differences estimator in Model 3 is positive (coefficient = 0.3897) and highly significant ( $p = 0.0000$ ). This indicates

that our hypothesis 1 is well supported and the occurrence of the Sunflower Movement will increase the *Philanthropic Giving* of these KMT-connected firms by 54.32%<sup>2</sup>.

Model 4 and Model 5 are to test hypothesis 2 and hypothesis 3 by estimating the effect of Taipei headquarter and B2C market on the difference-in-differences estimator, which helps us to capture the variations within the treatment group and generates a difference-in-difference-in-differences (DDD) estimator. As shown in Model 4, we find that the coefficient on the triple interaction term is 0.4010 and significant ( $p = 0.0191$ ). This finding leads to the conclusion that KMT-connected firms located in Taipei are more sensitive to the influence of the Sunflower Movement (hypothesis 2). In Figure 2, we present the graphical representation of the moderating role of city type on the relationship between the Sunflower Movement and the KMT-connected firms' philanthropic giving. In the picture, we find that there are no significant differences between the Taipei KMT-connected firms and non-Taipei KMT-connected firms on philanthropic giving. This is in line with the common trend assumption in our difference-in-differences estimation. As a result, after all variables have been controlled in the DDD estimation, for the treatment group, Taipei firms, and the control group, non-Taipei firms, we find no significant differences in their philanthropic giving before the event. However, after the Sunflower Movement, we find significant differences in the philanthropic giving trends between these two groups ( $p = 0.0126$ ). The philanthropic giving of Taipei KMT-connected firms increases by about 100 percent. This finding supports our prediction that the Sunflower Movement has an especially high influence on the firms located in the city it originated.

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Insert Figure 2 about here  
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<sup>2</sup> 54.32% =  $\exp(0.3897) - 1$



In Model 5, the triple-differences estimators capture the additional effect of B2C market type on KMT-connected firms' corporate philanthropic giving before and after the movement. This estimator is positive and highly significant ( $p = 0.0032$ ) with a marginal effect of 0.6500 for KMT-connect firms after the movement, which indicates that KMT-connected firms serving in a B2C market are extremely sensitive to the effect of the Sunflower Movement. We use Figure 3 to graphically indicates the effect. In this picture, we find no significant differences in philanthropic giving between the B2C firms and firms serving in other markets. The reason is similar to the illustration of Figure 2. Although we find that firms serving in the non-B2C market, as indicated by the bottom line, are not significantly affected by the Sunflower movement, we do find B2C firms indicated by the upper line are very sensitive to this movement and their philanthropic giving increase about 120 percent. The slope of changes between these two groups is significantly different ( $p = 0.0014$ ), which supports our initial hypothesis. Finally, model 6 is a full model with all variables. The two DDD estimators are consistent with prior predictions, which support our hypothesis 2 and hypothesis 3. Although the significance of the DID estimator is attenuated by the coexisting DDD terms, the marginal effect of the DID estimation is 0.6287 and highly significant ( $p = 0.0000$ ) overall.

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Insert Figure 3 about here  
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### **Robustness Tests**

Several additional robustness tests are employed to verify the stableness and reliability of our findings. In this section, we changed the measures of our dependent and independent variables, used alternative samples, estimated the effects based on firm-year data, and identified the year-on-year time trends.

**Alternative Measures of KMT Connection.** We used two alternative proxies for KMT-connected firms. The first one is a conservative measure that excludes firms connecting to the KMT purely by political contribution. The second one is to relax the standard of KMT connection by taking the political contribution in the 7th legislative election into consideration. That is, firms contributing more to the KMT in either the 7th and the 8th legislative election will be considered as KMT-connected. The result is provided in Appendix Table A2. Not surprisingly, all our predictions are supported and compared to the conservative measure, the coefficients on the initial measure and the relaxed measure are slightly mitigated overall.

**Alternative Measures of Philanthropic Giving.** Although some studies on philanthropic giving purely employ the natural logarithm as a measure without exploring alternative measures (Galaskiewicz, 1997; Wang and Qian, 2011; Zhang and Luo, 2013; Marquis and Tilcsik, 2016), we included two alternative measures which are widely used, the dummy measure and the ratio measure. Firstly, we captured the philanthropic giving by dummies. Specifically, we assigned *Philanthropic Giving* to 1 for firms with philanthropic giving and 0 otherwise. Then, we calculated *Philanthropic Giving* by the ratio of the amount of philanthropic giving to the total assets. Because of the seasonal fluctuation of financial data (Das, Shroff, and Zhang, 2009), we adjusted the value by dividing the philanthropic giving to total assets to their quarterly means. This leads to a conservative measure since quarter means partially average out the donation growth of the event quarter, and as shown in Figure 1, philanthropic giving of KMT-connected firms experiences a sharp growth right after the movement while the non-KMT-connected do not experience such a shock. Thus, the effect will be attenuated after the adjustment. To handle zero values, we added all numerators and denominators by  $10^{-10}$  (Chin, Hambrick, and Trevino, 2013). Appendix Table A3 indicates all

hypotheses are supported. We also constructed a ratio measure without adjustment and found the results unchanged.

**Alternative Samples.** First, we employed 3-Nearest-neighbors matching to generate a new PSM sample and found all results robust. Second, in prior analyses, we included the 1st quarter of 2014 when the Sunflower Movement happened to make a conservative prediction and the 1st to 3rd quarters of 2012 were also included despite the inconsistent accounting standards. In current analyses, we dropped the observations of these quarters to generate another alternative sample. As shown in Appendix Table A4, the un-tabulated results indicate that this sample generates inferences similar to our main models.

**Firm-year Data.** In this test, we changed the level of analysis to the firm-year level and aggregate all variables for each year. In Figure 4, we graphically demonstrate the yearly trends of corporate philanthropy. All our hypotheses are highly supported.

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Insert Figure 4 about here  
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**Year-on-year Comparison.** To address the seasonal trends of corporate financial situations and strategies, we employed a series of analyses based on a year-on-year comparison. Specifically, we extracted the same quarterly data for each year and replicated all models in our hypothesis tests. Appendix Table A5 indicates that our predictions are relatively stable in each subsample.

#### **Additional Tests**

**Pretreatment Trends of Treatment and Control Groups.** The most important assumption of the difference-in-differences estimation is the pretreatment common trends of the treated and untreated subclasses. To address the concern that the differential changes between the treatment and control groups are driven by preexisting differences in the time trend and test

the satisfaction of this assumption, we employ individual fixed effects and allow  $\beta^*$  in equation (1) to vary across the treatment and control groups.

$$\begin{aligned}
 & \textit{Philanthropic Giving} = \\
 & \alpha_0 + \beta_1 \textit{Treat dummy}_c \cdot \textit{Year dummy}_t + \beta_1 \textit{Untreat Dummy}_c \cdot \textit{Year dummy}_t + \varepsilon_{ct}
 \end{aligned}
 \tag{2}$$

As graphically indicted in Appendix Figure A1, there are no systematic differences in pre-trends across the KMT-connected and non-KMT-connected groups. However, after the Sunflower Movement happened, especially in quarter 2 and quarter 3, there shows sharp changes in the time trends and leads to significant differences in the time trends between these two subclasses.

**Ruling Party Alteration as an Alternative Explanation.** In the 2016 Taiwanese general election which happened on 16 January, the DPP defeated the KMT and won both the presidency and legislature. A concern thus emerged that KMT-connected firms might use philanthropic giving to buffer any adverse effect of the ruling party change and secure them from foreseeable political retaliation. This possibility can be partially foreclosed by Appendix Figure A1, which graphically indicates that there are no significant differences between the treatment and control samples in the trends of philanthropic giving when time approaching the general election (quarter 5-11). To examine the robustness of the result, we further construct two samples to rule out the confounding effect of the ruling party alteration during the general election. Firstly, we eliminated all firms with political contributions to the DPP in the prior two elections, which leads to a treatment group almost with only KMT connections and a control group almost without any political connections. The unchanged results in Model 34-36 of Appendix Table A6 suggest that the difference between these two groups is solely driven by KMT connections. In the second sample, we constructed a treatment group consisting of firms with both KMT and DPP connections and a control group with only KMT

connections<sup>3</sup>. As shown in Model 37-39, there are no significant differences between these two groups, indicating the increasing donation was not driven by the political retaliation concern after the ruling party change.

**Performance Implication of Philanthropic Giving.** The underlying assumption of our main effect is that philanthropic giving can be employed to mitigate the negative spillover of KMT connections during the Sunflower Movement. To confirm our theory, we respectively test the effect of philanthropic giving on profit growth for KMT-connected firms and other firms before and after the movement. The Appendix Table A7 indicates that before the Sunflower Movement, neither the treatment nor the control group profited from philanthropic giving (Model 40, 42 & 44). However, after the shock, as shown in Model 41, 43, and 45, there is a significantly positive effect of philanthropic giving on the KMT-connected firms' profitability but no effect on the non-KMT connected firms. This suggests the insurance role of philanthropic applies to the KMT-connected firms in the post-movement only, which again verifies our theory.

