# CSR as Hedging Against Institutional Transition Risk: Corporate Philanthropy After the Sunflower Movement in Taiwan\*

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#### **Abstract**

Firms with political connections to a regime with an authoritarian history face a dilemma when the regime undergoes a democratic transition. Such connections provide an essential competitive advantage when the regime is in power but become a liability when an institutional transition brings democratic change. This study theorizes that when mass protests expose a regime's distorted policies favoring elites over others and signal a high probability of regime turnover, firms may hedge against the risks associated with their political connections by engaging in philanthropy. We further contend that this effect is stronger for firms located in regions characterized by the rise of an opposing political party or a strong civil society. We find support for our theory in Taiwan's 2014 Sunflower Movement. Our article reveals a strategy that firms adopt to survive democratic transitions and thus contributes to research on how firms use non-market strategies to adapt to institutional changes. Our research also shows that strategic corporate social responsibility (CSR) can substitute for corporate political activity or compensate for its limitations, and it expands research on the signaling function of social movements from public to private politics.

**Keywords:** corporate social responsibility, philanthropic donation, corporate political action, political connection, mass protest, institutional transition

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The shift from elite politics to mass politics characterizes the modern world. From 1950 to 2021, the number of countries classified as closed autocracies decreased from 104 to 28, while the number of democratic countries increased from 25 to 89 (Herre et al., 2022). As democratization has swept the world, hundreds of millions of people who once lived under authoritarian regimes have obtained greater freedom and shared opportunities. In almost all these transitions, anti-government mass protests have played a critical role in facilitating changes—tens of thousands of people have been mobilized into peaceful marches and violent confrontations, expressing their dissatisfaction with incumbent regimes and their policies. Even if such protests do not directly lead to the collapse of a regime, protestors speaking out against political corruption, economic inequality, and social injustice can uncover the regime's previously unaccounted-for dark reign and signal that it may not be in power for long.

In this study, we argue that anti-government mass protests in transitional democracies expose the incumbent regime's collusive past, signal regime instability, and prompt firms connected to the incumbent regime to hedge against the associated transitional risks. Political economy researchers have observed that democratic transitions pose a dilemma to politically connected firms. Transitional democracies often retain some authoritarian features, such as deeply intertwined political-business relationships; therefore, adopting a relational posture toward the government is an essential strategy for firms seeking competitive advantages (Peng and Luo, 2000; Leuz and Oberholzer-Gee, 2006; Sun, Mellahi, and Wright, 2012). However, the benefits of such political embeddedness can become a liability once democratization has eroded the power and authority of the old government. After a regime change, politically connected firms can suffer rapid drops in their stock returns (Fisman, 2001; Acemoglu, Hassan, and Tahoun, 2018), a decline in their long-term performance (Leuz and Oberholzer-Gee, 2006), a reduction in market opportunities (Siegel, 2007), and even looting (Darendeli and Hill, 2016). Faced with these high stakes, firms may monitor the signals of transitional risk and hedge against it before the government to which they are tied loses power. Doing so is important because the process of democratic transition does not always go smoothly and may experience setbacks, which can present an intricate challenge to firms: On the one hand, the former authoritarian regime may retain some influence and could potentially regain dominance; on the other hand, the rising opposition party may consolidate power amid the incomplete transition by prosecuting firms connected to the former regime. Recent studies have found that politically connected firms do not fare equally well during democratic transitions, as some suffer severe losses while others survive relatively unscathed (Darendeli and Hill, 2016). Thus, it is important to investigate the strategies that firms adopt before regime turnover to hedge against the risk of political connections.

Studies have examined two main strategies that firms use to manage the risk of political connections: cutting ties with contaminated government officials (e.g., Jiang et al., 2021) and developing a diversified set of ties with both incumbent officials and their political rivals (e.g., Zhu and Chung, 2014). However, implementing these strategies before regime turnover may not be feasible, as cutting ties with the incumbent regime while it is still in power can result in severe retaliation against firms (Moran, 2005; Nalick et al., 2020), and these firms cannot easily gain acceptance by incoming

politicians in order to build new ties. Firms embedded within the old regime's networks often carry the stigma of being authoritarian relics and may be shunned by politicians concerned about their future careers (Shain, 2010; Jiang et al., 2021). Making changes to political networks also takes time, so firms may miss the opportunity to hedge against the imminent risk posed by a democratic transition.

We argue that corporate philanthropy is a feasible strategy for hedging against the risk associated with political connections to the incumbent regime during a democratic transition (cf. Jeong and Siegel, 2025). The hallmark of democratic transition is the transfer of power away from a small number of elite politicians and the emergence of a more pluralistic system in which the public has a stronger voice in politics and policymaking. Anti-government mass protests can expose the incumbent regime's past collusion and predict its future collapse, so they can signal transitional risks to politically connected firms. These connected firms are prone to have colluded with and illegitimately profited from their political and economic circle and thus are at risk of being penalized when the incumbent regime's rivals come to power. Therefore, connected firms may use corporate philanthropy to increase their social legitimacy (Godfrey, 2005; Luo, Kaul, and Seo, 2018) and gain public support as insurance against transitional risks. As the influence of the public will be greater in a more democratic system, the new regime is likely to treat connected firms with greater social legitimacy more leniently. In addition, incumbent rulers are less likely to object to corporate philanthropy and they may even appreciate its role in mitigating public dissatisfaction. Corporate philanthropy is also directly under a firm's control and can be adopted promptly. Therefore, we posit that firms connected with an incumbent regime are likely to respond to anti-government mass protests that signal transitional risks by increasing their philanthropic activities, such as donating to public-welfare causes. We then examine regional variations in a democratic transition. We expect corporate philanthropy to be more likely for firms located in regions where an opposing political party is emerging or where civil society is stronger, as these factors indicate a higher democratization level and, consequently, greater transitional risks to firms.

To test our proposition, we examine the 2014 Sunflower Movement against the Kuomintang (KMT) government in Taiwan. It offers an ideal context to study how politically connected firms adapt to a democratic transition. The Sunflower Movement was a mass protest against the KMT government, Taiwan's long-serving authoritarian regime that had survived democratic reform for several decades. Starting in the late 1980s, Taiwan experienced a relatively peaceful transition away from a single-party system. In 2000, the KMT temporarily lost its status as the ruling party, as Taiwan elected a president from the Democratic Progressive Party (DPP), who held power for eight years. The KMT returned to power after that, and at the time of the Sunflower Movement, Taiwan's democratic transition was still incomplete. In the 1990s, under sustained protests from local pro-democracy activists and mounting international pressure, KMT elites engineered a democratic transition. While they relinquished certain aspects of their authoritarian rule, they retained significant influence through elite networks and legislative dominance, consistently holding the majority in the legislature until 2016. Prior collusive practices under the KMT government had not been morally or legally accounted for, and many connections between the KMT and businesses remained (Hioe, 2016).

Taiwan was listed eighth in *The Economist*'s 2014 "crony capitalism" index, out of the 23 countries and regions for which it had reliable data. The Sunflower Movement erupted because students and others were protesting against the KMT's undemocratic implementation of the controversial Cross-Strait Service Trade Agreement (CSSTA), which was regarded as benefiting large firms at the expense of workers and small businesses. The movement was referred to as "the biggest pro-democracy protest in the island's history," which "exposed the worst of the KMT" (Rowen, 2015: 5). It precipitated the KMT's overwhelming defeat to the DPP in both the presidential and legislative elections two years later.

Our analysis revealed that KMT-connected firms increased their donations to social causes in the time between the Sunflower Movement and the subsequent regime turnover. We further learned that these donations were made to support public-welfare causes rather than to support the movement's opponents or to organizations linked to the KMT or its political rival, the DPP. We found that after the Sunflower Movement, KMT-connected firms did not significantly cut their ties with the KMT government or build new ties with the DPP, which is consistent with our assumptions.

#### Theory

#### **Risk of Political Connections in Democratic Transitions**

In 1979, Imelda Marcos, wife of the former Filipino dictator Ferdinand Marcos, was asked why companies founded by their relatives and friends had been so successful. She infamously replied that "some are smarter than others" (Branigin, 1984). However, subsequent events proved that the smartness of having developed close ties with the autocratic government was short-lived. When the People Power Revolution, which consisted of a series of democracy-restoring mass protests, ousted Marcos in 1986, most of these companies failed immediately. Many were taken over by the state because they were unable to repay loans that had been guaranteed by the government (Seagrave, 2017). The dramatic rise and fall of Marcos's cronies epitomizes the dilemma of firms with close political connections to a deposed authoritarian regime in a transitional context: Such ties can enable firms to reap handsome profits but can also be a curse once the regime to which they are connected falls from power.

Democratic transition is the process of moving away from an authoritarian system in which power is concentrated in the hands of a leader or a small elite group (Huntington, 1993). This is usually a lengthy process, as it takes time to mobilize citizens, remove the residuals of authoritarian power, and develop a fully democratic system. Even after a country implements elections to select political leaders, authoritarian relics can retain a disproportionate amount of influence (e.g., Huntington, 1993; Acemoglu and Robinson, 2008).

The path to democracy can be particularly prolonged in countries and regions that have experienced peaceful transitions. Such transitions are often deliberately engineered by authoritarian elites as compromises or result from elites' negotiations with democratic forces, allowing regimes to avoid complete overthrow (Stradiotto and Guo, 2010). The resulting governments may reflect a combination of authoritarian and democratic features (Diamond, 1994). Although an electoral system that helps to ensure a more inclusive process may have been established, grassroots actors may find it

difficult to make their voices heard or their rights protected (Dudouet and Pinckney, 2021). Money still plays a major role in the politics of newly democratized regions, such as in South Korea, Indonesia, or Taiwan, albeit to a lesser degree than under previous authoritarian regimes (Siegel, 2007; Mahmood, Chung, and Mitchell, 2017; Martinez-Bravo, Mukherjee, and Stegmann, 2017).

In the process of a democratic transition, social groups that do not receive expected benefits from institutions can be incentivized to initiate social movements that challenge the status quo (Tilly, 1978; Acemoglu and Robinson, 2006). By taking to the streets and chanting anti-regime slogans, protestors can publicly reveal a regime's distorted policies that may favor connected elites, and protestors can mobilize citizens to disrupt the regime collectively. Even if mass protests do not immediately depose political rulers, they reveal the "precarious economic and political situation" and "hidden information about the viability of the regime" (Lohmann, 1994: 94). Exposing the problematic aspects of the incumbent government reminds the population that the project of democratization is unfinished, and such exposure rekindles their grievances regarding unaddressed crimes and collusion that occurred during the authoritarian era. By drawing attention to the legitimacy deficits of the incumbent government and its affiliates, mass protests can encourage the public to press for further actions, such as setting up truth tribunals and making reparation payments.

Mass protests also signal that the foundation of the incumbent regime is shaky. Firms connected to a regime cannot benefit from it if it loses power. These connections can also become liabilities if firms are perceived to have obtained assets or profits illegitimately, and connected firms may then be penalized by the new government (Leuz and Oberholzer-Gee, 2006; Bucheli and Salvaj, 2013; Darendeli and Hill, 2016). For example, firms in Indonesia that were connected to the Suharto regime found that their market value plummeted when the autocrat's health deteriorated (Fisman, 2001), and they suffered a long-term decline in performance after his regime collapsed (Leuz and Oberholzer-Gee, 2006). Similarly, in South Korea's democratic transition process, firms connected to the old government lost market opportunities once the new government came to power (Siegel, 2007). Mass protests signal such transitional risks to politically connected firms. Firms that have colluded with the old government will typically be penalized when their protectors lose power, as a new political regime is likely to challenge such firms. By doing so, the new regime seeks to cultivate popularity at the grassroots level. Accordingly, we argue that firms will closely heed anti-regime mass protests and prepare to hedge against the transitional risk.

## Hedging the Risk of Political Connections Through Philanthropy

Cutting ties with a threatened regime and building new ties with its political rivals represent the two main strategies for organizations such as firms to manage the risk of political connections. Scholars have reported that if an organization's reputation is compromised, other organizations connected to it will respond by exiting the interconnected circle (e.g., McDonnell, Odziemkowska, and Pontikes, 2021). However, this finding is based on studies of protests that targeted corporations. Disconnecting from relatively distant corporations is far easier than untangling a political relationship with an incumbent government. Jiang et al. (2021) reported that firms cut ties with government officials who have been convicted of corruption. However, their research focused on a regime's own (self-

promoting) anti-corruption campaign, a relatively stable institutional context in which cutting ties with corrupt officials aligns with the incumbent government's policy and therefore does not lead to retaliation. In contrast, during a democratic transition, cutting ties with the incumbent regime while it is still in power can provoke severe retaliation and lead to the forfeiture of accrued political rents (Moran, 2005; Nalick et al., 2020).

Building new ties with the incumbent government's political rivals can also be problematic if the government still holds power (Zhu and Chung, 2014), as doing so runs the risk of retaliation or "detachment" (Moran, 2005; Nalick et al., 2020: 1977). A firm's decision to switch sides leads not only to incumbent elites' loss of trust in that firm but also to further damage if the regime survives its current crisis. Building new ties may also be beyond a firm's control, as it requires the approval of the targeted party. Firms derive their political identities from their social networks, and those that are deeply embedded within the network of one political clique can find it difficult to establish other relationships outside of it (Siegel, 2007; Sun et al., 2015). Even if firms can eventually change their political networks, doing so takes time and thus may not be useful if they need to hedge against the imminent risk posed by a democratic transition.

We argue that the prosocial pathway of making philanthropic donations to public-welfare causes is a feasible strategy for politically connected firms to hedge against the risk of regime turnover in democratic transitions. CSR research has shown that donations to charitable causes help firms build a positive corporate image and consolidate stakeholders' approval (Ingram, Yue, and Rao, 2010; Luo, Kaul, and Seo, 2018), which, in turn, increases employee commitment (Burbano, 2016; Flammer and Luo, 2017), consumer loyalty (Brown and Dacin, 1997; Sen and Bhattacharya, 2001), and participation in public policymaking (Werner, 2015; Flammer, 2018). CSR has, therefore, been regarded as a form of insurance against potential risks (Godfrey, Merrill, and Hansen, 2009; Luo, Kaul, and Seo, 2018). Philanthropic donations to public-welfare causes can be particularly useful for managing the political risk associated with democratic transitions because the democratic transition process is characterized by a power shift toward a political system in which elected representatives govern. Firms can generate goodwill by directly contributing to social causes that benefit the public. Taking this action can mitigate punitive sanctions from a new government, which is likely to be responsive to public opinion. Unlike political actors bound by ideological beliefs, the public can be more easily swayed. In addition to moderating the government's actions, the public can directly support firms by providing resources, talent, patronage, and even protection. In their study of eight Turkish construction companies in Libya, Darendeli and Hill (2016) found that, unlike firms that worked on elite private projects, firms working on public projects before the Qadhafi regime collapsed were protected by the public from being looted during the turmoil of the Arab Spring. Similarly, Gatignon, Gama, and DeMello (2023) found that when multiple police raids in Brazil in 2014 signaled a transition from legal capture

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<sup>&</sup>lt;sup>1</sup> It is crucial to recognize that in transitional democracies, corporate philanthropy's risk-hedging function differs from the constituency-building function typical of Western firms (e.g., Hillman and Hitt, 1999; Yue, 2015; Wen, Walker, and Yue, 2024). While both strategies involve grassroots influences, constituency-building aims to use the public as an intermediary to sway incumbent politicians, particularly legislators, to secure favorable regulations. Conversely, the risk-hedging function focuses on appearing the public to reduce risks during democratic transitions, particularly under the threat of regime change.