**Time Trends of Political Contribution.** According to our theory, because of the discounts on the KMT, firms would potentially cut off relations with the KMT. To address this possibility, we employ a difference-in-differences estimation on the political contribution to the KMT of firms with pre-event linkages to the KMT and firms without such linkages. Appendix Figure A2 visualizes the result. Not surprisingly, after the Sunflower Movement, the political contribution of the pre-KMT-connected firms decreased sharply when compared to the control subclass. This result provides additional evidence to our theory.

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<sup>3</sup> The definition of the DPP connection is strictly followed to the definition of the KMT connection in the method part.

## DISCUSSION

Our study contributes to research on social movement, network spillover effect, and nonmarket strategies. Firstly, we extend social movement literature from the direct effect on targeted organizations to non-targeted organizations in other fields. Traditional social movement literature largely focused on the strategic responses of direct movement target, leaving the ultimate goal of social movement - to mobilize a widespread societal change out of sight (Briscoe, Gupta, and Anner, 2015; Briscoe and Gupta, 2016). The target's associated organizations, which we considered an important nexus on the chain of pervasive social change, worth a detailed examination of how they interpret and defend against the movement. Thus, this study tapped into a phenomenon that organizations in the commercial field, which we refer to large corporations politically connected to the movement target, suffered from spillover threats and instead responded strategically to the social threats by engaging in more social responsibilities.

Secondly, drawing on the network spillover perspective, we theorize a process of negative judgment spillover from the movement target to other organizations in the same network and elicit these organizations' defensive responses. Traditional spillover literature centered on the negative spillover among organizations in the same industry or sharing similar product identities (Zuckerman, 1999; Lei, Dawar, and Lemmink, 2008). One stream refreshingly raised spillover effect in the network and argued that other organizations in the network may be affected by a focal organization's crisis, not necessarily because they have the same 'bad genes', but because they were perceived proximate to the focal organization by stakeholders (Brass, Butterfield, and Skaggs, 1998; Yu and Lester, 2008). Echoing this logic, we empirically demonstrate that the politically associated organizations are aware of the negative spillover during social movement and proactively take tactics to neutralize the underlying threats.

Finally, this study enriches the literature of corporate political activities in two ways. On one hand, we extend the adverse impact of corporate political activities by identifying a new source that would cast the politically connected firm in a negative light. Different from Siegel (2007) and Zhu and Chung (2014) who viewed the dominant political party as the punitive source to direct adverse exclusion and discrimination at focal firms, we highlight in the social movement setting, it is the civic group rather than the political group who questions the legality and morality of corporate political linkages. On the other hand, we proposed and examined corporate response in CSR to alleviate the liabilities of political connections in the face of social movements. Our results suggested that a firm's CSR activities could be instrumental in insuring it from the repercussions of social movements.

### **Limitations and Directions for Future Research**

This study has some limitations and implications for future research. First, our measure of KMT connection is generally broad and covers different forms of connections. Studies have disentangled the difference of connection depth and breath, formal and informal ties, ascribed and achieved connections (Sun et al., 2015; Zhang, Marquis, and Qiao, 2016; Mahmood, Chung, and Mitchell, 2017). Future research can develop a more detailed categorization of political connections and test their different responses to social activism. Second, the underlying mechanism of threat spillovers arisen from social movements is untested in our model. It would be worthwhile to examine how politically linked firms are socially challenged and to what extent the challenges matter for them.

Third, since the conclusion of this study derives from public firms in Taiwan only, it would be meaningful to replicate the result in other regions as well. As suggested by Mellahi et al. (2016), political and social activities may serve to different stakeholders in institutional environments where social actors do not normally intervene in corporate political decisions. Thus, we expect in other emerging economies, the results of corporate responses to social

movements against the government may be different because the social forces are feeble, and the major stakeholders of nonmarket strategies are government, not the social group (Zhang, Marquis, and Qiao, 2016). However, this result is potentially generalizable to other newly democratized emerging economies such as Brazil, Poland, and South Korea. Finally, more attention should be paid to the spillover effect of social activism. To survey the robustness of our conclusion, future research could extend the movement target from the state to other organizations and examine whether the associated organizations respond in the same way.

### **CONCLUSION**

Do political protests instigate wider social changes, such as, spill over to the commercial field and if so, how do corporations interpret and respond to those changes? To answer these questions, our study contextualizes in a political protest in Taiwan and investigates the protest's spillover effect on non-targeted, large corporations. Our results demonstrate that corporations connected to the movement target, the KMT party, are at the risk of negative social judgment and ultimately, they give more on philanthropy to preempt the negative inferences. This focus enriches our understanding on the spillover effect of political protest on the commercial field and the insurance effect of corporate social activities in countervailing the corporate political missteps.



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## TABLES AND FIGURES

**Table 1.** Univariate Test Comparing KMT-Connected Firms and Matched Firms

	Mean		T-test	
	KMT-connected Firms (N =176)	Matched Firms (N=597)	t-value	p-value
<i>CEO duality</i>	0.250	0.263	-0.270	0.786
<i>Compensation</i>	1.100	1.108	-0.050	0.958
<i>Independent director</i>	1.347	1.350	-0.030	0.979
<i>Firm age</i>	30.557	31.465	-0.630	0.526
<i>Asset</i>	15.907	15.886	0.140	0.885
<i>Revenue</i>	14.126	14.192	-0.380	0.707
<i>ROA</i>	2.353	2.184	0.340	0.736
<i>Leverage</i>	41.290	42.659	-0.730	0.467
<i>R&amp;D intensity</i>	26.111	5.691	0.930	0.355
<i>Tax rate</i>	14.081	15.000	-0.580	0.563
<i>Mainland investment</i>	0.126	0.130	-0.230	0.820
<i>Export ratio</i>	54.224	52.277	0.480	0.635
<i>Government ownership</i>	1.382	0.870	0.750	0.453
<i>Foreign ownership</i>	11.460	10.264	0.770	0.444
<i>Credit risk</i>	5.330	5.336	-0.040	0.969
<i>CSR event</i>	0.074	0.039	0.790	0.430

*Note.* The propensity score matching employing caliper matching technique with a pre-defined propensity score radius of 0.01) is based on based on firm characteristics in the quarter before Sunflower Movement.

**Table 2.** Descriptive Statistics and Correlations

	Mean	S.D.	1	2	3	4	5	6	7
1 <i>Philanthropic giving</i>	0.254	1.937							
2 <i>KMT connection</i>	0.168	0.374	0.160						
3 <i>Post event</i>	0.574	0.495	0.032	-0.004					
4 <i>Firm age</i>	27.53	13.105	0.062	0.247	0.048				
5 <i>Asset</i>	15.146	1.473	0.181	0.404	0.007	0.295			
6 <i>Revenue</i>	13.399	1.757	0.140	0.284	-0.020	0.202	0.828		
7 <i>ROA</i>	1.939	5.157	0.013	0.017	0.008	-0.017	0.124	0.227	
8 <i>Leverage</i>	41.462	25.469	0.026	0.035	-0.017	0.101	0.198	0.219	-0.011
9 <i>R&amp;D intensity</i>	104.656	7611.215	-0.001	-0.004	-0.002	-0.019	-0.006	-0.075	-0.023
10 <i>Tax rate</i>	14.125	15.378	0.014	0.049	0.033	0.053	0.155	0.243	0.198
11 <i>Mainland investment</i>	0.126	0.385	-0.005	0.005	0.007	-0.019	0.064	0.081	0.024
12 <i>Export ratio</i>	57.191	37.189	-0.019	-0.094	0.005	-0.157	0.026	0.162	0.033
13 <i>Government ownership</i>	0.643	3.491	0.026	0.171	0.003	0.035	0.163	0.109	0.018
14 <i>Foreign ownership</i>	9.969	15.397	0.069	0.100	0.052	-0.103	0.373	0.342	0.104
15 <i>Credit risk</i>	5.957	1.546	-0.107	-0.253	-0.011	-0.094	-0.543	-0.585	-0.272
16 <i>CSR event</i>	0.038	0.294	0.038	0.067	0.008	0.077	0.140	0.118	0.009

	8	9	10	11	12	13	14	15
9 <i>R&amp;D intensity</i>	-0.020							
10 <i>Tax rate</i>	-0.004	-0.012						
11 <i>Mainland investment</i>	-0.009	-0.003	0.099					
12 <i>Export ratio</i>	0.016	-0.016	0.095	0.118				
13 <i>Government ownership</i>	-0.024	0.001	0.009	-0.029	-0.065			
14 <i>Foreign ownership</i>	0.001	-0.003	0.114	0.082	0.047	0.046		
15 <i>Credit risk</i>	0.204	0.009	-0.314	-0.072	-0.078	-0.181	-0.357	
16 <i>CSR event</i>	0.043	-0.002	0.006	-0.003	-0.026	0.033	0.054	-0.050

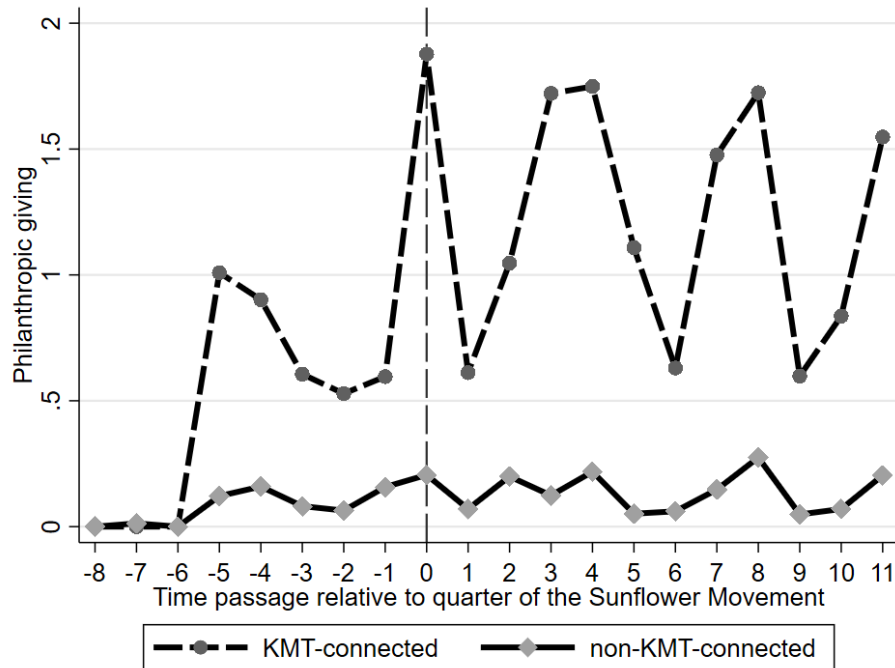
*Note.* Treat equals to 1 when a firm is connected to the KMT (0 otherwise); Post equals to 1 for every quarter after the first quarter of 2014 (0 otherwise).

**Table 3.** Estimates from OLS Regression of Corporate Philanthropy

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Firm age</i>	0.0068*** (0.0017)	0.0058*** (0.0017)	0.0058*** (0.0017)	0.0056*** (0.0017)	0.0061*** (0.0017)	0.0060*** (0.0017)
<i>Asset</i>	0.1775*** (0.0284)	0.1273*** (0.0289)	0.1258*** (0.0289)	0.1164*** (0.0290)	0.1179*** (0.0288)	0.1095*** (0.0289)
<i>Revenue</i>	0.0024 (0.0234)	0.0167 (0.0234)	0.0176 (0.0234)	0.0206 (0.0234)	0.0174 (0.0233)	0.0201 (0.0233)
<i>ROA</i>	-0.0039 (0.0054)	-0.0036 (0.0054)	-0.0035 (0.0054)	-0.0038 (0.0054)	-0.0022 (0.0054)	-0.0025 (0.0054)
<i>Leverage</i>	-0.0004 (0.0012)	-0.0001 (0.0012)	-0.0001 (0.0012)	0.0000 (0.0012)	0.0001 (0.0012)	0.0002 (0.0012)
<i>R&amp;D intensity</i>	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0001 (0.0000)	-0.0001 (0.0000)	-0.0000 (0.0000)	-0.0001 (0.0000)
<i>Tax rate</i>	-0.0023† (0.0012)	-0.0023† (0.0012)	-0.0023* (0.0012)	-0.0024* (0.0012)	-0.0024* (0.0012)	-0.0024* (0.0012)
<i>Mainland investment</i>	-0.0242 (0.0318)	-0.0253 (0.0317)	-0.0230 (0.0317)	-0.0220 (0.0317)	-0.0257 (0.0316)	-0.0248 (0.0316)
<i>Export ratio</i>	0.0004 (0.0006)	0.0004 (0.0006)	0.0004 (0.0006)	0.0004 (0.0006)	0.0002 (0.0006)	0.0002 (0.0006)
<i>Government ownership</i>	-0.0154* (0.0067)	-0.0229*** (0.0067)	-0.0228*** (0.0067)	-0.0219** (0.0067)	-0.0230*** (0.0067)	-0.0221*** (0.0067)
<i>Foreign ownership</i>	0.0014 (0.0014)	0.0023† (0.0014)	0.0024† (0.0014)	0.0025† (0.0014)	0.0024† (0.0014)	0.0026† (0.0014)
<i>Credit risk</i>	-0.0697*** (0.0181)	-0.0582** (0.0181)	-0.0580** (0.0181)	-0.0615*** (0.0181)	-0.0584** (0.0180)	-0.0616*** (0.0181)
<i>CSR event</i>	0.2789*** (0.0588)	0.2841*** (0.0587)	0.2846*** (0.0586)	0.2844*** (0.0586)	0.2804*** (0.0585)	0.2803*** (0.0585)
<i>KMT connection</i>		0.3762*** (0.0427)	0.1585** (0.0611)	0.1359† (0.0725)	0.0592 (0.0746)	0.0418 (0.0836)
<i>Post event</i>		-0.0987 (0.0964)	-0.1912† (0.0981)	-0.1817† (0.1009)	-0.1834† (0.1026)	-0.1751† (0.1050)
<b><i>KMT connection</i> × <i>Post event</i></b>			<b>0.3897*** (0.0782)</b>	0.2701** (0.0933)	0.2279* (0.0968)	0.1203 (0.1085)
<i>Taipei firm</i>		0.0517 (0.2136)		-0.0059 (0.2196)		-0.0144 (0.2192)
<i>KMT connection</i> × <i>Taipei firm</i>				0.0843 (0.1311)		0.0707 (0.1309)
<i>Post event</i> × <i>Taipei firm</i>				-0.0348 (0.0853)		-0.0327 (0.0852)
<b><i>KMT connection</i> × <i>Post event</i> × <i>Taipei firm</i></b>				<b>0.4010* (0.1711)</b>		0.3779* (0.1709)
<i>B2C</i>		0.4723 (0.3592)			0.3577 (0.5736)	0.2592 (0.5742)
<i>KMT connection</i> × <i>B2C</i>					0.2837* (0.1240)	0.2801* (0.1240)
<i>Post event</i> × <i>B2C</i>					-0.0204 (0.0779)	-0.0189 (0.0779)
<b><i>KMT connection</i> × <i>Post event</i> × <i>B2C</i></b>					<b>0.4845** (0.164)</b>	0.4690** (0.164)
Year and Quarter fixed effects	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES	NO	NO
City fixed effects	YES	YES	YES	NO	YES	NO
Control type fixed effects	YES	YES	YES	YES	YES	YES
Constant	-2.3369*** (0.5349)	-2.0154*** (0.5350)	-1.9449*** (0.5347)	-1.7425** (0.5377)	-1.7211** (0.5355)	-1.5403** (0.5383)
Observations	14,099	14,099	14,099	14,099	14,099	14,099
R-squared	0.041	0.046	0.048	0.049	0.051	0.052

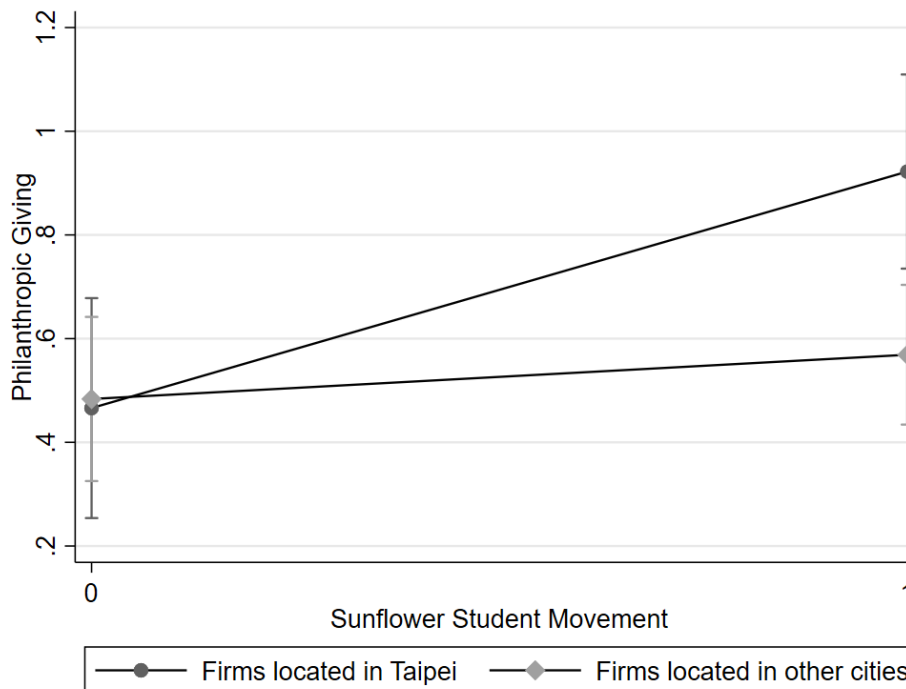
*Note.* Standard errors are in parentheses † $p < .10$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