(corruption) to legal compliance, the social strategy of donating to the public was more valuable than was the political strategy of maintaining direct connections with the government.

As a concrete, visible demonstration of a firm's commitment to society, corporate philanthropy has two main advantages as a risk-hedging strategy for politically connected firms. First, charitable donations are directly under a firm's control and can be made at any time, unlike strategic adjustments to sociopolitical ties. Second, charitable donations do not alienate the incumbent regime. Corporate philanthropy can be interpreted as a form of social redistribution from higher to lower economic groups. It thus helps mitigate the dissatisfaction of underprivileged people, who may not benefit from the incumbent regime's institutional arrangements. Therefore, we posit that in response to anti-regime mass protests that signal the risk of associating with the incumbent regime, politically connected firms are likely to increase their philanthropic donations to public causes more than non-politically connected firms.

**Hypothesis 1 (H1):** During democratic transitions, firms connected to an incumbent regime with an authoritarian history will increase their philanthropic donations in response to antiregime mass protests more than will similar firms without such connections.

## **Regional Variation in Democratic Transition**

Democratic transition often unfolds unevenly across regions, resulting in local variations. Dahl (1971: 12) stated that "opportunities available for participation and contestation within a country surely require one to say something about the opportunities available within subnational units." Regional variations in democratization have been observed in India, Latin America, and post-Soviet countries (e.g., Lankina and Getachew, 2006; Giraudy, 2015; Harbers, Bartman, and van Wingerden, 2019). These can result from either regional holdouts of the old elite or sub-regime changes during the transition. Political contestation by opposition parties in local elections and public participation through a strong civil society are the main forces that shape regional democratic transitions (Dahl, 1971).

In terms of political contestation, we propose that firms tied to the incumbent regime increase their philanthropic donations in regions where regime-affiliated candidates lose elections. Extensive political economy research has shown that local governments shape key political decisions and affect the political environment in which firms operate (e.g., Tiebout, 1956; Riker, 1964). Local politicians often interfere with or defy policies made by the central government, and sometimes they even leverage local forces to maneuver against such policies. A favorable local government can also effectively shield firms from the central government's political influence (Kozhikode and Li, 2012). Therefore, if a region is a stronghold of the regime, politically connected firms will be less motivated to make philanthropic donations because the favorable local environment will mitigate the perceived transitional risks. Conversely, if politicians affiliated with the incumbent party lose local control, connected firms face an especially adverse environment as the opposition may eventually control both local and central governments. Therefore, when affiliated local politicians lose control of a local government after an anti-regime mass protest, firms located in the region will increase their donations to hedge against the risk of having political connections.

**Hypothesis 2 (H2):** The relationship hypothesized in H1 is stronger for firms located in regions where the incumbent political elites lose control over the local government than for those in regions without such changes.

In terms of public participation, civic groups, such as those led by students, women, and environmental organizations, or other types of non-governmental organizations (NGOs) play important roles in promoting democratic values and institutionalizing participatory and transparent governance models. These groups can be viewed as organic components of effective democracies (Putnam, 2000; Tocqueville, 2002). NGOs call out the abuse of state power by encouraging broad citizen participation and pressing the state to act according to public interests. NGOs also monitor firms, for example, by conducting naming-and-shaming campaigns that highlight firms' previous unfair or harmful practices, which can damage their reputations (Minefee and Bucheli, 2021). Therefore, NGOs both encourage the government to address past injustices and directly determine firms' social legitimacy. Gatignon and colleagues (2023) reported that compared to political actors, NGOs had a greater effect on firms' abnormal returns in Brazil's recent institutional transition toward greater legal compliance. The prevalence of NGOs in a region thus indicates an increasing degree of social monitoring and a heightened risk for firms connected to the past authoritarian regime. Accordingly, we predict that politically connected firms located in regions with more NGOs will increase their philanthropic donations in response to anti-government mass protests that expose transitional risks.

**Hypothesis 3 (H3):** The relationship hypothesized in H1 is stronger for firms located in regions populated with more NGOs than for those in regions with fewer NGOs.

#### **Context**

#### Democratic Transition and the Sunflower Movement in Taiwan

Sunflowers symbolize sunshine and hope, and the 2014 Sunflower Movement was the largest antiregime mass protest in Taiwan's democratic transition. The protest targeted the KMT government's attempts to pass the Cross-Strait Service Trade Agreement (CSSTA), a controversial free-trade agreement with Mainland China. While CSSTA's advocates argued that it would bring the benefits of free trade, its opponents contended that the government's abbreviated legislative review of the agreement was undemocratic and that the treaty would benefit only large companies, not small and medium-sized companies. Its opponents were also concerned that economic integration with Mainland China would take away job opportunities and strengthen Beijing's political influence over Taiwan. The protest broke out on March 18, 2014, after the KMT government attempted to unilaterally force the passing of the CSSTA in the legislature without following a pre-agreed procedure of a clause-by-clause review. Protesting against the KMT's black-box operation, activists climbed over the fence of the parliament building, smashed its windows, and occupied the building. This was the first time in Taiwan's history that the legislature had been occupied. On March 30, hundreds of thousands of people marched in Taipei to support the protestors. The occupation lasted for 24 days and ended after the KMT government agreed to postpone the CSSTA review.

Although Taiwan had experienced a relatively peaceful democratic transition until that time, it had not yet entered a post-authoritarian era as of 2014. The KMT was Taiwan's authoritarian ruling party before its democratic transition, which began in 1987 when Chiang Ching-kuo lifted martial law after nearly four decades of repression. Democratic reforms expanded under Lee Teng-hui in the 1990s, leading to the first direct presidential election in 1996. Taiwan's first president from the rival DPP, Chen Shui-bian, was elected in 2000, after which the KMT's Ma Ying-jeou won the election in 2008. Despite these signs of progress toward democratization, many academics and journalists argue that the transition, which was shaped by KMT elites (so they could maintain control over the pace of change and the party's reputation), was incomplete; the people responsible for past injustices had not been prosecuted by the time of the Sunflower Movement (Wu, 2005; Shattuck, 2019), and the KMT retained significant power, including majority control of the legislature until 2016. As Hioe (2016) noted, "the plethora of KMT politicians culpable of past misdeeds . . . are still running around, it remains that few of the culprits of past crimes committed in Taiwan have . . . been held to account and many remain politically active." The lingering influence of authoritarianism contributed to Taiwan's governance crisis and related social and economic issues.

Under the KMT's decades-long authoritarian rule, connected businesses enjoyed the privilege of entering lucrative industries that were regulated by the government (Wade, 2003), and such businesses obtained various regulatory favors and investment resources (Mahmood, Chung, and Mitchell, 2017). Despite Taiwan's rapid economic growth from the 1960s to the 1990s, the economy in the 2010s faced low and stagnating wages, increasing income inequality, and the hollowing out of domestic industries (Hsiao, 2016)—problems attributed to policies that allowed manufacturing firms to shift their factories to Mainland China and other low-cost regions. The Taiwanese economy was also increasingly controlled by large corporations: The ten largest firms employed only 4 percent of the population, but their share of total revenue in Taiwan increased from 25 percent in 1990 to over 40 percent in 2010 (Min News, 2021). Economic concentration limited the market space for small and medium-sized firms, making it difficult for them to survive, and further worsened labor conditions by lowering wages, reducing benefits, and demanding longer working hours.

Taiwan's democratic transition had not completely alleviated these problems, and political ties continued to be an important channel through which businesses could influence politics (Mahmood, Chung, and Mitchell, 2017). The following public statement issued by Sunflower Movement protestors clearly illustrates the public's frustration with the KMT government's economic policy and its authoritarian past (Yan, 2015: 343):<sup>2</sup>

The opposition of CSSTA is by no means opposing anything related to China . . . The biggest problem of the CSSTA is that under conditions of free trade, big corporations reap the most benefits and expand unrestrictedly across the straits, which will hurt small local business owners in Taiwan . . . The debate on CSSTA is far beyond the contestation between proindependence/pro-unification or pan-Blue/pan-Green. It is about a class struggle issue in

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<sup>&</sup>lt;sup>2</sup> To save space, we report only an excerpt here; we include the original full statement and its English translation in Online Appendix 3.

which many political and capital elites swallow farmers, workers, and small businesses, and a severe survival issue that every Taiwanese young person may encounter in the future.

The Sunflower Movement was "the largest protest-based mobilization in Taiwan's history" (Ho, 2018: 1), and its scale, duration, and intensity signaled a weakening of the KMT's hold on the public. It also popularized the slogan "KMT must fall for Taiwan to stand tall (國民黨不倒, 台灣不會好; Yeh, 2015: 1)". After the Sunflower Movement, the KMT suffered a significant defeat to the DPP opposition party in the 2016 presidential and legislative elections. This change in government was more than just a peaceful transfer of power; it was "a historical moment in Taiwan, marking the DPP in full control for the first time" (BBC, 2016).

## Corporate Elites' Response to the Sunflower Movement

Corporate elites in Taiwan shrewdly sensed the signal of the Sunflower Movement. Li Yun-chieh, a director connected with the KMT and affiliated with TTL Corporation, reflected on the broader implications of the movement in this comment in June 2014: "Although the Sunflower Movement has ended, the fear of the people has not subsided . . . Parties will rotate, and the roles of government and opposition will switch . . . Taiwan should escape the vicious cycle of blue-green mutual obstruction" (Li, 2014). KMT-connected firms expanded their charitable efforts after the Sunflower Movement. For example, Shih Chong-tang, chairman of ASUSTeK Computers, said that the Sunflower Movement was a "wakeup call" that demonstrated the public's dissatisfaction with the status quo, and he vowed to make changes that would benefit the public (Central News Agency, 2014). Similarly, a board member of a KMT-connected listed firm in Taichung stated in an interview on July 9, 2020, that after the Sunflower Movement, his company devoted more resources to building relationships with clients in order to offset any perceptions of collusion stemming from its association with the KMT. The prospect that the KMT might go out of power and that the incoming government could prosecute firms for past collusion clearly motivated such firms to take action. Chen Charng-ven, chairman of Taiwan's prominent law firm Lee and Li, publicly voiced his concerns that the incoming political regime might exploit the concept of "transitional justice" as a means of suppression and could launch political attacks on firms connected to the KMT (Chen, 2015). As large-scale public projects typically take years and span different governments, business groups engaging in these construction projects also anticipated the future investigation of their "backroom dealings" once the regime changed (The Storm Media, 2018).

The KMT affiliates' concern that the DPP would retaliate when they came to power had a solid basis. Taiwan's first DPP president, Chen Shui-bian, was sentenced to 19 years in prison shortly after the re-elected KMT president Ma Ying-jeou was sworn into office in 2008. As Hioe (2016) wrote, "the DPP would be no different from the KMT in seeking revenge upon the KMT once in office." Shortly after the DPP president Tsai Ing-wen assumed office in 2016, the then-DPP-controlled legislature passed two major laws: the Act Governing the Handling of Ill-Gotten Properties by Political Parties and their Affiliated Organizations, and the Act on Promoting Transitional Justice. The Committee of the Ill-Gotten Party Assets Settlement (CIPAS) was formed to investigate the assets of KMT and its

connected organizations. CIPAS froze all KMT assets in 2016, resulting in the party laying off 40 percent of its staff, as it could not afford to pay the monthly salaries of its 300 employees (Shattuck, 2019). CIPAS also investigated KMT-connected firms and classified some (e.g., Palasia Hotel Palau, the Central Motion Picture Company, China Youth Corps, the Central Investment Company, and the Hsinyutai Company) as "KMT affiliates," subsequently withholding their operational permits, freezing their assets, or confiscating those that were deemed "ill-gotten" (Chen, Hsu, and Chin, 2018; Shattuck, 2019: 1). Many of the deals made by KMT-connected firms such as Farglory Group, Radium Group, Fubon Group, Foxconn, and Clevo and Epoque Corporation were also investigated (Hioe, 2017).

Developing a better relationship with the public buffered some firms against transitional risks. For example, although the DPP government conducted investigations into the government contracts procured by many KMT-connected construction companies during the Ma Ying-jeou administration, Kingdom Construction was exempted from fines. This was attributed to the firm's involvement in the Library Donation Project, which benefited local communities (Liberty Times, 2016). In an address to parliament, Tsai Ing-wen stated that CIPAS would be lenient toward KMT-allied firms that had substantially contributed to social welfare, and would not press them to give back every penny of the rent they had extracted from society (DPP Press, 2016). In contrast, labor unions, newly elected legislative members, and community organizations exposed the collusive behaviors of many KMT-connected firms that had not engaged in such prosocial endeavors (Huang, 2016). Thus, corporate philanthropy protected some KMT-connected firms in the investigations conducted by the incoming DPP regime.

#### Method

#### Data and Sample

Using the *Taiwan Economic Journal* (TEJ) database (Zhu and Chung, 2014), we constructed a quarterly sample consisting of Taiwan-listed firms from the first quarter of 2012 to the last quarter of 2015. We used a difference-in-differences-styled (DID-styled) design. We distinguished KMT-connected from non-KMT-connected firms for comparison and regarded the Sunflower Movement as the event shock, to identify the different effects of the democratic transition on these two groups of firms.

Following studies in similar settings (e.g., McDonnell and Werner, 2016; Espinosa, 2021; McDonnell, Odziemkowska, and Pontikes, 2021), we employed quarterly data to create a fine-grained event window that captured firms' immediate responses to the Sunflower Movement and isolated potential confounding events within the same year. Specifically, the Sunflower Movement took place in the first quarter of 2014, and the subsequent local election happened in the last quarter of 2014. Thus, the quarterly data allowed us to assess firms' immediate reactions to the movement and to avoid confounding the movement's impact with the subsequent local elections. In comparison, annual data lack this level of granularity and cannot distinguish the impacts of multiple events within the same year. Nevertheless, our main results and additional analyses are robust with the annual data, and we report these findings in Online Appendices A1 and A5. To address potential standard error deflation and seasonality, we double-clustered standard errors at the city—year and firm levels to account for correlations, and we included time-fixed effects (Guest, 2021). Our time window design balanced

observations before and after the Sunflower Movement and excluded the influence of the DPP after 2016.<sup>3</sup> We excluded financial firms because they have incomparable disclosure items (Koh, Reeb, and Zhao, 2018), and we excluded state-owned enterprises as these firms often have political agendas (Jia, 2014; Zhang, Marquis, and Qiao, 2016; Jia, Huang, and Zhang, 2019) and change chairpersons with the regime.<sup>4</sup> We obtained a pre-matching sample of 1,267 firms and 19,012 firm—quarter observations.

## **Dependent Variable**

We collected the dates, amounts, targets, and purposes of corporate philanthropic donations from the TEJ and aggregated the amounts for each quarter as the measure of *Philanthropic donation*. We applied a log transformation to correct for skewed values, adding one to the raw values to handle zeros. We also used count and dummy variables as alternative measures of philanthropic donations (see Table A4-3).

## **Independent Variable**

Our focal independent variable, *KMT connection*, was a dummy variable indicating whether there were personal connections between a firm and the KMT in the pre-movement period (Lim, Kim, and Agarwal, 2023). Following Johnson and Mitton (2003) and Zhu and Chung (2014), we considered both the formal ties developed through politicians serving in firms and the informal ties of (1) blood and marital relations, (2) friendships, classmates, and hometown relationships, and (3) membership in the same social clubs. These forms of political connections are the most prevalent in East Asia and have been shown to have similar functions in helping firms obtain government resources in Taiwan (Zhu and Chung, 2014).