**Figure 1.** KMT Connection and Mean of Philanthropic Giving: Pre- and Post- Sunflower Movement



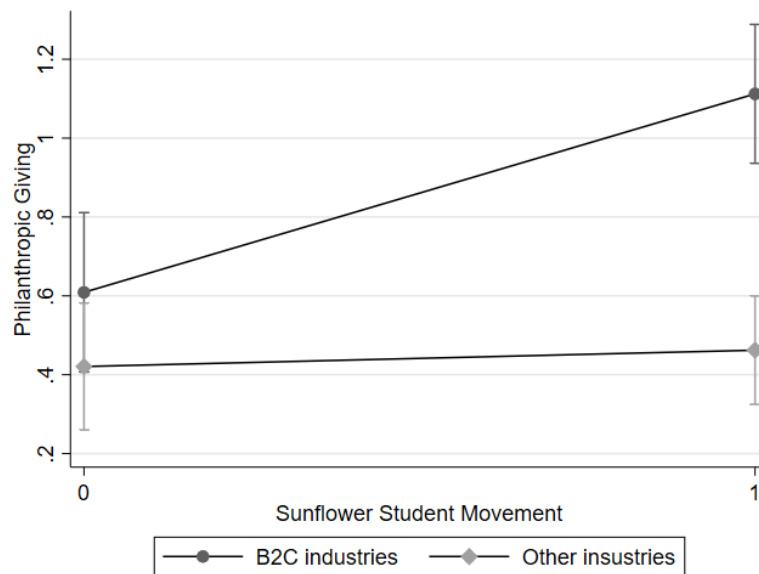
*Note.* Quarter 0 represent the first quarter of 2014 when the Sunflower Movement happened. Because philanthropic giving has not been incorporated into the mandatory disclosure items until 2012, the graph shows a sharp increase in the last quarter of 2012 (quarter = -5).

**Figure 2.** The Role of City Type on The Relationship Between the Sunflower Movement and the Philanthropic Giving of the KMT-connected



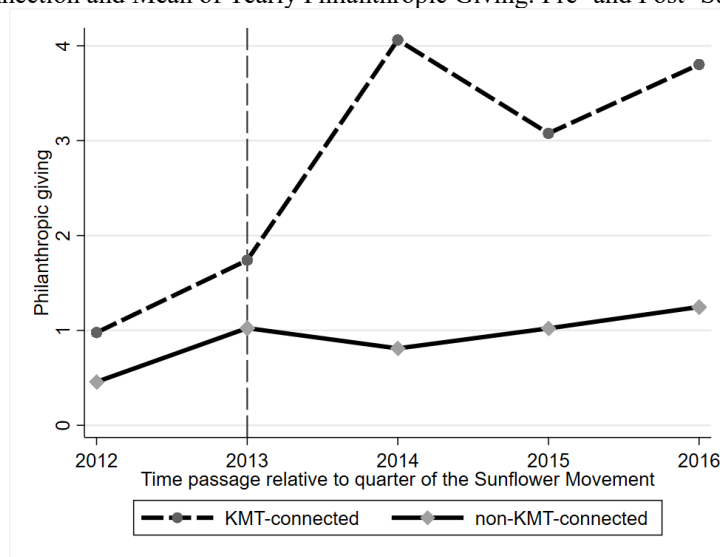
*Note.* 0 on the x-axis represent the time before the Sunflower Movement (1 otherwise).

**Figure 3.** The Role of Market Type on The Relationship Between the Sunflower Movement and the Philanthropic Giving of the KMT-connected



*Note.* 0 on the x-axis represent the time before the Sunflower Movement (1 otherwise).

**Figure 4.** KMT Connection and Mean of Yearly Philanthropic Giving: Pre- and Post- Sunflower Movement



*Note.* 2012-2016 indicate the ends of each year. Specifically, 2013 indicates the end of the year 2013 and the beginning of the year 2014. The vertical line denotes the approximate time that the Sunflower Movement occurred, which is March 2014. Our firm-year sample is constructed from a propensity score matching based on year-level variables.

## APPENDIX A

**Table A1.** Estimates for Logit Regression of Corporate Philanthropy

VARIABLES	Likelihood of being KMT-Connected
<i>CEO duality</i>	-0.1219** (0.0411)
<i>Compensation</i>	-0.0043 (0.0052)
<i>Independent director</i>	-0.0014 (0.0172)
<i>Firm age</i>	0.0260*** (0.0017)
<i>Asset</i>	0.9579*** (0.0286)
<i>Revenue</i>	-0.1122*** (0.0233)
<i>ROA</i>	-0.0106† (0.0063)
<i>Leverage</i>	-0.0124*** (0.0014)
<i>R&amp;D intensity</i>	-0.0000 (0.0000)
<i>Tax rate</i>	0.0020 (0.0013)
<i>Mainland investment</i>	0.0227 (0.0350)
<i>Export ratio</i>	-0.0015* (0.0007)
<i>Government ownership</i>	0.0625*** (0.0059)
<i>Foreign ownership</i>	-0.0206*** (0.0016)
<i>Credit risk</i>	-0.1805*** (0.0188)
<i>CSR event</i>	-0.0964† (0.0583)
Year fixed effects	YES
Quarter fixed effects	YES
Industry fixed effects	YES
City fixed effects	YES
Control type fixed effects	YES
Constant	-13.1572*** (0.4809)
Observations	30,429
pseudo R-squared	0.282
log likelihood	-10080
chi-squared	7906

*Note.* Standard errors are in parentheses † $p < .10$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

**Table A2.** Estimates from OLS Regression of Alternative Measures of Independent Variables

VARIABLES	Conservative measure			Relaxed measure		
	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
<i>Firm age</i>	0.0050** (0.0017)	0.0046** (0.0017)	0.0028† (0.0015)	0.0055** (0.0017)	0.0049** (0.0017)	0.0029* (0.0015)
<i>Asset</i>	0.1158*** (0.0289)	0.1175*** (0.0287)	0.1223*** (0.0263)	0.1379*** (0.0287)	0.1383*** (0.0285)	0.1390*** (0.0261)
<i>Revenue</i>	0.0179 (0.0233)	0.0118 (0.0233)	-0.0295 (0.0209)	0.0102 (0.0233)	0.0049 (0.0233)	-0.0332 (0.0209)
<i>ROA</i>	-0.0035 (0.0054)	-0.0033 (0.0054)	-0.0003 (0.0053)	-0.0025 (0.0054)	-0.0028 (0.0054)	-0.0002 (0.0053)
<i>Leverage</i>	0.0001 (0.0012)	-0.0001 (0.0012)	0.0019 (0.0012)	-0.0003 (0.0012)	-0.0003 (0.0012)	0.0015 (0.0012)
<i>R&amp;D intensity</i>	-0.0001 (0.0000)	-0.0001† (0.0000)	-0.0001 (0.0000)	-0.0001 (0.0000)	-0.0001 (0.0000)	-0.0000 (0.0000)
<i>Tax rate</i>	-0.0021† (0.0012)	-0.0023* (0.0012)	-0.0022† (0.0012)	-0.0024* (0.0012)	-0.0026* (0.0012)	-0.0024* (0.0012)
<i>Mainland investment</i>	-0.0237 (0.0317)	-0.0256 (0.0317)	-0.0317 (0.0315)	-0.0235 (0.0317)	-0.0244 (0.0317)	-0.0303 (0.0316)
<i>Export ratio</i>	0.0005 (0.0006)	0.0006 (0.0006)	-0.0004 (0.0005)	0.0005 (0.0006)	0.0007 (0.0006)	-0.0003 (0.0005)
<i>Government ownership</i>	-0.0253*** (0.0067)	-0.0244*** (0.0067)	-0.0287*** (0.0062)	-0.0220*** (0.0067)	-0.0200** (0.0066)	-0.0265*** (0.0062)
<i>Foreign ownership</i>	0.0018 (0.0014)	0.0014 (0.0014)	0.0021 (0.0013)	0.0023† (0.0014)	0.0019 (0.0014)	0.0026* (0.0013)
<i>Credit risk</i>	-0.0578** (0.0180)	-0.0566** (0.0180)	-0.0664*** (0.0175)	-0.0604*** (0.0181)	-0.0622*** (0.0180)	-0.0720*** (0.0175)
<i>CSR event</i>	0.2791*** (0.0586)	0.2677*** (0.0586)	0.2412*** (0.0580)	0.2806*** (0.0587)	0.2669*** (0.0587)	0.2454*** (0.0581)
<i>KMT connection</i>	0.1819** (0.0693)	0.2584** (0.0828)	0.0890 (0.0846)	0.1522** (0.0585)	0.1256† (0.0689)	0.1178† (0.0709)
<i>Post event</i>	-0.1901† (0.0975)	-0.1807† (0.1002)	-0.1895† (0.1018)	-0.1853† (0.0986)	-0.1764† (0.1016)	-0.1727† (0.1037)
<b><i>KMT connection</i></b> <b><i>Post event</i></b>	<b>0.5277***</b> <b>(0.0877)</b>	0.3892*** (0.1065)	0.3647*** (0.1099)	<b>0.3168***</b> <b>(0.0749)</b>	0.2194* (0.0893)	0.1628† (0.0928)
<i>Taipei firm</i>		-0.0214 (0.0646)			-0.0820 (0.0684)	
<i>KMT connection</i> × <i>Taipei firm</i>		-0.0793 (0.1428)			0.1879 (0.1261)	
<i>Post event</i> × <i>Taipei firm</i>		-0.0290 (0.0824)			-0.0271 (0.0875)	
<b><i>KMT connection</i></b> × <b><i>Post event</i></b> × <b><i>Taipei firm</i></b>		<b>0.4195*</b> <b>(0.1886)</b>			<b>0.3242*</b> <b>(0.1649)</b>	
<i>B2C</i>			-0.0737 (0.0582)			-0.0478 (0.0614)
<i>KMT connection</i> × <i>B2C</i>			0.3736** (0.1368)			0.1976† (0.1190)
<i>Post event</i> × <i>B2C</i>			-0.0026 (0.0753)			-0.0337 (0.0797)
<b><i>KMT connection</i></b> × <b><i>Post event</i></b> × <b><i>B2C</i></b>			<b>0.4500*</b> <b>(0.1825)</b>			<b>0.4761**</b> <b>(0.1584)</b>
Year fixed effects	YES	YES	YES	YES	YES	YES
Quarter fixed effects	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	NO	YES	YES	NO
City fixed effects	YES	NO	YES	YES	NO	YES
Control type fixed effects	YES	YES	YES	YES	YES	YES
Constant	-1.7882*** (0.5353)	-1.6775*** (0.5013)	-1.1576** (0.3902)	-2.1338*** (0.5341)	-2.0396*** (0.4985)	-1.3323*** (0.3899)
Observations	14,099	14,099	14,099	14,099	14,099	14,099
R-squared	0.049	0.046	0.046	0.046	0.043	0.042

*Note.* Standard errors are in parentheses † $p < .10$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$



**Table A3.** Estimates from OLS Regression of Alternative Measures of Dependent Variables

VARIABLES	Dummy measure			Ratio measure		
	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18
<i>Firm age</i>	0.0004*** (0.0001)	0.0004** (0.0001)	0.0002* (0.0001)	0.0009* (0.0004)	0.0009* (0.0004)	0.0004 (0.0003)
<i>Asset</i>	0.0080*** (0.0020)	0.0080*** (0.0019)	0.0081*** (0.0018)	0.0219*** (0.0066)	0.0223*** (0.0065)	0.0228*** (0.0060)
<i>Revenue</i>	0.0011 (0.0016)	0.0008 (0.0016)	-0.0019 (0.0014)	0.0037 (0.0053)	0.0027 (0.0053)	-0.0044 (0.0048)
<i>ROA</i>	-0.0002 (0.0004)	-0.0002 (0.0004)	-0.0000 (0.0004)	0.0002 (0.0012)	0.0001 (0.0012)	0.0007 (0.0012)
<i>Leverage</i>	-0.0000 (0.0001)	-0.0000 (0.0001)	0.0001 (0.0001)	-0.0001 (0.0003)	-0.0001 (0.0003)	0.0003 (0.0003)
<i>R&amp;D intensity</i>	-0.0000 (0.0000)	-0.0000† (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
<i>Tax rate</i>	-0.0002† (0.0001)	-0.0002* (0.0001)	-0.0002* (0.0001)	-0.0007* (0.0003)	-0.0007** (0.0003)	-0.0007* (0.0003)
<i>Mainland investment</i>	-0.0014 (0.0021)	-0.0015 (0.0021)	-0.0019 (0.0021)	-0.0030 (0.0072)	-0.0031 (0.0072)	-0.0036 (0.0072)
<i>Export ratio</i>	0.0000 (0.0000)	0.0000 (0.0000)	-0.0000 (0.0000)	0.0000 (0.0001)	0.0001 (0.0001)	-0.0001 (0.0001)
<i>Government ownership</i>	-0.0018*** (0.0005)	-0.0017*** (0.0005)	-0.0021*** (0.0004)	-0.0050** (0.0015)	-0.0047** (0.0015)	-0.0060*** (0.0014)
<i>Foreign ownership</i>	0.0001 (0.0001)	0.0001 (0.0001)	0.0001 (0.0001)	0.0002 (0.0003)	0.0001 (0.0003)	0.0003 (0.0003)
<i>Credit risk</i>	-0.0041*** (0.0012)	-0.0042*** (0.0012)	-0.0048*** (0.0012)	-0.0103* (0.0041)	-0.0105* (0.0041)	-0.0109** (0.0040)
<i>CSR event</i>	0.0193*** (0.0040)	0.0183*** (0.0040)	0.0168*** (0.0039)	0.0622*** (0.0134)	0.0595*** (0.0134)	0.0532*** (0.0133)
<i>KMT connection</i>	0.0108** (0.0041)	0.0122* (0.0049)	0.0071 (0.0050)	0.0321* (0.0140)	0.0448** (0.0165)	0.0320† (0.0169)
<i>Post event</i>	-0.0138* (0.0067)	-0.0130† (0.0069)	-0.0129† (0.0070)	-0.0361 (0.0224)	-0.0299 (0.0231)	-0.0346 (0.0235)
<b><i>KMT connection</i> × <i>Post event</i></b>	<b>0.0266*** (0.0053)</b>	0.0192** (0.0063)	0.0147* (0.0066)	<b>0.0897*** (0.0179)</b>	0.0528* (0.0214)	0.0410† (0.0222)
<i>Taipei firm</i>		-0.0027 (0.0045)			0.0060 (0.0153)	
<i>KMT connection</i> × <i>Taipei firm</i>		0.0029 (0.0089)			-0.0203 (0.0299)	
<i>Post event</i> × <i>Taipei firm</i>		-0.0025 (0.0058)			-0.0215 (0.0195)	
<b><i>KMT connection</i> × <i>Post event</i> × <i>Taipei firm</i></b>		<b>0.0242* (0.0116)</b>			<b>0.1220** (0.0392)</b>	
<i>B2C</i>			-0.0045 (0.0041)			-0.0101 (0.0137)
<i>KMT connection</i> × <i>B2C</i>			0.0189* (0.0084)			0.0257 (0.0283)
<i>Post event</i> × <i>B2C</i>			-0.0020 (0.0053)			-0.0036 (0.0178)
<b><i>KMT connection</i> × <i>Post event</i> × <i>B2C</i></b>			<b>0.0346** (0.0112)</b>			<b>0.1437*** (0.0376)</b>
Year fixed effects	YES	YES	YES	YES	YES	YES
Quarter fixed effects	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	NO	YES	YES	NO
City fixed effects	YES	NO	YES	YES	NO	YES
Control type fixed effects	YES	YES	YES	YES	YES	YES
Constant	-0.1220*** (0.0363)	-0.1104** (0.0341)	-0.0755** (0.0264)	-0.3551** (0.1222)	-0.3026** (0.1147)	-0.2633** (0.0889)
Observations	14,099	14,099	14,099	14,099	14,099	14,099
R-squared	0.046	0.043	0.043	0.034	0.032	0.032

*Note.* Stand errors are in parentheses † $p < .10$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