Following Zhu and Chung (2014) and Faccio and Hsu (2017), we identified our treatment sample of KMT-connected firms by matching the names of corporate and political leaders. Online Appendix Note A2-1 provides details of our procedure. We defined political leaders as members of Central Committees, legislators-at-large, representatives of the National Assembly, and high-level government officials (deputy ministerial level or above). Corporate leaders, as defined by the Securities Exchange Act of Taiwan and Zhu and Chung (2014), include directors, supervisors, senior executives, and shareholders with more than 10 percent of a firm's shares.

We used the same approach to code corporate connections to the DPP. We assigned a value of one to the variable *KMT connection* if the firm had ties to the KMT and zero otherwise. Similarly, we assigned a value of one for *DPP connection* if the firm had ties to the DPP and zero otherwise. In our sample, 30.01 percent (5,705 of 19,012) of the observations had KMT connections, and 10.68 percent (2,031 of 19,012) had DPP connections.

## **Moderating Variables**

We constructed the *Political contestation* moderator by using a dummy variable indicating whether political figures of the old regime had lost their positions. This indicated whether a focal firm was headquartered in a city that had a KMT mayor between 2012 and the fourth quarter of 2014 but elected

<sup>&</sup>lt;sup>3</sup> Covering observations after 2016 did not change the findings.

<sup>&</sup>lt;sup>4</sup> Including SOEs in our analysis did not change the findings.

a non-KMT mayor in the 2014 local election. The KMT administered 15 cities before this election and lost 9 of them.

We computed *NGO density*, the city-level per capita number of NGOs, to measure local engagement in citizens' groups. We retrieved NGO registration information from the Taiwan NGO Information Platform<sup>5</sup> and demographic statistics from the Department of Household Registration.<sup>6</sup> We collected data on 7,072 NGOs, aggregated the city-level NGO counts based on their operation locations, and then scaled the variable by dividing it by 10,000. We used the mean value of *NGO density* in the pre-movement period to reduce measurement errors (Lim, Kim, and Agarwal, 2023). Using quarterly varying NGO density values led to similar results.

### **Control Variables**

We controlled for four sets of variables that can affect a firm's philanthropic donations. First, we controlled for firm-level characteristics known to affect corporate philanthropy (McWilliams and Siegel, 2000; Marquis and Qian, 2014): Firm size, Cash flow, ROA, Financial leverage, and R&D intensity. These indices were retrieved from TEJ's quarterly updated database. Luo and Chung (2013) found that ownership and control structures are critical factors affecting corporate strategies in Taiwan. Therefore, we classified firms into those governed by a single family, those governed by professional managers, and those with other common governance structures, and we included governance-fixed effects to control for differences in ownership structure.

Second, we controlled for corporate dependence on specific markets and stakeholders, as research has shown that these factors affect a firm's CSR strategy (Tilcsik and Marquis, 2013). We controlled for *Mainland investment*, i.e., quarterly investments in Mainland China, and *Foreign ownership*. We also manually collected data on *Government procurement* in the past year from the Taiwan Buying Network, which documents government bids and provides data on bidders' purchases. We included *DPP connection* × *Post movement* to control for the influence of rival party connections and local governments.

Third, we controlled for social reputation by including the variables *Admirable firm* and *CSR scandal* in our estimations, to eliminate the concern that an increase in philanthropic donations may be driven by pre-existing conditions. We collected data on firms' reputations from *CommonWealth*, a magazine that collates high-profile corporate reputation evaluations and prizes in Taiwan. We coded *Admirable firm* as one if the firm had received a *CommonWealth* Corporate Citizenship Award in the previous year and zero otherwise. *CSR scandal* was the aggregate quarterly number of socially irresponsible incidents reported by the TEJ, such as polluting the environment and harming labor or consumer rights. We winsorized all of the continuous variables at the 1st and 99th percentiles to mitigate the bias led by outliers.

<sup>6</sup> https://www.ris.gov.tw/

<sup>&</sup>lt;sup>5</sup> https://www.npo.org.tw

<sup>&</sup>lt;sup>7</sup> https://taiwanbuying.com.tw/

<sup>&</sup>lt;sup>8</sup> https://topic.cw.com.tw/csr

Finally, we controlled for firm-fixed effects to examine within-firm variations over the sample period in the DID-styled setting (Acemoglu et al., 2019). As 7.09 percent of the firms changed their industry classification between 2012 and 2016, the firm-fixed effects did not fully capture industry characteristics, so we also controlled for industry-fixed effects. We included quarter-fixed effects to control for time trends and other events that could have simultaneously influenced the treatment and control groups.

## **Matched Sample Construction**

A potential concern is the non-random likelihood of a firm being connected to the KMT. To mitigate this concern and ensure that firms in the treatment and control groups are comparable, we employed propensity score matching as outlined by Shipman, Swanquist, and Whited (2017). We matched firms on variables related to the likelihood of having KMT connections. First, to control for the influence of financial characteristics, we matched firms on Firm size, ROA, Firm age, Financial leverage, and Export ratio. Second, to exclude the effects of reputation and motivation to donate, we matched firms according to the Admirable firm variable. Third, to isolate any firm-level factors that could affect the motivation to build political connections, we matched firms on Insider size, Tax rate, Bank loan, KMT investment, and the exposed KMT-involved Corruption activity, to control for confounding factors affecting both the KMT connection formation and donation making.<sup>10</sup> Insider size represents the total number of directors, supervisors, and executives (Li and Liang, 2015). KMT investment was quantified using the shareholding amounts from several entities, including seven major investment enterprises established by the KMT<sup>11</sup> and enterprises in which the KMT held over 95 percent of shares, as disclosed by the CIPAS and the KMT Assets Exposure website. 12 The KMT-involved Corruption activity is a dummy variable indicating whether firms were involved in corruption cases with KMT officials aiming to misappropriate public benefits. We consolidated illegal ruling records from the Taiwan Financial Supervisory Commission and the Stock Exchange Corporation, as provided by the TEJ database, along with Factiva's related corporate corruption news. Finally, the match also factored in the two moderating variables.

We performed one-to-one nearest neighbor matching without replacement based on a greedy algorithm, which makes locally optimal choices at each matching step. To control for the difference between a treatment observation and its nearest counterparts, we set a caliper distance of 0.25 standard deviations in reference to the log-odds (Haveman et al., 2017). Our matched sample consisted of 318 KMT-connected firms and 318 non-KMT-connected firms. We dropped 105 KMT-connected firms for which there were no counterfactuals within the caliper restriction range.

<sup>&</sup>lt;sup>9</sup> One database of the TEJ documents the industry codes of the initial public offerings and the subsequent changes, including dates of changes and updated industry codes. We inferred the time-varying industry codes from these two items of information.

<sup>&</sup>lt;sup>10</sup> We thank an anonymous reviewer for the suggestion to add the variables *Bank loan, KMT investment*, and *Corruption activity* to the matching process.

<sup>&</sup>lt;sup>11</sup> These enterprises include Central Investment, Kwang Hua Investment, Chi Sheng Industry, Asia Pacific Holdings, Ching Te Investment, Chien Hua Investment, and China Investment.

<sup>12</sup> https://kmt.exposed/

We conducted several tests to ensure that the treated and the matched control samples were balanced. First, we found that the medium bias between the two samples decreased from 17.90 to 3.40 after matching, and the overall difference became insignificant (p = 0.99). Second, as shown in Figure 1, we estimated the marginal effects of each matched dimension on the likelihood of being connected to the KMT.<sup>13</sup> The minimal effect sizes and low significance levels after matching suggested a balance between the treatment and control groups. Finally, as shown in Online Appendix Figure A4-1, we plotted the kernel density distributions after matching. The overlap between the two groups after matching suggests a good balance. The descriptive statistics of the after-matching sample are provided in Table 1. The average variance inflation factor value was 1.20, indicating no significant collinearity among the variables.

[Insert Figure 1 and Table 1 about here]

#### Results

### **Parallel Trend**

We used a two-way fixed-effect model to plot the trends in philanthropic donations and to validate the parallel trends between the KMT-connected and non-connected firms before the movement. We allowed  $\beta^*$  in Equation (1) for the treatment and control groups to vary and controlled for firm and quarter characteristics by incorporating firm- and quarter-fixed effects.

```
Philanthropic donation<sub>ct</sub> = \alpha + \beta^* Treatment \ dummy_c \times Quarter \ dummy_t + \gamma Controls_{ct} + Firm \ FE \\ + Quarter \ FE + \varepsilon_{ct}  (1)
```

Figure 2 plots the coefficients estimated from Equation (1). The insignificant  $\beta^*$  pre-movement suggested that there were no differences between the control and treatment groups pre-movement (i.e., from Q1 2012 to Q4 2013), confirming that the observed treatment effects were not driven by pre-existing differences. However, after the Sunflower Movement, the KMT-connected group increased its donations to a greater extent than the control group did, as reflected by the positive and significant  $\beta^*$ .

[Insert Figure 2 about here]

### **Hypothesis Testing**

Estimation model. Our primary analyses were as follows:

```
\begin{split} Philanthropic \ donation_{ct} \\ &= \alpha + \beta^* KMT \ connection_c \times Post \ movement_t + \beta M_c \times Post \ movement_t \\ &+ \beta^{**} M_c \times KMT \ connection_c \times Post \ movement_t + \gamma Controls_{ct} + Firm \ FE \\ &+ Quarter \ FE + \varepsilon_{ct} \end{split}
```

where KMT connection is a vector of treatment that equals one when a firm is connected to the KMT and zero otherwise; the variable *Post movement* captures the occurrence of the Sunflower Movement and equals one for quarters after Q1 2014 and zero otherwise;  $M_c$  represents the specific moderator for

<sup>&</sup>lt;sup>13</sup> The *CommonWealth* Corporate Citizenship Award evaluates enterprises of different sizes separately. Therefore, the interaction between *Admirable firm* and firm size categories was included when we estimated the marginal effects of being an admirable firm.

each test; and *Firm FE* and *Quarter FE* indicate the firm- and quarter-fixed effects, controlling for unobserved individual firm and time characteristics and omitting certain coefficients. The variables of interest were the coefficients of the interaction terms  $\beta^*$  and  $\beta^{**}$ , where  $\beta^*$  captures the change in *Philanthropic donation* of KMT-connected firms after the Sunflower Movement and  $\beta^{**}$  captures the moderating effects. The main analyses were based on the matched sample.

**Estimation results.** Table 2 reports the regression results. Model 1 is the baseline model with only control variables included. We examined H1 using Model 2, as shown in Table 2. The DID estimator produced a positive and statistically significant result (coefficient = 0.28, p = 0.001), thus supporting H1. The post-movement increase in the average donation amount for KMT-connected firms is higher than that of the matched firms by approximately 28 percent of the sample average, roughly an increase of 94,652 NTD (3,313 USD) per quarter. A survey by the Association of Philanthropic Accountability (2022) in Taiwan, analyzing 275 listed firms that made donations, found their median annual donation value to range between 10,000 and 50,000 NTD. Therefore, the amount of 94,652 NTD per quarter is significant. Additionally, compared to the period before the movement, donations from matched non-KMT-connected firms changed by only -0.23 percent (p = 0.870) over the sample average after the movement, while donations from KMT-connected firms increased by 27.42 percent (p = 0.001) to approximately 430,734 NTD (15,076 USD) per quarter after the movement.

### [Insert Table 2 about here]

We used Model 3 in Table 2 to test H2, i.e., the moderating role of Political contestation. Our findings support H2, indicating that KMT-connected firms operating in cities where a KMT mayor had been replaced by a non-KMT mayor increased their philanthropic donations after the Sunflower Movement event (coefficient = 0.35, p = 0.001). Recent studies have indicated the potential bias of a fixed-effect interaction estimator, as it may confound within-firm and between-firm variations. Subgroup comparison has been identified as a more accurate method of assessing how contingencies moderate main effects (Shaver, 2019; Giesselmann and Schmidt-Catran, 2022). 14 Following the subgroup approach, we further split the sample according to whether the locations of the firms had a KMT mayor who was replaced by a non-KMT mayor (high contestation) or whether no such changes occurred (low contestation). The results, shown in Figure 3a, indicate that after the movement, KMTconnected firms in cities where a KMT mayor was replaced by a non-KMT mayor increased their philanthropic donations by 42.70 percent (p < 0.001; approximately 144,344 NTD, or 5,052 USD per quarter) more than non-connected firms did. In contrast, KMT-connected firms in other cities increased their donations by only 4.69 percent (p = 0.679) compared to non-connected firms. This difference between the two increases is statistically significant according to a permutation test (p < 0.001).

Model 4, reported in Table 2, was designed to assess the moderating influence of NGO density, and the results support H3. The outcome of the triple-difference estimator is positive and highly significant (coefficient = 0.18, p = 0.004), indicating that KMT-connected firms increased their

<sup>&</sup>lt;sup>14</sup> We thank an anonymous reviewer for pointing out the necessity of using a subgroup analysis to test the moderating effects within the fixed-effects model.

donations after the Sunflower Movement to a greater extent when civil society was stronger. Similarly, in the subgroup analysis, KMT-connected firms in cities with NGO density above the average showed a substantial 51.95 percent increase in philanthropic donations (p = 0.001; approximately 175,613 NTD, or 6,146 USD per quarter) compared to non-KMT-connected firms, as illustrated in Figure 3b. In comparison, KMT-connected firms located in cities with a lower NGO density value showed an 11.18 percent increase in their philanthropic donations (p = 0.226) compared to non-KMT-connected firms. The difference in these increases in donation levels was statistically significant according to a permutation test (p = 0.001). The results of both the interaction and the subgroup analyses strongly support H3. Finally, Model 5, reported in Table 2, is the full model and shows outcomes consistent with those reported earlier.

[Insert Figure 3 about here]

#### **Additional Tests**

## **Degree of Political Embeddedness**

We further examined the extent of the embeddedness of politically connected firms within the old regime, beyond a simple binary measure of KMT connections. Due to their entrenched political identities, firms deeply embedded in the incumbent regime encounter significant risks during democratic transitions. These firms struggle to adapt due to multiple connections and face intense scrutiny from the public and rival parties. As a result, they are more likely to increase donations to public causes, compared to less-embedded firms.

To measure embeddedness, we used four indicators: *Entrenchment* (evaluating the robustness and cohesion of connections with other KMT-connected firms, detailed in Online Appendix Note A2-2), the *Number* of connections, *Multiplicity* (the diversity of political department types in which senior KMT officials are involved), and political *Power* (the average count of high-level political roles held by senior KMT officials in the firm).

Table 3 shows that compared to KMT-connected firms with low embeddedness, those with high embeddedness significantly increased their donations after the Sunflower Movement (Models 1–4). Additionally, when we included non-connected firms in the analyses, we found that KMT-connected firms with high embeddedness also significantly raised their donations more after the movement than did both non-connected firms and KMT-connected firms with low embeddedness (Models 5–8).

[Insert Table 3 about here]

#### **Mechanism Tests**

We argue that strengthening public legitimacy through philanthropic donations is a strategic approach that KMT-connected firms used to hedge against transitional risk, as the opposition party was likely to treat firms with public legitimacy more leniently. To validate this transitional risk-hedging mechanism, we tested three underlying assumptions of this strategy.