**Table A4.** Estimates from OLS Regression of Alternative Sample

VARIABLES	Model 19	Model 20	Model 21
<i>Firm age</i>	0.0057** (0.0020)	0.0052** (0.0020)	0.0031† (0.0017)
<i>Asset</i>	0.1621*** (0.0339)	0.1623*** (0.0336)	0.1603*** (0.0306)
<i>Revenue</i>	0.0133 (0.0273)	0.0078 (0.0272)	-0.0309 (0.0245)
<i>ROA</i>	-0.0031 (0.0060)	-0.0030 (0.0060)	-0.0008 (0.0059)
<i>Leverage</i>	-0.0003 (0.0014)	-0.0005 (0.0014)	0.0015 (0.0014)
<i>R&amp;D intensity</i>	-0.0000 (0.0000)	-0.0001 (0.0000)	-0.0000 (0.0000)
<i>Tax rate</i>	-0.0030* (0.0014)	-0.0033* (0.0014)	-0.0030* (0.0014)
<i>Mainland investment</i>	-0.2177† (0.1136)	-0.2545* (0.1127)	-0.2930** (0.1084)
<i>Export ratio</i>	0.0004 (0.0007)	0.0006 (0.0007)	-0.0004 (0.0006)
<i>Government ownership</i>	-0.0200** (0.0077)	-0.0186* (0.0077)	-0.0245*** (0.0071)
<i>Foreign ownership</i>	0.0024 (0.0016)	0.0021 (0.0016)	0.0030† (0.0016)
<i>Credit risk</i>	-0.0634** (0.0209)	-0.0640** (0.0209)	-0.0751*** (0.0203)
<i>CSR event</i>	0.3152*** (0.0656)	0.3013*** (0.0656)	0.2743*** (0.0649)
<i>KMT connection</i>	0.1479† (0.0844)	0.1757† (0.1000)	0.0624 (0.1032)
<i>Post event</i>	-0.0128 (0.0956)	0.0145 (0.1001)	-0.0039 (0.1028)
<b><i>KMT connection</i> × <i>Post event</i></b>	<b>0.3623*** (0.0986)</b>	0.2433* (0.1179)	0.2424* (0.1224)
<i>Taipei firm</i>		-0.0144 (0.0924)	
<i>KMT connection</i> × <i>Taipei firm</i>		0.0408 (0.1826)	
<i>Post event</i> × <i>Taipei firm</i>		-0.0817 (0.1076)	
<b><i>KMT connection</i> × <i>Post event</i> × <i>Taipei firm</i></b>		<b>0.3951† (0.2164)</b>	
<i>B2C</i>			-0.0879 (0.0832)
<i>KMT connection</i> × <i>B2C</i>			0.3603* (0.1729)
<i>Post event</i> × <i>B2C</i>			0.0257 (0.0981)
<b><i>KMT connection</i> × <i>Post event</i> × <i>B2C</i></b>			<b>0.3638† (0.2074)</b>
Year fixed effects	YES	YES	YES
Quarter fixed effects	YES	YES	YES
Industry fixed effects	YES	YES	NO
City fixed effects	YES	NO	YES
Control type fixed effects	YES	YES	YES
Constant	-2.1780*** (0.6333)	-1.9667*** (0.5942)	-1.4394** (0.4646)
Observations	11,449	11,449	11,449
R-squared	0.050	0.045	0.046

*Note.* Stand errors are in parentheses † $p < .10$  \*  $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

**Table A5.** Estimates from Year-on-Year OLS Regression

VARIABLES	1st quarters			2nd quarters			3rd quarters			4th quarters		
	Model 22	Model 23	Model 24	Model 25	Model 26	Model 27	Model 28	Model 29	Model 30	Model 31	Model 32	Model 33
<i>Firm age</i>	0.0028 (0.0043)	0.0019 (0.0043)	-0.0004 (0.0038)	-0.0031 (0.0026)	-0.0029 (0.0026)	-0.0040† (0.0023)	0.0039 (0.0029)	0.0035 (0.0029)	0.0022 (0.0026)	0.0152*** (0.0037)	0.0146*** (0.0037)	0.0119*** (0.0033)
<i>Asset</i>	0.1742* (0.0759)	0.1451† (0.0756)	0.1291† (0.0676)	0.0754† (0.0440)	0.0927* (0.0436)	0.0922* (0.0399)	0.0250 (0.0511)	0.0324 (0.0509)	0.0575 (0.0459)	0.2644*** (0.0630)	0.2526*** (0.0624)	0.2537*** (0.0582)
<i>Revenue</i>	0.0382 (0.0619)	0.0446 (0.0618)	0.0099 (0.0535)	0.0200 (0.0378)	0.0093 (0.0377)	-0.0342 (0.0336)	0.0229 (0.0404)	0.0167 (0.0404)	-0.0228 (0.0353)	-0.0338 (0.0508)	-0.0346 (0.0505)	-0.0694 (0.0474)
<i>ROA</i>	-0.0205 (0.0215)	-0.0179 (0.0213)	-0.0155 (0.0209)	0.0017 (0.0104)	0.0053 (0.0104)	0.0044 (0.0102)	0.0098 (0.0100)	0.0098 (0.0100)	0.0140 (0.0098)	-0.0029 (0.0088)	-0.0037 (0.0088)	-0.0020 (0.0087)
<i>Leverage</i>	-0.0012 (0.0034)	-0.0010 (0.0034)	0.0012 (0.0032)	-0.0007 (0.0020)	-0.0010 (0.0020)	0.0015 (0.0019)	0.0003 (0.0023)	-0.0000 (0.0023)	0.0017 (0.0022)	0.0007 (0.0024)	0.0007 (0.0024)	0.0017 (0.0023)
<i>R&amp;D intensity</i>	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0002 (0.0002)	-0.0002 (0.0002)	-0.0002 (0.0002)	-0.0000 (0.0001)	-0.0000 (0.0001)	-0.0000 (0.0001)	-0.0000 (0.0001)	-0.0000 (0.0001)	-0.0000 (0.0001)
<i>Tax rate</i>	-0.0004 (0.0032)	-0.0013 (0.0032)	0.0002 (0.0032)	-0.0007 (0.0016)	-0.0006 (0.0016)	-0.0008 (0.0016)	-0.0046* (0.0023)	-0.0045* (0.0023)	-0.0049* (0.0023)	-0.0046† (0.0026)	-0.0050† (0.0026)	-0.0045† (0.0026)
<i>Mainland investment</i>	-0.0066 (0.1378)	-0.0227 (0.1369)	-0.0417 (0.1347)	-0.0503 (0.1577)	-0.0774 (0.1566)	-0.0797 (0.1503)	-0.0037 (0.0288)	-0.0051 (0.0290)	-0.0030 (0.0290)	-0.4608* (0.2144)	-0.4955* (0.2129)	-0.5646** (0.2049)
<i>Export ratio</i>	0.0010 (0.0015)	0.0007 (0.0015)	0.0005 (0.0013)	0.0003 (0.0009)	0.0003 (0.0009)	-0.0004 (0.0008)	0.0004 (0.0011)	0.0006 (0.0011)	-0.0005 (0.0009)	0.0002 (0.0013)	0.0008 (0.0013)	-0.0007 (0.0011)
<i>Government ownership</i>	-0.0271 (0.0194)	-0.0263 (0.0193)	-0.0398* (0.0178)	-0.0170† (0.0099)	-0.0189† (0.0098)	-0.0199* (0.0092)	-0.0099 (0.0113)	-0.0102 (0.0113)	-0.0112 (0.0103)	-0.0215 (0.0144)	-0.0154 (0.0144)	-0.0232† (0.0134)
<i>Foreign ownership</i>	0.0036 (0.0035)	0.0040 (0.0035)	0.0052 (0.0034)	-0.0000 (0.0021)	-0.0005 (0.0021)	0.0003 (0.0021)	0.0021 (0.0024)	0.0015 (0.0024)	0.0016 (0.0023)	0.0040 (0.0030)	0.0039 (0.0030)	0.0046 (0.0030)
<i>Credit risk</i>	-0.0827† (0.0492)	-0.0913† (0.0489)	-0.0980* (0.0474)	-0.0001 (0.0274)	0.0046 (0.0274)	-0.0095 (0.0265)	-0.0143 (0.0323)	-0.0158 (0.0323)	-0.0131 (0.0313)	-0.1211** (0.0382)	-0.1197** (0.0382)	-0.1366*** (0.0371)
<i>CSR event</i>	0.2338 (0.1840)	0.2375 (0.1834)	0.1412 (0.1797)	0.5876*** (0.1132)	0.5600*** (0.1130)	0.5644*** (0.1124)	0.3704*** (0.1012)	0.3508*** (0.1015)	0.2800** (0.0979)	0.0958 (0.1018)	0.0731 (0.1015)	0.1300 (0.1007)
<i>KMT connection</i>	0.0042 (0.1473)	-0.1154 (0.1731)	-0.0578 (0.1789)	0.0732 (0.0995)	0.1163 (0.1177)	0.0634 (0.1207)	0.1084 (0.1112)	0.1567 (0.1322)	0.0682 (0.1360)	0.0271 (0.1433)	0.1570 (0.1694)	-0.0253 (0.1735)
<i>Post event</i>	0.3986** (0.1305)	0.4290** (0.1438)	0.5964*** (0.1521)	-0.0002 (0.0867)	-0.0266 (0.0941)	-0.0101 (0.0984)	0.0785 (0.0986)	0.1225 (0.1079)	0.0795 (0.1136)	-0.0286 (0.1252)	0.0054 (0.1354)	-0.0456 (0.1419)
<b><i>KMT connection× Post event</i></b>	<b>0.6679*** (0.1948)</b>	0.5839* (0.2325)	0.3174 (0.2419)	<b>0.4564*** (0.1230)</b>	0.5302*** (0.1472)	0.3314* (0.1521)	<b>0.4727*** (0.1368)</b>	0.3118† (0.1644)	0.4219* (0.1709)	<b>0.4307* (0.1778)</b>	0.0690 (0.2122)	0.1787 (0.2198)
<i>Taipei firm</i>		-0.0709 (0.1637)			-0.1429 (0.1084)			-0.0066 (0.1237)			0.1181 (0.1545)	
<i>KMT connection× Taipei firm</i>		0.5504† (0.3130)			-0.0804 (0.2149)			-0.0376 (0.2389)			-0.2802 (0.3092)	
<i>Post event×Taipei firm</i>		-0.0824 (0.2154)			0.0922 (0.1335)			-0.1520 (0.1515)			-0.1054 (0.1919)	
<b><i>KMT connection× Post event×Taipei firm</i></b>		<b>0.2932 (0.4255)</b>			<b>-0.2611 (0.2705)</b>			<b>0.5334† (0.3001)</b>			<b>1.1943** (0.3905)</b>	

<i>B2C</i>			0.0046			-0.1034			-0.0375			-0.0373
			(0.1458)			(0.0970)			(0.1117)			(0.1392)
<i>KMT connection</i> × <i>B2C</i>			0.3070			0.1333			0.2361			0.2381
			(0.2929)			(0.2034)			(0.2266)			(0.2932)
<i>Post event</i> × <i>B2C</i>			-0.4454*			0.0381			0.0285			0.1027
			(0.1966)			(0.1214)			(0.1388)			(0.1751)
<b><i>KMT connection</i>× <i>Post event</i>×<i>B2C</i></b>			<b>0.9698*</b>			<b>0.3721</b>			<b>0.1370</b>			<b>0.7526*</b>
			<b>(0.4073)</b>			<b>(0.2594)</b>			<b>(0.2886)</b>			<b>(0.3756)</b>
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Quarter fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	NO	YES	YES	NO	YES	YES	NO	YES	YES	NO
City fixed effects	YES	NO	YES	YES	NO	YES	YES	NO	YES	YES	NO	YES
Control type fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Constant	-3.1121*	-2.4941†	-1.7204†	-1.7391*	-1.7118*	-0.8905	0.3289	0.4890	-0.6622	-3.6291**	-3.5158**	-2.2245**
	(1.3726)	(1.2998)	(1.0102)	(0.8174)	(0.7645)	(0.5857)	(0.9277)	(0.8799)	(0.6870)	(1.1806)	(1.0981)	(0.8484)
Observations	2,629	2,629	2,629	3,702	3,702	3,702	3,344	3,344	3,344	3,742	3,742	3,742
R-squared	0.076	0.073	0.072	0.055	0.047	0.047	0.064	0.051	0.047	0.078	0.073	0.069

*Note.* Stand errors are in parentheses † $p < .10$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

**Table A6.** Additional Test of Alternative Explanation

VARIABLES	KMT-only vs. Without connection			Dual connection vs. KMT-only		
	Model 34	Model 35	Model 36	Model 37	Model 38	Model 39
<i>Firm age</i>	0.0045* (0.0018)	0.0043* (0.0018)	0.0022 (0.0016)	0.0018 (0.0128)	0.0038 (0.0109)	-0.0185* (0.0094)
<i>Asset</i>	0.1264*** (0.0315)	0.1150*** (0.0309)	0.1053*** (0.0288)	0.1209 (0.1753)	0.1444 (0.1678)	0.2379 (0.1535)
<i>Revenue</i>	-0.0113 (0.0250)	-0.0097 (0.0248)	-0.0259 (0.0225)	-0.0552 (0.1154)	-0.0794 (0.1129)	-0.0227 (0.0988)
<i>ROA</i>	-0.0033 (0.0054)	-0.0044 (0.0054)	-0.0030 (0.0054)	0.0137 (0.0393)	0.0071 (0.0380)	-0.0065 (0.0376)
<i>Leverage</i>	0.0006 (0.0013)	0.0007 (0.0013)	0.0018 (0.0012)	-0.0005 (0.0093)	-0.0001 (0.0088)	0.0027 (0.0074)
<i>R&amp;D intensity</i>	-0.0001* (0.0000)	-0.0001* (0.0000)	-0.0001 (0.0000)	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)
<i>Tax rate</i>	-0.0013 (0.0013)	-0.0015 (0.0013)	-0.0012 (0.0013)	-0.0059 (0.0077)	-0.0061 (0.0076)	-0.0054 (0.0077)
<i>Mainland investment</i>	-0.0196 (0.0303)	-0.0158 (0.0303)	-0.0297 (0.0302)	-0.0188 (0.0642)	-0.0133 (0.0642)	-0.0036 (0.0649)
<i>Export ratio</i>	-0.0005 (0.0006)	-0.0004 (0.0006)	-0.0007 (0.0005)	0.0020 (0.0047)	0.0028 (0.0041)	-0.0030 (0.0034)
<i>Government ownership</i>	-0.0265*** (0.0068)	-0.0247*** (0.0067)	-0.0302*** (0.0061)	-0.0136 (0.0322)	-0.0040 (0.0299)	-0.0140 (0.0277)
<i>Foreign ownership</i>	0.0021 (0.0014)	0.0022 (0.0014)	0.0020 (0.0013)	0.0338** (0.0106)	0.0264** (0.0097)	0.0215* (0.0091)
<i>Credit risk</i>	-0.0588** (0.0192)	-0.0604** (0.0191)	-0.0727*** (0.0185)	-0.0654 (0.1355)	-0.1217 (0.1289)	0.0644 (0.1141)
<i>CSR event</i>	0.2516*** (0.0641)	0.2499*** (0.0639)	0.2272*** (0.0632)	0.8047** (0.2935)	0.8395** (0.2942)	0.7422* (0.2934)
<i>KMT-only</i>	0.3567*** (0.0832)	0.3435** (0.1049)	0.2685** (0.1004)			
<i>Post event</i>	-0.1903† (0.1035)	-0.1788† (0.1061)	-0.1804† (0.1084)	-0.8886 (0.5408)	-1.0400† (0.5647)	-0.9764† (0.5686)
<b><i>KMT-only×Post event</i></b>	<b>0.5658*** (0.1048)</b>	0.4048** (0.1355)	0.4155** (0.1301)			
<i>Taipei firm</i>		-0.0745 (0.0671)			0.1784 (0.3493)	
<i>KMT-only×Taipei firm</i>		0.1228 (0.1636)				
<i>Post event×Taipei firm</i>		-0.0368 (0.0853)			0.3594 (0.4000)	
<b><i>KMT-only×Post event×Taipei firm</i></b>		<b>0.3952† (0.2155)</b>				
<i>B2C</i>			-0.0667 (0.0599)			0.2412 (0.3364)
<i>KMT-only×B2C</i>			0.3229† (0.1650)			
<i>Post event×B2C</i>			-0.0248 (0.0774)			0.2467 (0.4194)
<b><i>KMT-only×Post event×B2C</i></b>			<b>0.4252† (0.2202)</b>			
<i>Dual connection</i>				-0.2809 (0.6666)	-0.3294 (0.9472)	-0.1142 (0.8642)
<b><i>Dual connection×Post event</i></b>				<b>-0.2151 (0.7706)</b>	-1.4538 (1.1738)	-1.1901 (0.9808)
<i>Dual connection×Taipei firm</i>					-0.1465 (1.2561)	
<b><i>Dual connection×Post event×Taipei firm</i></b>					<b>2.0437 (1.5617)</b>	
<i>Dual connection×B2C</i>						-0.4914 (1.3789)
<b><i>Dual connection×Post event×B2C</i></b>						<b>2.6341 (1.6267)</b>