Assumption 1: Stability of political ties. We argue that it is difficult to alter political connections in the short term. Therefore, between the 2014 Sunflower Movement and the 2016 government change, KMT-connected firms were unlikely to sever ties with the KMT or forge new ones with the DPP. To examine these dynamics, we conducted a complementary log-log failure analysis to estimate the hazard ratios for two events—KMT-connected firms reducing their KMT ties and these firms increasing their DPP ties—and present the results in Online Appendix Table A4-1. We assessed the impact of the Sunflower Movement on the KMT ties of these firms and found no significant likelihood of the firms severing KMT ties post-movement compared to pre-movement. The one-sided test rejected the null hypothesis that KMT-connected firms would become more likely to cut their connections post-movement than pre-movement (p = 0.019). We also evaluated the movement's effect on DPP ties and found that KMT-connected firms were 71.84 percent less likely than other firms to form new DPP connections in the post-movement period (p = 0.037).

Assumption 2: Donations targeting the public. If the increase in corporate philanthropy is intended to garner public approval, firms will donate to public welfare—related rather than to KMT or DPP party-affiliated causes. We tested this assumption and found that increased donations were primarily made to public welfare—related causes (Online Appendix Figure A4-2). KMT-connected firms increased their donations to grassroots causes, such as to organizations involved in education and youth development, minority welfare, community welfare, and employee and industry development, but not to cultural activities, environmental protection, or other projects associated with the government. In addition, KMT-connected firms may redirect their political activities to take a concealed approach by donating to politically connected charities, thus avoiding scrutiny from the public and rivals. However, our analysis in Online Appendix Figure A4-2 shows that donations were directed to recipients not linked to either the KMT or DPP, indicating that the donations were not intended to support either party. We assessed recipient connections to political parties based on the board memberships of the recipient organizations. Even after we accounted for political motivations, such as public opinions, reactions to the Sunflower Movement, and tax rates, our findings remained consistently robust.

Assumption 3: Transitional risk stemming from revealed collusive practices. We posited that the responses of KMT-connected firms were driven by transitional risks stemming from the KMT's authoritarian reign and collusive practices. We tested this assumption, as shown in Online Appendix Figure A4-3, by identifying collusive KMT-connected firms that had been convicted by the DPP. These firms are particularly attuned to potential political risks due to their susceptibility to penalties from rival parties. We found that KMT-connected firms with convictions for collusion under the DPP government showed more significant increases in donations after the Sunflower Movement than other KMT-connected firms, a trend that became even more pronounced following the 2014 local election. This pattern persists after the movement, underscoring the importance of social insurance for these firms.

## **Robustness Checks and Post Hoc Analyses**

We ran several sets of additional analyses to strengthen the validity of our results and rule out alternative explanations. To save space, we provide only summaries here and report the details in Online Appendix A3 and the estimation results in Online Appendix A4.

**Subgroup testing.** We conducted the subgroup testing of H2 and H3 and reported the results in Table A4-2.

Alternative measurements. We used count and dummy variables to measure philanthropic donations (Table A4-3). For the count measure, we employed a fixed-effects Poisson estimator to avoid potential bias from log transformation and sparsity of donation data (Cohn, Liu, and Wardlaw, 2022; Chen and Roth, 2024). For the dummy measure, we used a linear probability model, which allows for incorporating firm-fixed effects.

Alternative matching method and estimator. We used an alternative matching method, coarsened exact matching (Table A4-4). Then, besides the two-way fixed-effect estimator, we used a modern DID estimator, the fixed effects counterfactual estimator (Liu, Wang, and Xu, 2024), to gauge the potential impact of heterogeneous treatment effects (Figure A4-4).

Alternative explanations. We excluded the alternative explanations of political sensitivity (Models 1–2 of Table A4-5) and anti-Mainland-China sentiment (Models 3–4 of Table A4-5). In addition, the donation increase might appear to be a direct response to the movement, such as to mitigate legitimacy loss, rather than a response to the transitional risks it introduced. However, Figure A4-5 shows that even when we isolated various possible direct impacts of the movement on corporate operations, our findings held, ruling out this explanation. Finally, we ruled out the 2014 local elections as the primary driver of the donation increase. The movement posed significant transitional risks with lasting impacts on the political landscape and corporate behavior (Figure A4-6), with the 2014 elections signaling these risks. It was the 2016 regime change, not the local elections, that fulfilled these risks by altering the political privileges of KMT-connected firms (Figure A4-7).

**Placebo test.** To address potential alternative explanations and test the robustness of our estimations, we conducted a placebo test using random sampling to determine whether other factors interfered with the results (Figure A4-8). The results suggest that our findings are unlikely to have been driven by other unobserved factors.

## **Discussion and Conclusion**

We have argued that firms politically connected to a previous authoritarian regime can use corporate philanthropy to hedge against the risk of democratic transition. Political connections present a dilemma, as the ties through which firms obtain competitive advantages can become liabilities once the regime they were connected to loses power. Anti-government mass protests can expose the regime's collusive practices and signal that the regime may not retain power for long. Thus, such protests can prompt connected firms to engage in corporate philanthropy to shore up their sociopolitical legitimacy, as they hope to be treated more leniently after power shifts to the opposition. This strategy is desirable as it is directly under the firms' control, can be deployed promptly, and will not irritate the incumbent government. Our investigation into Taiwanese firms' philanthropic

donations before and after the Sunflower Movement supported our theory. Firms connected to the KMT government increased their donations in the period after the Sunflower Movement to a greater extent than did non-KMT-connected firms. The donations were higher for KMT-connected firms in cities where KMT politicians faced stronger contestation and where there were more NGOs.

Consistent with our argument that firms cannot easily change their political affiliations, our supplementary analyses showed that after the Sunflower Movement, most KMT-connected firms did not cut their ties with the KMT or build new ties with the DPP. We found that building new ties with the DPP became more difficult. After investigating the types of donations, we found that most went to public-welfare causes rather than to political causes related to the old or new regime. We also found that KMT-connected firms that were deeply embedded in the KMT networks or had been convicted by the DPP donated even more after the mass protest. These findings contribute to political economy research into democratic transition, suggest a new link between strategic CSR and corporate political activity, and extend signaling theory to social movement research. Below, we elaborate on these contributions, discuss our study's limitations, and consider future research directions.

#### **Contributions**

First, our study contributes to the political economy literature. We reveal a strategy that politically connected firms adopt to survive democratic transitions, along with the general pattern that firms change their non-market strategies in response to institutional changes. The establishment of modern, well-governed states is a major challenge globally, particularly in the face of recent democratic backsliding and authoritarian resurgence. Democratic transition is a lengthy process, and even in regions that have established electoral systems and experienced peaceful power transitions, the change to full democracy can still be incomplete. Despite the importance of democratic transitions, the strategies that firms apply to survive and adapt to the process remain underexplored (Naidu, Robinson, and Young, 2021; Gatignon, Gama, and DeMello, 2023). Studies of firms and democratic transitions have focused on either the unfair competitive advantages gained through political connections (Peng and Luo, 2000; Leuz and Oberholzer-Gee, 2006; Sun, Mellahi, and Wright, 2012) or how these advantages can quickly turn into liabilities once the regime the firms are connected to loses power (Fisman, 2001; Leuz and Oberholzer-Gee, 2006; Bucheli and Salvaj, 2013; Acemoglu, Hassan, and Tahoun, 2018).

Scholars have only recently considered the non-market strategies that firms adopt in times of institutional change. Gatignon and colleagues (2023) studied anti-corruption measures within a democratic society (i.e., police raids in Brazil in 2014) and found that investors' evaluations of non-market strategies depended on the institutional environment. When the institutional context shifts from legal capture (corruption) to legal compliance, donations to NGOs can bring firms higher abnormal returns than political donations can, while the abnormal returns gained from a board's political connections were found to be zero or marginally negative. Gatignon, Gama, and DeMello (2023: 930) examined how *pre-given* political and social ties influence market performance following a social movement; while they suggested that "firms should seek to adjust their behavior accordingly" after the movement, their relatively short event windows did not allow for the identification of specific

strategies implemented in response. Similarly, Darendeli and Hill (2016) analyzed eight Turkish construction companies doing business in Libya around the time of the overthrow of the Qadhafi regime and found that those that had worked on public-benefit projects were protected by the public, whereas those working on elite-serving projects were not. While their study demonstrates that serving the public interest can protect firms during a democratic transition, it is unlikely that these firms' participation in different production markets was driven primarily by the goal of risk hedging in a case of abrupt regime overthrow. Building on these studies, our study reveals a coping strategy for the specific challenges associated with democratic transitions and answers the general call in the literature to investigate how firms adjust their non-market strategies to better align with institutional changes.

In particular, we highlight the usefulness of corporate philanthropy as a strategy to build public support without irritating an incumbent regime and to bypass the challenges involved in cutting old ties or building new ones. The pathway to philanthropy that we identify in this study can be applied to other democratic transitional contexts. For example, there is anecdotal evidence that companies in the Middle East increased their CSR activities after the mass protests of the Arab Spring (Avina, 2013) and that more wealth redistribution projects were established in the Niger Delta after anti-government mass protests occurred in the region (Frynas, 2001). Our study, together with Gatignon, Gama, and DeMello's (2023) research, also demonstrates the generalizability of the finding that social strategies can substitute for political strategies or compensate for their limitations in a climate of institutional uncertainty. Using qualitative and quantitative data, future research can explore other market and non-market strategies that firms may adopt when adapting to the uncertainties of institutional change.

Second, our article links research on CSR and corporate political activity by identifying the role of CSR in helping firms adapt to democratic transitions. CSR has long been regarded as an insurance strategy (Godfrey, 2005) that can help firms mitigate the negative effects of corporate misconduct (Luo, Kaul, and Seo, 2018), parent firm reputational threats (Zhou and Wang, 2020), and financial crises (Flammer and Ioannou, 2021). Our study adds to this line of research by demonstrating that corporate philanthropy is a hedge against the risk of having political connections and, hence, helps firms adapt to democratic transitions. The risk brought by regime change is fundamentally different from the risks associated with stock price volatility or firm misconduct. The magnitude of the risk can be very large, and its link to CSR is more indirect and obscure. In addition, our findings suggest that philanthropy can be an actionable strategy for organizations, as it can ensure their legitimacy when they cannot control the reputations of those to whom they are connected.

Our study also contributes to the corporate political activity literature by assessing how firms can deal with the liabilities of political connections with a falling regime before it is replaced. The risks of political ties in transitional environments have been studied (Siegel, 2007; Sun, Mellahi, and Wright, 2012; Zhu and Chung, 2014) but generally in isolation from research on how firms manage the risk associated with their networks (Jia, Markus, and Werner, 2023). Organizations have been found to mitigate the risk of network connections by cutting old ties or building new ones, but these strategies have primarily been investigated in non-political or non-transitional contexts. We emphasize the

political dilemmas faced by connected firms when a regime has not been entirely ousted. We argue that the strategies previously suggested do not apply to political ties before regime change occurs, and we reveal that firms can use donations to prosocial causes as an alternative strategy to strengthen their legitimacy.

Our study is not the first to investigate the intricate relationship among firms, the public, and the government, but our findings suggest a new combined approach to studying corporate political activity and CSR. Firms' attempts to co-opt grassroots activists and community stakeholders have been examined in many studies of corporate political activity (Hillman and Hitt, 1999; Yue, 2015; Wen, Walker, and Yue, 2024). Corporate charitable giving has also been identified as a means of political influence, and corporate philanthropic foundations often invest in charities that are of interest to politicians (e.g., Bertrand et al., 2020). Our theoretical perspective was developed for the context of transition, and it extends in three ways from the previous studies that have primarily explored corporate giving in mature democracies. First, while the public is typically treated as an intermediary between firms and politicians, we argue that the public can provide direct protection and benefits to firms, in addition to influencing politicians in a transitional context (Darendeli and Hill, 2016). Thus, pleasing the public is not only an indirect pathway for influencing politicians but can be an end in itself for firms in transitional contexts. Second, studies conducted in mature democracies have not typically considered the risks of near-term regime change. We argue that in a transitional context, the incumbent government's imminent loss of power motivates firms to build public support. Finally, most studies have assumed that firms co-opt grassroots actors to either achieve or maintain favorable regulations, while in a transitional context they may seek grassroots support as a hedge against the change to a less favorable regime. Thus, we add to the literature by suggesting that hedging the democratic transitional risk is a new mechanism between CSR and corporate political activity.

Third, our article contributes to the social movement literature by extending the signaling function of social movements from public to private politics. While public politics researchers have long noted the information function of anti-regime mass protests, they have focused on politicians or other participants (e.g., Lohmann, 1993) as the receivers of such information. Private politics researchers have also noted that firms are attentive to information conveyed by social movements, but they have focused on how anti-corporate movements signal the potential profitability of a market (e.g., Ingram, Yue, and Rao, 2010; Rao, Yue, and Ingram, 2011; Yue, Rao, and Ingram, 2013) or how the concessions made by firms signal the general acceptability of a practice (Briscoe and Safford, 2008). The few studies that link public and private politics (e.g., Olzak and Soule, 2009; Hiatt, Grandy, and Lee, 2015) have treated corporations as the ultimate target of activists and the government as a relatively neutral intermediary. However, such a pluralistic view may not hold in a transitional context, in which political and business relationships are deeply intertwined. By examining politically connected firms, we show that public politics targeting the government can signal transitional risks and, hence, affect firms' behavior. Our study thus answers social movement scholars' call to integrate research on public and private politics (Soule, 2012; Leitzinger, King, and Briscoe, 2018). Antigovernment protests occur much more frequently and are often on a much larger scale than anticorporate protests, so we also suggest that studying firms' political connections can be a promising research direction to integrate public and private politics research.

## Limitations and Opportunities for Future Research

The study has a few limitations that point to future research opportunities. First, right after the Sunflower Movement, firms' prosocial efforts might have been motivated by the goal to compensate for their legitimacy loss, in addition to hedging against the risk of regime turnover. Fortunately, the divergent donation behaviors by KMT firms after the local elections demonstrate firms' risk-hedging motivation as these firms received additional shocks in political risks but not in legitimacy loss (see Online Appendix Figure A4-5). Nevertheless, future research should further unpack the complexities surrounding democratic transitions and tease apart these two mechanisms. Second, while our post hoc analyses suggested that both formal and informal political connections affect firms' responses to anti-government protests, future research is necessary to understand how the specific characteristics of political connections and connected politicians, such as connection depth and breadth of the elected versus the appointed status of politicians, influence corporate responses. Third, due to data limitations, we considered only philanthropic donations; we did not consider other forms of CSR activities. Future research could study the roles of various practices in which firms blend business practices with social responsibilities when contributing to the public good. Fourth, data limitations also meant that we examined only connections with the political party, not those with other social agencies, such as NGOs. Although we examined the moderating effect of region-level NGO density, future research could use more fine-grained data to examine the direct interaction between firms and civil society. Finally, future research should assess the consequences of corporations using CSR as a risk-hedging strategy and compare its effectiveness with other types of hedging strategies.

Although the waves of democracy have washed every continent, people are increasingly recognizing that the route to democratization can be long and circuitous. With rising global concern about backsliding in the development of democracy, there is an urgent need to understand the interactions between governments, firms, and activists in the democratization process. Our research focuses on the consequences of anti-regime mass protests and shows that such protests play a significant role in prompting the wealthy affiliates of a regime to engage in social redistribution.

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# **Tables and Figures**

Table 1. Summary Statistics and Correlation Matrix\*

		Mean	S. D.	1	2	3	4	5	6	7
1	Philanthropic donation	0.24	1.84							
2	KMT connection	0.50	0.50	0.06						
3	DPP connection	0.13	0.34	0.01	-0.01					
4	Post movement	0.45	0.50	0.05	0.00	0.00				
5	Political contestation	0.60	0.49	0.02	0.00	-0.02	0.00			
6	NGO density	3.49	2.02	0.03	-0.02	-0.01	0.00	0.16		
7	Firm size	6.52	1.49	0.06	-0.01	0.03	-0.01	-0.06	-0.12	
8	Cash flow	6.23	5.61	0.00	0.02	0.00	0.02	0.00	-0.02	0.11
9	ROA	1.83	2.59	0.01	0.03	-0.04	0.01	-0.11	-0.12	0.21
10	Financial leverage	0.41	0.17	0.03	-0.03	0.07	0.01	0.04	-0.03	0.24
11	R&D intensity	0.04	0.09	-0.01	0.01	0.05	0.00	0.04	0.03	-0.16
12	Mainland investment	1.25	3.68	0.02	0.02	0.01	0.00	-0.04	-0.05	0.22
13	Foreign ownership	0.08	0.12	0.05	0.03	-0.05	0.04	0.01	0.03	0.35
14	Government procurement	1.96	5.36	0.00	-0.05	0.02	0.14	0.05	0.13	-0.03
15	Admirable firm	0.02	0.12	0.02	-0.01	-0.04	0.00	-0.02	-0.01	0.15
16	CSR scandal	0.06	0.22	0.04	0.02	0.01	0.03	0.03	-0.02	0.09
17	KMT regime	0.68	0.47	-0.02	-0.04	0.00	-0.36	0.15	0.06	0.02
		8	9	10	11	12	13	14	15	16
9	ROA	0.09								
10	Financial leverage	0.05	-0.06							
11	R&D intensity	-0.06	-0.24	-0.34						
12	Mainland investment	0.02	0.02	0.09	-0.03					
13	Foreign ownership	0.10	0.25	0.03	-0.07	0.14				
14	Government procurement	0.00	-0.01	-0.01	-0.03	0.03	0.00			
15	Admirable firm	0.02	0.07	0.02	0.01	0.03	0.14	0.00		
16	CSR scandal	0.01	0.00	0.07	-0.08	0.04	0.05	0.00	0.03	
17	KMT regime	-0.04	0.00	-0.03	0.05	0.05	0.00	-0.03	0.00	-0.02

<sup>\*</sup> N = 9,718. The post-matched sample comprised 636 firms, of which 318 were KMT-connected. Correlations with an absolute value greater than 0.02 were statistically significant. The correlation coefficients correspond to the levels of variability from which they were derived.

Table 2. Estimates of Corporate Philanthropy on the Matched Sample\*

Tubic 2: Estimates of Corpore		ropy on the r			
	Baseline	H1	H2	Н3	Full
	Model 1	Model 2	Model 3	Model 4	Model 5
Firm size	0.14	0.14	0.14	0.15	0.14
	(0.11)	(0.10)	(0.10)	(0.10)	(0.10)
Cash flow	-0.00	-0.00	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ROA	0.00	0.00	0.01	0.01	0.01
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)
Financial leverage	-0.02	0.01	0.00	0.00	0.00
	(0.23)	(0.23)	(0.22)	(0.22)	(0.20)
R&D intensity	0.35+	0.35+	0.40°	0.35+	0.39*
	(0.20)	(0.20)	(0.20)	(0.20)	(0.18)
Mainland investment	-0.00	-0.00	-0.00	-0.00	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Foreign ownership	0.90	0.97	0.95	0.99	0.96
	(0.74)	(0.74)	(0.75)	(0.75)	(0.65)
Government procurement	-0.01 <sup>••</sup>	-0.01°°	-0.01**	-0.01**	-0.01***
•	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Admirable firm	-0.05	-0.06	-0.07	-0.06	-0.06
	(0.45)	(0.45)	(0.45)	(0.46)	(0.45)
CSR scandal	0.01	0.00	0.00	-0.00	0.00
	(0.16)	(0.16)	(0.16)	(0.16)	(0.17)
KMT regime	0.08	0.08	0.06	0.12+	0.06
8	(0.06)	(0.06)	(0.08)	(0.06)	(0.07)
DPP connection × Post movement	-0.03	-0.02	-0.03	-0.01	-0.02
	(0.11)	(0.11)	(0.11)	(0.11)	(0.14)
KMT connection × Post movement	(** )	0.28**	0.07	0.28***	0.15
		(0.08)	(0.11)	(0.07)	(0.11)
Post movement × Political		(0.00)	-0.20 <sup>+</sup>	(0.07)	-0.21 <sup>+</sup>
contestation			(0.11)		(0.11)
KMT connection × Post movement ×			0.35**		0.22+
Political contestation			(0.13)		(0.11)
Post movement × NGO density			(0.13)	-0.04	0.01
1 ost movement × 1100 density				(0.03)	(0.03)
KMT connection × Post movement ×				0.18**	0.11***
NGO density				(0.06)	(0.02)
Constant	-0.81	-0.86	-0.80	-0.93	-0.80
Constant	(0.68)	(0.69)	(0.71)	(0.69)	(0.72)
Two-way-fixed	Yes	Yes	Yes	Yes	Yes
Industry-fixed	Yes	Yes	Yes	Yes	Yes
Governance-fixed	Yes	Yes	Yes	Yes	Yes
Observations	9,718	9,718	9,718	9,718	9,718
Firm counts	636	636	636	636	636
Adjusted R-squared	0.15	0.16	0.16	0.16	0.16
Aujusteu K-squareu	0.13	0.10	0.10	0.10	0.10

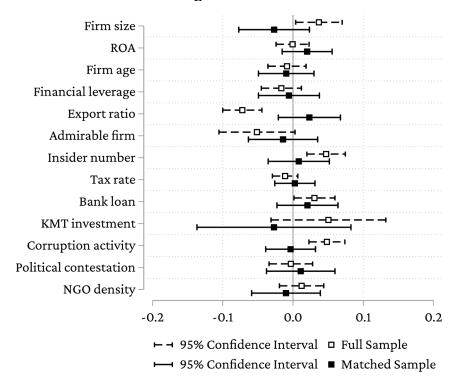
<sup>\*</sup>Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels. Unreported independent variables and interaction terms were absorbed by fixed effects. We standardized the continuous variables in the interaction terms.

Table 3. Degree of Political Embeddedness\*

	DV: Philanthropic Donation								
	Panel A: KMT-Connected Firms			Panel B: Matched Sample					
Indicators of embeddedness	Entrenchment	Number	Multiplicity	Power	Entrenchment	Number	Multiplicity	Power	
indicators of embeddedness	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	
Controls	Included	Included	Included	Included	Included	Included	Included	Included	
Embeddedness × Post	0.09+	0.23°	0.28°	0.17**	0.16**	0.17	0.14°	0.16**	
movement	(0.04)	(0.10)	(0.11)	(0.05)	(0.05)	(0.06)	(0.06)	(0.05)	
Two-way-fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Industry-fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Governance-fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Observations	6,323	6,323	6,323	6,323	9,718	9,718	9,718	9,718	
Firm counts	423	423	423	423	636	636	636	636	
Adj R-squared	0.19	0.19	0.20	0.19	0.16	0.16	0.16	0.16	

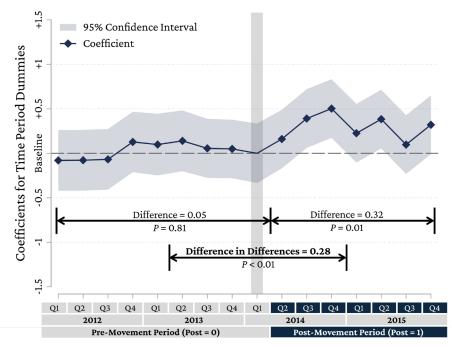
<sup>\*</sup> p < .00; \*\* p < .01; \*\* p < .001 \*\* Robust standard errors are in parentheses and are adjusted for clustering at both the city—year and firm levels. Panel A includes only the KMT-connected firms; Panel B includes both the KMT-connected firms that are matched with non-KMT-connected firms and their matched non-connected firms. We standardized the continuous variables in the interaction terms.

Figure 1. Balance Before and After Matching\*



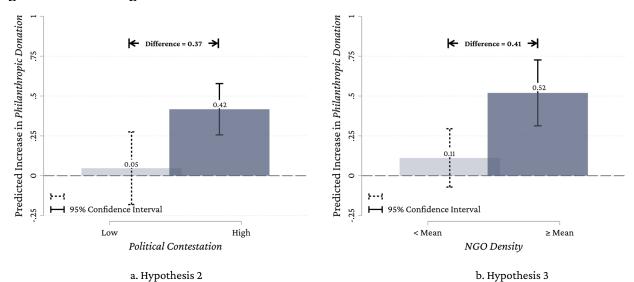
<sup>\*</sup> This figure demonstrates the performance of propensity score matching by plotting the standardized marginal effects of each covariate on the probability of being KMT-connected.

Figure 2. Time Trend of Treatment Effects\*



<sup>\*</sup> This figure illustrates the trend of treatment effects. The dependent variable is *Philanthropic donation*. The focal independent variable is the interaction of *KMT connection* and *Quarterly dummies*.

Figure 3. Moderating Effect Plots\*



a. Hypothesis 2 b. Hypothesis 3 \* The figures display the moderating effects. The dependent variable is *Philanthropic donation*. The focal independent variable is the interaction of *KMT connection* and *Post movement*. Both moderation hypotheses were supported in the subgroup analyses.

# CSR as Hedging Against Institutional Transition Risk: Corporate Philanthropy After the Sunflower Movement in Taiwan

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# **SUMMARY TABLE**

APPENDIX	CONTENT	SAMPLE CHOICE	Note
Appendix 1	Replicating all the primary analyses presented in the tables and figures within the paper.	Firm-year	The coding for the tables and figures in Appendix 1 corresponds with those in the draft. Specifically, "Table A1-X" in the appendix matches "Table X" in the draft, and "Figure A1-X" in the appendix aligns with "Figure X" in the draft. Both sets examine the same hypotheses or questions.
APPENDIX 2	Providing notes for the construction of our measurements.	N.A.	
Appendix 3	Providing additional quantitative evidence and notes on strategies for robustness checks and post-hoc analyses.	N.A.	
APPENDIX 4	Presenting the regression results of robustness checks and post-hoc analyses using firm-quarter-level data.	Firm-quarter	The coding for the tables and figures in Appendix 5 corresponds with those in Appendix 4. Specifically, "Table A5-X" in the appendix matches "Table
APPENDIX 5	Presenting the regression results of robustness checks and post-hoc analyses using firm-year-level data.	Firm-year	A4-X" in the draft, and "Figure A5-X" in the appendix aligns with "Figure A4-X." Both sets examine the same hypotheses or questions.

# APPENDIX 1. MAIN ANALYSES BASED: FIRM-YEAR-LEVEL DATA

TABLE A1-1. Summary Statistics and Correlation Matrix

		Mean	S.D.	1	2	3	4	5	6	7
1	Philanthropic donation	0.78	3.33							
2	KMT connection	0.50	0.50	0.11						
3	DPP connection	0.13	0.34	0.03	-0.01					
4	Post movement	0.51	0.50	0.11	0.00	0.00				
5	Political contestation	0.60	0.49	0.04	0.00	-0.02	0.00			
6	NGO density	3.50	2.03	0.05	-0.02	-0.01	0.00	0.16		
7	Firm size	6.51	1.49	0.12	0.00	0.03	-0.01	-0.07	-0.12	
8	Cash flow	5.03	5.45	0.00	0.00	0.01	0.03	0.02	0.01	0.03
9	ROA	1.80	2.91	0.01	0.00	-0.05	0.01	-0.09	-0.11	0.21
10	Financial leverage	0.40	0.18	0.06	-0.03	0.06	0.01	0.03	-0.03	0.23
11	R&D intensity	0.04	0.09	-0.03	0.02	0.05	0.00	0.05	0.03	-0.17
12	Mainland investment	1.75	4.27	0.05	0.02	0.01	-0.02	-0.05	-0.05	0.24
13	Foreign ownership	0.08	0.12	0.09	0.03	-0.05	0.04	0.01	0.03	0.35
14	Government procurement	1.96	5.36	0.00	-0.05	0.03	0.16	0.05	0.14	-0.03
15	Admirable firm	0.02	0.12	0.03	-0.01	-0.04	0.00	-0.02	-0.01	0.15
16	CSR Scandal	0.06	0.24	0.03	0.02	0.00	0.00	0.04	-0.01	0.09
17	KMT regime	0.69	0.46	-0.04	-0.04	0.00	-0.32	0.16	0.06	0.01
		8	9	10	11	12	13	14	15	16
9	ROA	0.04								
10	Financial leverage	0.04	-0.07							
11	R&D intensity	-0.01	-0.23	-0.33						
12	Mainland investment	0.01	0.02	0.10	-0.04					
13	Foreign ownership	0.07	0.22	0.02	-0.06	0.14				
14	Government procurement	0.02	0.02	0.01	-0.04	0.04	0.00			
15	Admirable firm	0.01	0.06	0.02	0.01	0.03	0.13	0.00		
16	CSR Scandal	0.00	0.00	0.08	-0.07	0.05	0.05	-0.01	0.04	
17	KMT regime	-0.09	0.00	-0.03	0.05	0.05	0.00	-0.03	0.00	-0.01

Note. N = 2,487. The post-matched sample comprised 636 firms, of which 318 were KMT-connected. Correlations with an absolute value greater than 0.04 were statistically significant. The correlation coefficients correspond to the levels of variability from which they were derived.