Year fixed effects	YES	YES	YES	YES	YES	YES
Quarter fixed effects	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	NO	YES	YES	NO
City fixed effects	YES	NO	YES	YES	NO	YES
Control type fixed effects	YES	YES	YES	YES	YES	YES
Constant	-1.5138*	-1.1799*	-0.6152	-1.3208	-0.5384	-2.3215
	(0.5963)	(0.5130)	(0.4709)	(2.8179)	(2.6730)	(2.1391)
Observations	11,254	11,254	11,254	1,484	1,484	1,484
R-squared	0.057	0.056	0.052	0.126	0.120	0.086

*Note.* Stand errors are in parentheses † $p < .10$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

**Table A7.** Additional Analysis of Underlying Mechanism

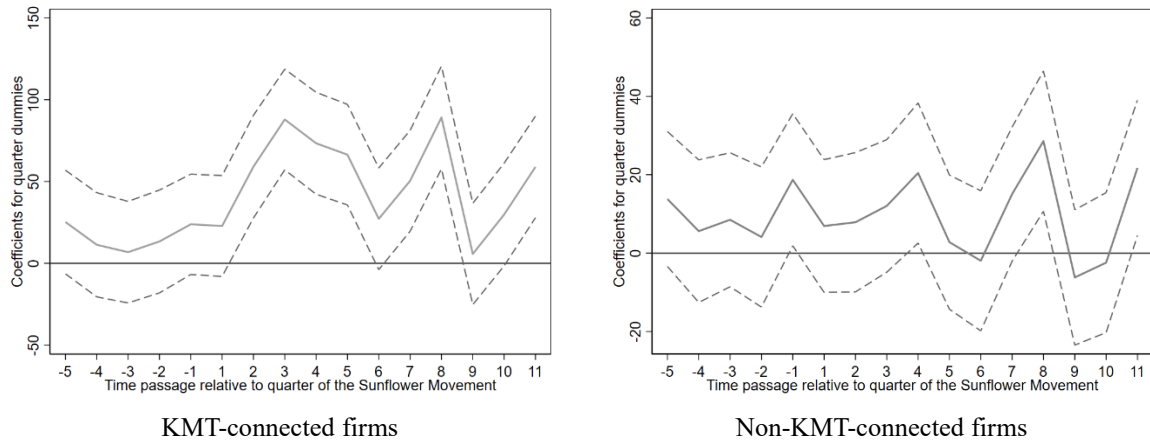
VARIABLES	Full sample		Without connection		KMT-connected	
	Pre event Model 40	Post event Model 43	Pre event Model 41	Post event Model 44	Pre event Model 42	Post event Model 45
Firm age	0.0825 (0.0749)	-0.0885 (0.1723)	0.0114 (0.0704)	-0.0442 (0.2296)	0.2839 (0.2460)	-0.0173 (0.2443)
Asset	-4.2580*** (1.2494)	-7.2529* (2.9360)	-4.8357*** (1.1622)	-7.4228† (3.9439)	-4.4039 (4.0425)	-9.8820* (4.2722)
Revenue	6.3693*** (1.0774)	7.3589** (2.3513)	7.0469*** (1.0246)	6.0591† (3.2457)	6.7576* (3.1454)	12.3632*** (3.0787)
ROA	1.1698*** (0.2232)	0.7762 (0.5830)	0.8730*** (0.1884)	0.6440 (0.6794)	2.7081** (0.9237)	1.6329 (1.2598)
Leverage	-0.2258*** (0.0593)	-0.1105 (0.1222)	-0.2996*** (0.0535)	0.0234 (0.1468)	0.0675 (0.2057)	-0.5427* (0.2242)
R&D intensity	0.0166 (0.0124)	0.0030 (0.0035)	0.0259 (0.0187)	0.0283 (0.0517)	0.0216 (0.0233)	0.0036 (0.0027)
Tax rate	-0.0241 (0.0515)	-0.1132 (0.1224)	0.0232 (0.0451)	-0.1243 (0.1518)	-0.1941 (0.1724)	-0.1081 (0.1791)
Mainland investment	0.1583 (0.9055)	-0.0035 (9.8007)	0.1571 (2.4603)	0.5826 (11.4438)	0.5430 (1.4848)	20.1788 (21.5657)
Export ratio	-0.0149 (0.0261)	-0.0450 (0.0633)	-0.0270 (0.0236)	-0.0604 (0.0812)	0.0621 (0.0994)	-0.0420 (0.1064)
Government ownership	0.0922 (0.2562)	0.1782 (0.7665)	0.0514 (0.2608)	-0.6992 (1.3889)	0.3211 (0.8790)	0.4667 (0.8918)
Foreign ownership	-0.0047 (0.0616)	-0.0389 (0.1407)	0.0174 (0.0531)	-0.0564 (0.1717)	-0.2854 (0.2594)	0.1480 (0.2619)
Credit risk	4.2783*** (0.8234)	4.4132* (1.8291)	4.3049*** (0.7475)	3.1544 (2.2593)	5.6099* (2.7414)	11.4238*** (3.0009)
CSR event	-1.1253 (2.4072)	-3.3271 (6.2460)	-0.7348 (2.0514)	-0.7460 (7.8526)	-2.2060 (8.8044)	-11.1065 (8.9444)
<b>Philanthropic giving</b>	<b>-0.1638</b> <b>(0.4819)</b>	<b>1.8886*</b> <b>(0.7916)</b>	<b>0.1154</b> <b>(0.5302)</b>	<b>-0.4639</b> <b>(1.4094)</b>	<b>-0.7599</b> <b>(1.0758)</b>	<b>3.4056***</b> <b>(0.7045)</b>
Year fixed effects	YES	YES	YES	YES	YES	YES
Quarter fixed effects	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES	YES	YES

City fixed effects	YES	YES	YES	YES	YES	YES
Control type fixed effects	YES	YES	YES	YES	YES	YES
Constant	-38.9790† (23.4346)	-10.5421 (55.4338)	-39.7407† (23.3393)	14.2350 (76.3930)	-28.6609 (69.5124)	-69.5923 (76.2124)
Observations	5,534	7,883	4,229	6,005	1,305	1,878
R-squared	0.047	0.015	0.058	0.016	0.060	0.044

*Note.* Stand errors are in parentheses † $p < .10$  \*  $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

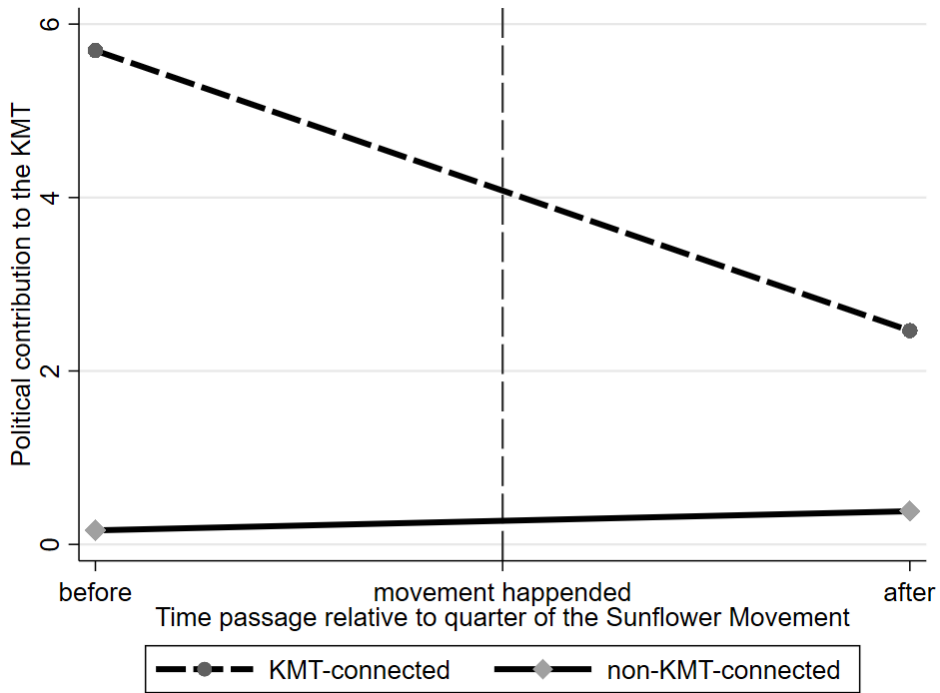


**Figure A1.** Time Trends of Coefficients of the Treatment Group and Control Group for Quarter Dummies



*Note.* Quarter 0 represent the first quarter of 2014 when the Sunflower Movement happened, which is the baseline of our analysis. Following Moser and Voena (2012), we dropped this period from the figure.

**Figure A2.** The Changes of Political Contribution to the KMT



*Note.* “Before” represents the 7<sup>th</sup> legislative election in Taiwan which happened in 2012 and “after” represents the 8<sup>th</sup> legislative election in Taiwan which happened in 2016.