TABLE A1-2. Estimates of Corporate Philanthropy on the Matched Sample

	n 1'	1	Hypothesis Tes	t	n 11
	Baseline	H1	Н2	Н3	Full
	Model 1	Model 2	Model 3	Model 4	Model 5
Firm size	0.87**	0.84**	0.83**	0.85**	0.84***
	(0.28)	(0.28)	(0.28)	(0.28)	(0.19)
Cash flow	-0.01	-0.01	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
ROA	-0.06**	-0.06**	-0.06**	-0.06**	-0.06***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)
Financial leverage	-0.74	-0.65	-0.73	-0.75	-0.77
	(0.85)	(0.84)	(0.84)	(0.84)	(0.49)
R&D intensity	-0.10	-0.18	-0.04	-0.13	-0.04
	(1.07)	(1.14)	(1.15)	(1.19)	(0.98)
Mainland investment	-0.01	-0.01	-0.01	-0.01	-0.01
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Foreign ownership	2.21	2.48	2.49	2.54	2.51
	(2.21)	(2.28)	(2.29)	(2.31)	(2.25)
Government procurement	-0.05 <sup>**</sup>	-0.04 <sup>**</sup>	-0.04**	-0.05**	-Ò.05 <sup>***</sup>
•	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Admirable firm	0.31	0.28	0.25	0.27	0.26
	(1.39)	(1.40)	(1.42)	(1.42)	(1.44)
CSR Scandal	-0.45	-0.47	-0.47	-0.47	-0.47
	(0.42)	(0.42)	(0.42)	(0.43)	(0.40)
KMT regime	0.15	0.15	0.21	0.23	0.21
	(0.18)	(0.18)	(0.23)	(0.19)	
DPP connection × Post movement	0.08	0.09	0.07	0.10	(0.17) 0.08
Dir comiccion vi occino venicie	(0.34)	(0.33)	(0.33)	(0.33)	(0.46)
KMT connection × Post movement	(0.01)	0.80***	0.22	0.80***	0.40*
KWI Connection × 1 ost movement		(0.22)	(0.29)	(0.18)	(0.16)
Post movement × Political contestation		(0.22)	-0.39	(0.10)	-0.38
1 ost movement × 1 ontical contestation			(0.28)		(0.25)
KMT connection × Post movement			0.97**		0.67**
× Political contestation			(0.36)		(0.18)
Post movement × NGO density			(0.30)	-0.11	0.00
rost movement × NGO density				(0.09)	(0.07)
KMT connection × Post movement				0.44*	0.25***
× NGO density				(0.18)	(0.05)
x NGO density				(0.18)	(0.03)
Constant	-4.54 <sup>*</sup>	-4.61*	-4.49*	-4.69*	-4.49**
	(1.81)	(1.85)	(1.91)	(1.85)	(1.38)
Two-way-fixed	Yes	Yes	Yes	Yes	Yes
Industry-fixed	Yes	Yes	Yes	Yes	Yes
Governance-fixed	Yes	Yes	Yes	Yes	Yes
Observations	2,487	2,487	2,487	2,487	2,487
		-			
Firm counts	636	636	636	636	636

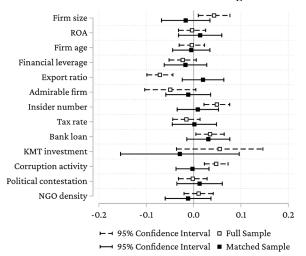
**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels; p < .10, p < .05, p < .01, p < .0

TABLE A1-3. Degree of Political Embeddedness

			Ι	V: Philanthr	opic Donation			
	Panel	Panel A: KMT-connected Firms				Panel B: Matched Sample		
Indicators of embeddedness	Entrenchment	Number	Multiplicity	Power	Entrenchment	Number	Multiplicity	Power
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Controls	Included	Included	Included	Included	Included	Included	Included	Included
Embeddedness	0.61***	0.90***	1.13***	0.67**	0.51**	0.48**	0.46***	$0.47^{**}$
× Post Movement	(0.10)	(0.19)	(0.17)	(0.17)	(0.15)	(0.14)	(0.12)	(0.14)
Two-way-fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Governance-fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,640	1,640	1,640	1,640	2,487	2,487	2,487	2,487
Firm counts	423	423	423	423	636	636	636	636
Adjusted R <sup>2</sup>	0.51	0.51	0.52	0.51	0.45	0.45	0.45	0.45

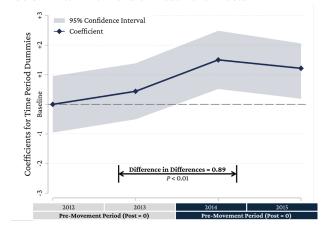
**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels;  $^{\dagger}p$  < .10,  $^{*}p$  < .05,  $^{**}p$  < .01,  $^{***}p$  < .001. Panel A includes only the KMT-connected firms; Panel B includes both the KMT-connected firms that are matched with non-KMT-connected firms and their matched non-connected firms. We standardized the continuous variables in the interaction terms.

FIGURE A1-1. Balance Before and After Matching



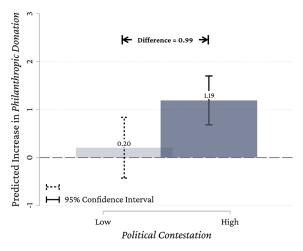
**NOTE.** This figure demonstrates the performance of propensity score matching by plotting the standardized marginal effects of each covariate on the probability of being KMT-connected.

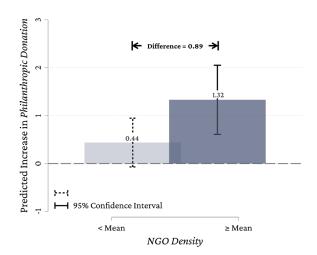
FIGURE A1-2. Time Trend of Treatment Effects



**Note.** This figure illustrates the trend of treatment effects. The dependent variable is *Philanthropic donation*. The focal independent variable is the interaction of *KMT connection* and *Quarterly dummies*. Using all 2014 observations as the reference period would lose significant information, so we use the first quarter of 2014 as the reference and aggregate quarterly effects into annual.

FIGURE A1-3. Moderating Effect Plots





a. Hypothesis 2 b. Hypothesis 3

**Note.** The figures display the moderating effects. The dependent variable is *Philanthropic donation*. The focal independent variable is the interaction of *KMT connection* and *Post movement*. Both moderation hypotheses were supported in the subgroup analyses.

#### **APPENDIX 2. MEASUREMENT CONSTRUCTION**

#### Note A2-1. Measurement of Political Connection

To identify formal ties, we matched the names of businessmen and politicians. For the names of businessmen, we followed the *Securities Exchange Act of Taiwan (SEAT)* and Zhu and Chung (2014) and included directors, supervisors, senior executives, and shareholders with more than 10% of the shares. We collected these names from the Department of Commerce<sup>1</sup> and TEJ.

For the names of politicians, following Zhu and Chung (2014), we mainly considered two types of political leaders: government officials and party figures. Political leaders were members of the Central Committees, legislators-at-large, representatives of the National Assembly, and high-level government officials (deputy ministerial level or above); we excluded low-level politicians, such as county councilors. In Taiwan, government officers are either appointed or elected. The personnel appointments in the Presidential Office, Executive Council, Judicial Council, Control Council, Examination Council, and local governments are documented in Presidential Decrees, which cover personnel transfers from the county level to the central level and official moves from the section level to the state level. We obtained 7,342 Presidential Decrees and acquired 149,902 appointment and removal notices between 1949 and 2016 from the Office of the President<sup>2</sup>. When matching corporate and political leaders' names, we first considered namesakes by tracing biographies and news in Factiva and Google. For example, the CEO of Ace Pillar, Chen Wen-te, should not be confused with the cognominal vice-minister of the Council of Agriculture, who had been on the Agriculture Committee since graduating from university in 1981. Given the substantial associations that we were interested in, we then verified whether they had held positions at the deputy ministerial level or above. Another reason to only consider higher-ranking positions was to make it possible to confirm their party affiliations.

For the names of party figures, we focused on central committee members, legislators-at-large, and representatives of the National Assembly, who were elected or appointed within the parties. From the official websites of the KMT<sup>3</sup>, and the DPP<sup>4</sup> as of 2016, we collected 547 KMT and 285 DPP legislators-at-large, 231 KMT and 191 DPP assembly members, and 2,322 KMT and 191 DPP central committee members. We carried out a similar process to match party figures and corporate leaders.

We then used four additional data sources to identify the informal ties between corporate and political leaders. First, we searched the corporate/industrial news, political/general news, commodity/financial market news, and economic news in Factiva using the keywords of corporate leaders' names, KMT/DPP, as well as "relationship", "business-state relationship", "henchman", and "crony". Factiva includes major newspapers, newswires, trade journals, newsletters, magazines, and transcripts in Taiwan and has been widely used in financial and accounting studies (Huang and Hilary, 2018). We also surveyed articles in *Global Views Monthly*<sup>5</sup>, where we found various in-depth reports on this topic. Second, we read articles and books by scholars focusing on the political-business system of Taiwan, for example, the works of Chou (1995), Huang (2004), Lee and Velema (2014), and Zhu (2019). Elite high schools play an important role in social connections, so we checked the alumni lists of elite high schools. Third, we retrieved the historical web pages of giant business associations and clubs to collect the membership information <sup>6</sup>. Finally, we collected 525 biographies of entrepreneurs from Wikipedia and used Google to double-check the accuracy of the data.

We considered three types of informal ties: (1) blood and marital relations, (2) friendships, classmates, and hometown relationships, and (3) joint memberships in social clubs. We documented a firm as having blood or marital ties when one of its corporate leaders had a blood relationship or relationship by marriage with a political leader. This kind of nexus profoundly impacts business development in Confucian Familism regions. The second type of informal tie focused on friendships, classmate relationships, and hometown relationships. For example, Kenneth Yen from Yulon Motor was well-known as a close friend of then-president Ma Ying-jeou. For the last type of tie, we considered whether corporate and political leaders were reported to be members of the same clubs. For example, the Third Wednesday Club was initiated and organized by a KMT bigwig, Chiang Pin-kung. Its name came from the regular gatherings held on the third Wednesday of every month. The founder of the Far Eastern Group, Douglas Hsu, and the founder of Foxconn, Terry Gou, were both directors of this club. Given the infrequency of changes in political connections within our sample (as demonstrated in Table A4-1), and to ensure rigor and mitigate potential bias arising from treatment effect heterogeneity (Liu, Wang, and Xu, 2024), we adopted the approach of Hu et al. (2020), Green and Homroy (2022), and Lim, Kim, and Agarwal (2023) to define *KMT connection* as a binary variable indicating the presence of personal connections between a corporation and the KMT before the movement period.

<sup>&</sup>lt;sup>1</sup> Retrieved from https://findbiz.nat.gov.tw/ on July 24, 2020.

<sup>&</sup>lt;sup>2</sup> Retrieved from https://www.president.gov.tw/ on August 18, 2020.

<sup>&</sup>lt;sup>3</sup> Retrieved from http://www.kmt.org.tw/ on July 14, 2020.

<sup>&</sup>lt;sup>4</sup> Retrieved from https://www.dpp.org.tw/ on July 14, 2020.

<sup>&</sup>lt;sup>5</sup> Retrieved from https://www.gvm.com.tw/ on July 18, 2020.

<sup>&</sup>lt;sup>6</sup> Retrieved from https://web.archive.org/ on August 18, 2022.

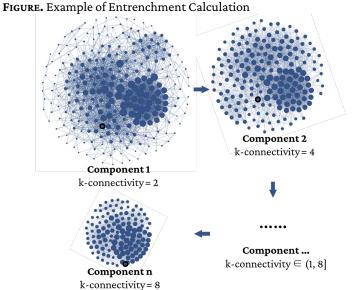
#### INSTITUTIONAL TRANSITION RISK & CSR

We excluded all SOEs from our sample. Article 3 of the *Administrative Law of State-owned Enterprises (ALSE)* of Taiwan defines SOEs as firms owned by the government or firms whose chairmen were by law appointed by the government. The *ALSE* requested these firms to report to and be interrogated by the Legislative Council and were responsible for the government departments they were connected to. This means that even though the government may not hold the majority shares of some SOEs, SOEs' mission is to serve the government (Claessens, Djankov, and Lang, 2000). Theoretically, what we were interested in were firms that actively build, leverage, and rely on the government instead of those with policy goals that confound our results; thus, we followed Jia (2014) and Zhang, Marquis, and Qiao (2016) and excluded 31 SOEs defined by *ALSE* from our sample. However, when including them as either a treatment or a control group, we received similar results.

#### **Note A2-2.** Measurement of *Entrenchment*

Measure of Entrenchment. We employed the concept of entrenchment to theorize the extent of difficulty for a focal firm connected to the KMT to disengage from the KMT-affiliated network. In alignment with this concept, we adopted the entrenchment measure proposed by Moody and White (2003), Benton (2017), and Benton and Cobb (2019), which quantifies a firm's embeddedness within a network and this network's robustness against dissolution. In our context, the calculation involves three steps: identifying all potential components that are constituted by KMT-connected firms and in which the focal firm is embedded, calculating the cohesion index for each network component, and using the maximum value of the cohesion index as the focal firm's entrenchment value. Specifically, first, we mapped out networks among all KMT-connected firms based on board and executive connections, commonly employed to capture inter-firm connections (refer to Mizruchi, 1992; Burris, 2005; Domhoff, 2009; and in the Taiwanese context, see Lee and Velema, 2014). Through this step, we obtained a series of subnetworks, constituted by the links among any number of KMT-connected firms. We referred to each possible associative network as a potential component. Second, for each focal firm, we utilized kconnectivity to compute the cohesion index of every component. K-connectivity refers to the minimum number of nodes that must be removed to disconnect the remaining nodes from each other, and mathematically, it is also equal to the number of node-independent pathways between each pair of nodes in the component (Benton and Cobb, 2019). Intuitively, a higher k-connectivity implies that it is more difficult for the focal firm to disengage from a network component, and it also suggests that the component is more robust to changes among other members within the component. This observation is logical, given that embeddedness is determined not only by the network position of the focal node but also by the fracturing and cohesion of other nodes in the network (refer to Figure A1 by Benton and Cobb 2019 for an illustration). Finally, we calculated the entrenchment using the highest cohesion index across all potential components. A company can be part of various components within a network, each displaying a distinct degree of embeddedness and cohesion. Yet, a firm's entrenchment score is the k-connectivity of the most cohesive component(s) to which the firm belongs, as defined by Moody and White (2003), Benton (2017), and Benton and Cobb (2019).

**Real-world Example.** We presented a real-world example of Corporation N in the figure below. Corporation N is a high-tech company with board members from the KMT Central Committee and the Legislative Yuan. We plotted three examples among the numerous possible components that Corporation N was embedded in. After examining all possible components, we determined that Corporation N's entrenchment value is 8. To elucidate, disassembling component n requires the removal of at least eight firms, indicating that Corporation N is entrenched in a component where every pair of firms is interconnected by a minimum of eight node-independent pathways.



Entrenchment of Corporation N ● = 8

Note. The figure illustrates the entrenchment calculation process. Corporation N is embedded in several components, where components with lower k-connectivity values are nested within those with higher k-connectivity values. The k-connectivity value of the highest k-connectivity component that Corporation N is embedded in defines its entrenchment value.

**Package and Validation.** We used the Python package NetworkX to calculate the value of *Entrenchment*. In algorithms, traversing every potential component is not a necessity. Moody and White (2003) and Benton and Cobb (2019) observed that highly cohesive components with a focal firm might be hierarchically nested in less cohesive ones. This is exemplified in Figure A3-1, component 2 within component 1. By leveraging the hierarchical and nested structure of network components, our initial iterations focus on pruning the most weakly connected nodes, resulting in tightly knit sets. Subsequent iterations delve deeper into the network's cohesive structure. This strategy significantly enhances computational efficiency. This approach is facilitated by the application of the Whitney embedding theorem in NetworkX.

We performed validation tests to assess whether our measure accurately captured the extent to which a firm was intricately entrenched within the KMT-centered network. For firms connected to the KMT, a one-standard-deviation increase in entrenchment corresponded to an 8.27% increase in the probability of engaging in collusive cases that are associated with KMT politicians (p = 0.000). This increase also led to a 40.53% increase in investments from the KMT (p = 0.003). A higher level of entrenchment posed greater challenges for KMT-connected firms seeking to disentangle themselves from the KMT network (p = 0.048) and decreased the probability of establishing new ties with the DPP postmovement (p = 0.089). The validity of our measure was confirmed by a strong correlation (coefficient = 0.59; p = 0.000) between *Entrenchment* and connection *Multiplicity*, signifying the connections that a firm maintains (e.g., links with the central government, local government, KMT party Central Committee, Legislative Council).

Our calculation of KMT-connected firms' entrenchment excluded all non-KMT-connected firms and treated their values as missing. However, as reported in Table 3, treating their entrenchment values as zero led to similar results. To ensure rigor, we treated the values of the entrenchment of non-connected firms as missing and limited the KMT network to firms with direct connections to the KMT.

# APPENDIX 3. QUALITATIVE EVIDENCE AND NOTES FOR ROBUSTNESS CHECKS AND POST-HOC ANALYSES

Note A3-1. Public Statement Issued by the Sunflower Movement Protestors (Chinese Version)

# 318 青年佔領立法院 反對黑箱服貿行動宣言

(In Traditional Chinese)

我們不願看見台灣青年十年後還過著 22K 的生活!我們相信,台灣是個可以讓青年實現創業夢想,開咖啡廳、開個人公司,可以靠自己打拼就能變「頭家」的創業天堂。

根據學者專家對服貿協議所做的影響評估,雖然政府宣稱台灣只對中國開放 64 項服務業,但這 64 項卻包含上千種行業,從雜貨店、在地小吃店、麵包店、文具店、理髮店、廣告設計等等,我們的食衣住行、生老病死全都包含在開放項目清單裡。

未來,台灣的中小企業、微型企業,即將面臨資金充裕、整合上中下游一條龍模式的中資企業來台競爭,不管是上班族、小農、工人、商人,生存都將面臨威脅。除了個人飯碗難保,台灣對中國開放入口網站經營、網站代管,以及印刷和出版發行通路,讓我們的言論自由受到嚴重威脅。

反對服貿,不是「逢中必反」,服貿最大的問題在於,自由化下只讓大資本受益,巨大的財團可以無限制的、跨海峽的擴張,這些跨海峽的財團將侵害台灣本土小型的自營業者。那個我們曾經引以為傲的中小企業創業天堂,未來將被一個、一個跨海資本集團併購。服務貿易協定的本質,和 WTO、FTA、TPP 一樣,這些國與國的經濟協議,都是在去除國家對人民的保護。服貿協議,不管統獨、不管藍綠,這是一個少數大資本吞噬多數小農小工小商的階級問題,更是所有台灣青年未來都將面臨的嚴苛生存問題。

我們強烈抗議,馬英九為首的少數執政者挾持國會、粗暴通過服貿出賣台灣未來。3月17日,國民黨立委張慶忠在一片混亂中,搶下麥克風、用30秒宣布會議決議:「出席人數52人,已達法定人數,開會,進行討論事項,海峽兩岸服貿協議已逾3個月期限,依法視為已經審查,送院會存查,散會。」完全背棄先前承諾人民願意「逐條審查」的決議。如果今天國民黨可以如此粗暴通過這樣影響青年、影響全民的協議,完全不受國會監督、沒有國會實質審查,後續影響台灣經濟自主更為嚴重的自經區、貨貿也將比照辦理。台灣未來不能如此被粗暴斷送。

我們要強調,我們不是不願意接受挑戰、不是不願意面對競爭的青年,我們只是不願意面對這種不公平競爭、我們不願看見我們未來的生活掌控在這些少數權貴統治集團手裡、我們不願我們的工作都被大企業家、被跨海峽資本家控制;我們要掌握我們自己的未來,我們要的是一個給年輕人公平發展和競爭的環境與機會!

各位青年朋友,這些由大財團、大企業、少數執政者所組成的跨海峽政商統治集團,隨時可以拋棄台灣, 他們隨時可以轉往世界上任何一處勞動力更廉價的地方;他們就像吸血鬼一樣,吸乾一個國家青年的血汗,就 開始找尋其他國家青春的肉體。各位台灣的青年們,台灣是我們生活的土地、這是我們賴以維生的地方。為了 阻止這個不公不義的經貿協議、為了阻止這個踐踏制度、威權復辟的政黨,請跟我們一起站出來,請跟我們一 起站出來守護我們的台灣!

Note A3-2. Public Statement Issued by the Sunflower Movement Protestors (English Version)

# ${\bf Declaration\ of\ the\ 318\ Occupation\ of\ the\ Legislature:\ Oppose\ the\ Black-Box\ CSSTA}$

(English Translation by Authors)

We do not want to see, ten years from now, Taiwanese young people still living a 22K life! We believe that Taiwan should be a paradise where young people can pursue their entrepreneurial dreams to open a coffee shop, start a company, rely on one's self to work hard, make a living, and be one's own boss.

According to evaluations of the impact of the CSSTA made by scholars and experts, although the government claims that Taiwan will only open up 64 service industry sectors to China, these 64 sectors encompass thousands of businesses ranging from grocery stores, bakeries, stationery stores, hair salons, advertising, and other services covering the basic necessities of life.

In the future, Taiwan's small and medium-sized enterprises will soon face competition from well-funded Chinese enterprises that integrate up- and down-stream operations. No matter whether you are a white-collar, farmer, worker, or businessman, everyone will be under threat. Apart from the difficulty of preserving personal livelihood, Taiwan's open access to and use of the Internet, press, and publishing services will be limited, leading to a serious threat to our freedom of speech.

The opposition of the CSSTA is by no means opposing anything related to China. The biggest problem of the CSSTA is that under conditions of free trade, big corporations reap the most benefits and expand unrestrictedly across the straits, which will hurt small local business owners in Taiwan. The debate on CSSTA is far beyond the contestation between proindependence/pro-unification or pan-Blue/pan-Green. Our once-proud paradise for small and medium-sized enterprises would be carved up by these cross-strait consortia piece by piece. Fundamentally, the CSSTA is like the WTO, FTA, and TPP, removing a country's protections for its residents. The debate on CSSTA is far beyond the contestation between proindependence/ pro-unification or pan-Blue/ pan-Green. It is about a class struggle issue in which many political and capital elites swallowed farmers, workers, and small businesses, and a severe survival issue that every Taiwanese young person may encounter in the future.

We strongly oppose the small number of rulers, led by Ma Ying-jeou, to manipulate the Legislature, forcefully pass the CSSTA, and sell out Taiwan's future. On March 17th, KMT legislator Chang Ching-chung grabbed the microphone amid the chaos and within 30 seconds announced that the meeting had come to a resolution, "The presence of 52 legislative members has met the legal requirements to start the meeting. The discussion of the CSSTA has already met the three-month requirement, as a result, the oversight of the agreement has been completed and sent to the Legislature for a record. The meeting is now over." With no compunctions whatsoever, Chang deprives the people's right to oversight. That the KMT could railroad an influential policy without any oversight from the Legislature, it might behave in the same way for other more important policies in the future. Taiwan's future cannot be so rudely ruined.

We have to strongly emphasize that we are not a group of young people who are unwilling to embrace challenges or competition. We just don't want to face such unfair competition, and we don't want to see our future livelihood in the hands of a few powerful ruling elites, or our career in the hands of large corporations and cross-strait capitalists. We need to take control of our future and strive for a future that allows for fair development and competition.

Dear young friends: financial tycoons, large corporations, and political leaders have formed a cross-strait power elite group. They could, at any time, abandon Taiwan, and switch to somewhere offering cheaper labor, and, like a vampire, drinking the blood and sweat of the youth and moving on to look for new prey in another country. Dear young Taiwanese: Taiwan is the land that we live on, and we continuously rely on to live. To stop this unjust trade agreement, to stop this authoritarian political party that has oppressed us and trampled our rights, please stand together with us, and let's step forward to protect our Taiwan!

#### INSTITUTIONAL TRANSITION RISK & CSR

NOTE A3-3. Details of Robustness Checks and Post-hoc Analyses

We conducted several robustness checks and post-hoc analyses to strengthen the validity of our results and rule out alternative explanations. The details of these checks are reported here.

**Subgroup Comparison.** According to Shaver (2019) and Giesselmann and Schmidt-Catran (2022), the fixed effect interaction estimator might be biased as it confounds within-firm and between-firm variances. Following Shaver's (2019) recommendation, we employed subgroup comparison to re-evaluate moderating effects. As shown in Appendix Table A4-2, our hypotheses gained support.

Alternative Measurements. We also measured philanthropic donations using count and dummy variables to account for potential biases from log transformation and skewed data. Due to Taiwan's immature civil society, corporate donations are limited in both frequency and size, with politically connected firms especially likely to prioritize government relations over social contributions. In our sample, about 13 percent of firms made donations. The quarterly donation probability among politically connected firms was 4 percent. The sparsity reflects Taiwan's emerging but limited civil society. Following Cohn, Liu, and Wardlaw (2022) and Dzudzor, Gerber, and Asante (2024), first, we addressed sparse outcomes using a count measure with a fixed-effects Poisson estimator (Cohn, Liu, and Wardlaw, 2022; Chen and Roth, 2024), which offers an efficient and robust approach for handling sparse count variables with multiple fixed effects included. Models 1-3 of Table A4-3 demonstrate that our results are robust. We then calculated effect sizes. Marginal predictions show that KMT-connected firms had a quarterly donation increase of 151,828 NTD post-movement, significantly (p = 0.085) above the stable donation trend of the control group. Second, we used a dummy variable to indicate whether firms made donations, which captures the behavioral change of either donating or not donating. We applied a linear probability model to accommodate multiple fixed effects. As shown in Models 4-6 of Table A4-3, this approach reveals a behavioral shift in donations of KMT-connected firms following the Sunflower Movement. Nevertheless, our main analysis aligns with recent studies on donations or using quarterly data (e.g., Lee et al., 2021; Lewis and Carlos, 2022; Ballesteros and Magelssen, 2022; Adena, Hakimov, and Huck, 2024), featuring a similar skewed distribution and measurement method<sup>7</sup>.

Alternative Matching Method and Estimator. We used an alternative matching method and estimator. First, we also implemented coarsened exact matching on the same dimensions and matching periods as the PSM. Table A4-4 shows that all of our results remain consistent. Second, given the infrequency of changes in political connections within our sample, we adopted the approach of Lim, Kim, and Agarwal (2023) to define KMT connection as a binary variable indicating the presence of personal connections between a corporation and the KMT before the movement period. Here, we tested whether our results would change if we considered the switching back and forth of the treatment, i.e., the tie dissolution and formation. We applied the fixed effects counterfactual (FEct) estimator developed by Liu, Wang, and Xu (2024) and used a time-variant measure of KMT connection. This alternative estimator is particularly adept at estimating the treatment effect for a group receiving time-variant treatment. Figure A4-4 demonstrates that the treatment effect size (coefficient = 0.31; p = 0.002) estimated by the FEct estimator was consistent with our main analyses (coefficient = 0.28; p = 0.001), indicating that our findings remain robust.

Alternative Explanations. The political sensitivity of firms might explain our findings, as firms that are sensitive to the external environment may engage in both political activities and corporate giving when the environment is volatile. We used placebo tests to address this concern (reported in Models 1–2 of Appendix Table A4-5). First, we constructed a pseudo shock of the Gay Pride and LGBT Protest in October 2012, which aimed at changing the same-sex marriage policy but was not particularly anti-regime. We found that KMT-connected firms did not donate more after this placebo protest. Second, we defined firms whose CARs were negatively impacted by the movement as highly politically sensitive (Fisman, 2001; Pástor and Veronesi, 2012). In line with our findings above, political sensitivity did not increase firms' donations after the movement. This result also suggests that the increased donations were not led by the direct impact of the movement. Based on these three placebo tests, we concluded that the increase in KMT-connected firms' donations after the Sunflower Movement was not driven by these firms' political sensitivity.

The second alternative explanation is anti-Mainland China sentiment, considering the potential ties of KMT-connected firms to Mainland China. In Models 3–4 of Appendix Table A4-5, we ruled out this explanation by finding that firms with Wai-sheng-jen (WSJ) origins—controlled by immigrants from Mainland China or their descendants—but without KMT connections, and firms profiting from Mainland China, did not increase their donations after the Movement.

The third alternative explanation is that firms were directly threatened by the Sunflower Movement and made donations to protect themselves against public pressure rather than the transitional risks it introduced. The public can create pressure on firms either by protesting or challenging the pro-corporation policies (Soule, 2012; Leitzinger, King, and Briscoe, 2018). To capture the impact of the protest, we executed a comprehensive search of the news in Factiva with the keywords of firm names and "Sunflower." After reviewing all the results, we identified four firms targeted by activists, with all protests triggered by dissenting corporate leaders. We extended our search to Facebook and PTT, Taiwan's largest bulletin board system and a significant online discussion platform during the movement but did not find any new cases.

<sup>&</sup>lt;sup>7</sup> For instance, the study by Adena et al. (2024) used a sample in which about 3.8 percent of donations were non-zero and employed the log-transformed donation amount along with OLS regression to handle the skewed distribution.

After excluding these firms from our sample, the treatment effects remained significant. Then, we excluded 272 firms that had scandals exposed after the movement due to their risk of attracting protests. The treatment effects held when we excluded these firms. Finally, we used event studies to identify firms with negative market responses to the movement. By excluding them from our sample, we isolated both observable and unobservable direct influences from the movement. Our main results hold.

To evaluate the impact of challenges to pro-corporation policies, we first assumed that firms related to Mainland China benefited more from these policies. We excluded firms with prior investments or profits from Mainland China from our sample. Our findings showed consistent treatment effects. We then conducted event studies to identify firms that benefited from the CSSTA, focusing on the CARs calculated around June 21, 2013, the date when the CSSTA was signed and its details were disclosed. After excluding these firms, our results remained robust. Lastly, we matched small KMT-connected firms, which benefited less from the CSSTA, with large non-KMT-connected firms, which benefited more. The significant effect confirmed that challenges to pro-big-firm policies did not drive our findings. Appendix Figure A4-5 shows that even when isolating the direct impact of the movement on corporate operations, our findings hold, ruling out this explanation.

The fourth alternative explanation is that the 2014 local elections drove the increase in donations. However, our analyses show that the Sunflower Movement posed substantial transitional risks for KMT-connected firms, with the 2014 local elections serving as a follow-up event that reinforced these risks. This finding substantiates the presence of transitional risks and rules out local elections as the primary driver of the donation increase. Specifically, we found that the Sunflower Movement's lasting influence on politics affected corporate behavior by inspiring many activists to participate in politics, such as the 2014 local elections, shaping the political landscape. Figure A4-6 shows that the rise in donations by KMT-connected firms intensified with the involvement of Sunflower activists in these elections.

We also found that it was the 2016 regime change, not the 2014 local elections, that fulfilled these risks by altering the political privileges of KMT-connected firms. While the 2014 local elections did not significantly affect these privileges, the 2016 regime change reshaped the political landscape and introduced significant risks for these firms. Appendix Figures A4-7a and A47b show that government procurements and tax rates for KMT-connected firms remained stable after the 2014 elections but were negatively impacted following the 2016 regime change. Additionally, Appendix Figure A4-7c illustrates that post-2016, KMT investments in listed firms significantly declined, indicating a shift in political influence.

**Placebo Test.** To evaluate whether our treatment effect is attributable to random variation or alternative explanations arising from unobserved factors, we randomly assigned 200 pseudo-treatment groups and replicated the matching and estimation methods used in our primary analyses. Appendix Figure A4-8 shows that the treatment effects on most random samples were insignificant and thus unlikely to have been driven by other unobserved factors.

<sup>&</sup>lt;sup>8</sup> We estimated KMT investments in publicly listed companies by calculating the shareholdings of the seven major KMT-affiliated holding companies, including Central Investment, Kwang Hua Investment, Chi Sheng Industry, Asia Pacific Holdings, Ching Te Investment, Chien Hua Investment, and China Investment, and firms where the KMT holds over 95% of shares, such as Chiloo Industries Inc.

#### INSTITUTIONAL TRANSITION RISK & CSR

# APPENDIX 4. RESULTS OF ROBUSTNESS CHECKS AND POST-HOC ANALYSES: FIRM-QUARTER-LEVEL DATA

TABLE A4-1. Failure Analyses of Connection Portfolios

	Failure Event: Cutting off KMT Ties	Failure Event: Increasing DPP Ties
	Model 1	Model 2
Controls and first-order terms	Included	Included
Post movement	Hazard ratio = $0.45^*$ (0.38)	
	p for cutting KMT ties = 0.019	
KMT connection × Post movement		Hazard ratio = 0.28* (0.71)
		p for forming DPP ties = 0.037
Fixed effects	Year, quarter-of-year, ind	ustry, governance-fixed
Observations	6,323	9,718
Firm counts	423	636
$Wald  \chi^2$	172.42	196.36

**Note.** Robust standard errors are in parentheses;  $^{\dagger}p < .10$ ,  $^{\star}p < .05$ ,  $^{\star\star}p < .01$ ,  $^{\star\star\star}p < .001$ . Model 1 used the KMT-connected sample; Model 2 used one-to-one without replacement propensity score matching. The dependent variables were connection portfolio changes. Complementary log-log estimators were used to analyze the hazard ratios of failures. Model 1 shows that KMT-connected firms did not cut KMT ties in the post-movement period, and Model 2 shows that KMT-connected firms became less likely to increase their DPP connections in the post-movement period.

TABLE A4-2. Subgroup Analyses

	Political C	ontestation	NGO Density		
	Low	High	< Mean	≥Mean	
	Model 1	Model 2	Model 3	Model 4	
Controls	Included	Included	Included	Included	
KMT connection	0.05	0.42***	0.11	0.52***	
× Post movement	(0.11)	(0.08) 	(0.09) 	(0.10)	
Difference in effects	0.3	37***	0.4	11***	
Fixed effects		Two-way, industry	y, governance-fixed		
Observations	3,865	5,853	5,670	4,048	
Adjusted R <sup>2</sup>	0.18	0.14	0.18 0.1		

**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels; p < .10, p < .05, p < .05,

TABLE A4-3. Measuring Donations Using Count and Dummy Variables

	Co	unt Measurem	ent	Dummy Measurement		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Controls	Included	Included	Included	Included	Included	Included
IZM ATT	$0.64^{\dagger}$	-0.61	0.50	0.02***	0.01	0.02***
KMT connection × Post movement	(0.34)	(0.63)	(0.39)	(0.01)	(0.01)	(0.00)
Description Delicitude of the contraction		-1.42 <sup>*</sup>			-0.01 <sup>†</sup>	
Post movement × Political contestation		(0.66)			(0.01)	
KMT connection × Post movement		1.84**			0.02**	
× Political contestation		(0.66)			(0.01)	
Doot on annual vivia NCO don sites			-0.27			-0.00
Post movement × NGO density			(0.26)			(0.00)
KMT connection × Post movement			0.51 <sup>†</sup>			0.01**
× NGO density			(0.28)			(0.00)
Fixed effects		Two	-way, industry	, governance-	fixed	
Observations	9,718	9,718	9,718	9,718	9,718	9,718
Pseudo/Adjusted R <sup>2</sup>	0.20	0.21	0.21	0.16	0.16	0.16

**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels; p < 0.10, p < 0.05, p < 0.01, p < 0.01, p < 0.01. All controls from the main analyses are included. The estimations of Models 1–3 differ from the main analyses in two ways: first, the dependent variable is the actual amount of philanthropic donations rather than log-transformed values; second, the model employs Poisson pseudo-maximum likelihood estimation rather than OLS. The estimations of Models 4–6 differ in their use of a dummy variable indicating whether firms made donations during a specific time period.

TABLE A4-4. Coarsened Exact Matching

	Model 1	Model 2	Model 3
Controls	Included	Included	Included
KMT connection × Post movement	0.32*	0.16***	0.31***
	(0.11)	(0.02)	(0.02)
Post movement × Political contestation		-0.06	
		(0.07)	
KMT connection × Post movement		$0.26^{\dagger}$	
× Political contestation		(0.12)	
Post movement × NGO density			-0.02
			(0.02)
KMT connection × Post movement			0.21***
× NGO density			(0.01)
Fixed effects	Two-wa	ay, industry, governan	ce-fixed
Observations	15,575	15,575	15,575
Adjusted R <sup>2</sup>	0.16	0.16	0.16

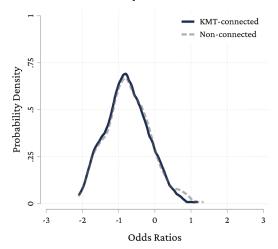
**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels; p < .10, p < .05, p < .01, p < .0

TABLE A4-5. Alternative Explanations and Placebo Tests

	Politica	al Sensitivity	Anti-Mainland Sentiment			
	Pseudo-shock	Pseudo-treatment	Pset	ıdo-treatment		
	LGBT Protest	Negative CAR	WSJ origin	Profit from Mainland		
	Model 1	Model 2	Model 3	Model 4		
Controls	Included	Included	Included	Included		
KMT connection	-0.09					
× Post LGBT	(0.12)					
Pseudo-treatment	,	-0.03	-0.16	0.04		
× Post movement		(0.04)	(0.20)	(0.05)		
Fixed effects		Two-way, industry, governance-fixed				
Observations	3,872	3,403	1,439	7,220		
Adjusted R <sup>2</sup>	0.13	0.14	0.14	0.12		

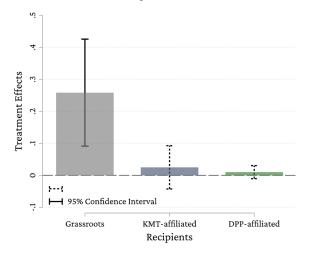
**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels;  $^{\dagger}p$  < .10,  $^{*}p$  < .05,  $^{**}p$  < .01,  $^{***}p$  < .001. The dependent variable is *Philanthropic donation*. We constructed the sample by matching the treatment groups with control groups using the matching strategy as our main analysis.

FIGURE A4-1. Kernel Density Distribution after Matching



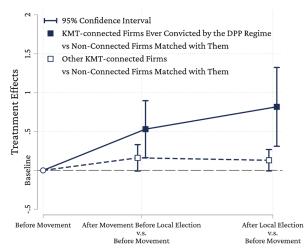
**Note.** These figures show the performance of propensity score matching by plotting the kernel density of the probability of being treated. The overlap between the treatment and control groups in the matched sample indicates the high quality of our matching.

FIGURE A4-2. Donation Recipients



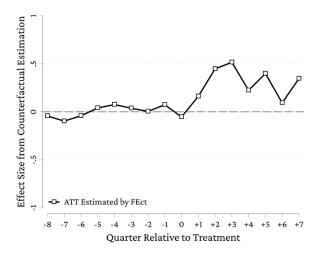
**Note.** This figure examines the recipients of donations. The key independent variable is the interaction of *KMT connection* and *Post movement*. Donations related to the Sunflower Movement and grassroots and recipients with neither KMT nor DPP connections displayed significance. The data on board members of recipients were collected from the Judicial Yuan.

FIGURE A4-3. Collusive Cases and Donation Increase



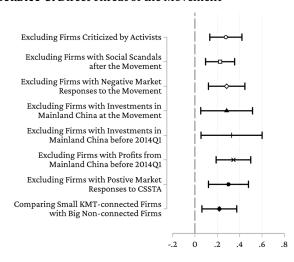
Note. This figure illustrates that KMT-connected firms that had been convicted for collusion donated more than other KMT-connected firms after the movement. This disparity is further enlarged by the local election, which strengthened the signal of regime turnover. As collusive KMT-connected firms faced higher transitional risk, the enlarged donation disparity supports risk hedging as the mechanism behind KMT-connected firms' philanthropic donations. The dependent variable is *Philanthropic donation*, while the primary independent variables are the interactions between dummies indicating specific types of firms and dummies indicating specific periods. We matched multiple treatment groups to the control group using marginal mean weighting through stratification.

FIGURE A4-4. Estimations Based on Time-variant vs. Time-invariant KMT Connection



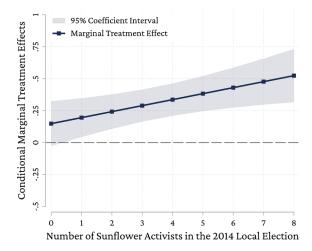
**Note.** This figure shows the effects estimated by the alternative estimator developed by Liu, Wang, and Xu (2024), which is adept at estimating the treatment effect for a group receiving time-variant treatment. The average effect of treatment on the treated (ATT) is 0.31 (p = 0.000).

FIGURE A4-5. Direct Threat of the Movement



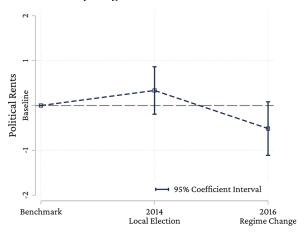
**Note.** This figure assesses if direct threats from the Sunflower Movement caused KMT firms' donation increases. Capped spikes indicate the 95% coefficient intervals. The treatment effects held across all panels, suggesting that the Sunflower Movement was the driving factor of KMT firms' *Philanthropic donation* increases.

FIGURE A4-6. 2014 Local Election Acted as a Harbinger of Transitional Risk

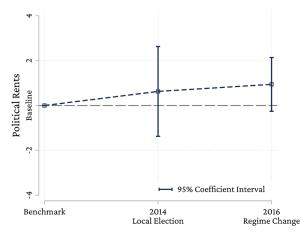


Note. This figure investigates the impact of the Sunflower Movement on the local political landscape during the 2014 local election, thereby influencing the response of KMT-connected firms to the election. The dependent variable is *Philanthropic donation*; the focal independent variable is the interaction of the *Post-2014 election*, the *KMT connection*, and the number of activist candidates in the election. The results indicated that the election served as a subsequent event to the Sunflower Movement in driving the increase in donations.

FIGURE A4-7. Comparing Risks Associated with 2014 Local Election and 2016 General Election

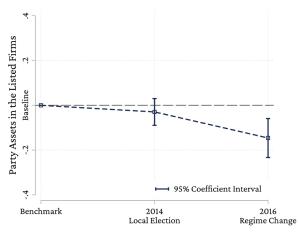


#### Benchmark: Between the Sunflower Movement and local election Benchmark: Between the Sunflower Movement and local election



b. KMT-connected Firms' Tax Rates

#### a. KMT-connected Firms' Government Procurements

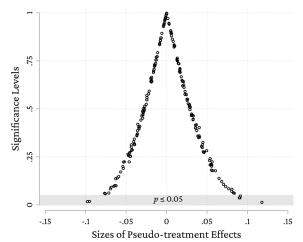


Benchmark: Between the Sunflower Movement and local election

c. KMT's Control of All Listed Firms

NOTE. Figures a and b show changes in government procurement contracts and tax rates for KMT-connected firms, while c displays changes in the KMT's party asset investments in all listed firms. Capped spikes indicate the 95% coefficient intervals. In Figures a and b, periodspecific dummies multiplied by KMT connection serve as the independent variable. After the 2014 local election, government procurement contracts and tax rates remained unchanged, but the 2016 regime change adversely impacted political rents. In Figure c, the dependent variable is log-transformed investments from the KMT with data from IPASC and kmt.exposed. The KMT's investments in all firms decreased after the 2016 regime change.

FIGURE A4-8. Treatment Effects of Pseudo-treatment Groups



NOTE. This figure indicates that the Movement's impact on KMT-connected firms was not contaminated by unobserved factors. Each circle represents a random sample. We conducted 200 pseudo-treatment group assignments and replicated our primary analysis methods. Treatment effects in most random samples were insignificant and clustered around 0, notably lower than the effect observed in the KMT-connected firms' sample.

# APPENDIX 5. RESULTS OF ROBUSTNESS CHECKS AND POST-HOC ANALYSES: FIRM-YEAR-LEVEL DATA

TABLE A5-1. Failure Analyses of Connection Portfolios

	Failure Event: Cutting off KMT Ties	Failure Event: Increasing DPP Ties
	Model 1	Model 2
Controls and first-order terms	Included	Included
Post movement	Hazard ratio = $0.38^* (0.55)$	
	p for cutting KMT ties = 0.039	
KMT connection × Post movement		Hazard ratio = $0.33^*$ (0.67)
		p for forming DPP ties = 0.050
Fixed effects	Year, quarter-of-year, ind	ustry, governance-fixed
Observations	1,640	2,487
Firm counts	423	636
$Wald\chi^2$	147.93	111.67

**Note.** Robust standard errors are in parentheses;  $^{\dagger}p < .10$ ,  $^{*}p < .05$ ,  $^{**}p < .01$ ,  $^{**}p < .001$ . Model 1 used the KMT-connected sample; Model 2 used one-to-one without replacement propensity score matching. The dependent variables were connection portfolio changes. Complementary log-log estimators were used to analyze the hazard ratios of failures. Model 1 shows that KMT-connected firms did not cut KMT ties in the post-movement period, and Model 2 shows that KMT-connected firms became less likely to increase their DPP connections in the post-movement period.

TABLE A5-2. Subgroup Analyses

	Political C	ontestation	NGO Density		
	Low	High	< Mean	≥Mean	
	Model 1	Model 2	Model 3	Model 4	
Controls	Included	Included	Included	Included	
KMT connection	0.20	1.19***	$0.44^{\dagger}$	1.33**	
× Post movement	(0.31)	(0.25)	(0.25)	(0.34)	
Difference in effects	0.0	98*	0.9	90 <sup>†</sup>	
Fixed effects		Two-way, industry	y, governance-fixed		
Observations	983	1,504 1,449		1,038	
Adjusted R <sup>2</sup>	0.38	0.49	0.46 0.4		

**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels; p < .10, p < .05, p < .05,

TABLE A5-3. Measuring Donations Using Count and Dummy Variables

	Cor	Count Measurement			Dummy Measurement		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	
Controls	Included	Included	Included	Included	Included	Included	
KMT connection × Post movement	0.71 <sup>†</sup>	-1.88	0.41	0.05***	0.02	0.05***	
	(0.39)	(1.40)	(0.54)	(0.01)	(0.02)	(0.01)	
Post movement × Political contestation		-2.42			-0.03		
		(1.50)			(0.02)		
KMT connection × Post movement		3.04*			0.06*		
× Political contestation		(1.51)			(0.02)		
Post movement × NGO density			-0.45			-0.01	
			(0.39)			(0.01)	
KMT connection × Post movement			0.36			0.03*	
× NGO density			(0.42)			(0.01)	
Fixed effects	Two-way, industry, governance-fixed						
Observations	2,487	2,487	2,487	2,487	2,487	2,487	
Pseudo/Adjusted R <sup>2</sup>	0.68	0.69	0.68	0.46	0.46	0.46	

**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels; p < 0.10, p < 0.05, p < 0.05, p < 0.01, p < 0.01. All controls from the main analyses are included. The estimations of Models 1–3 differ from the main analyses in two ways: first, the dependent variable is the actual amount of philanthropic donations rather than log-transformed values; second, the model employs Poisson pseudo-maximum likelihood estimation rather than OLS. The estimations of Models 4–6 differ in their use of a dummy variable indicating whether firms made donations during a specific time period.

TABLE A5-4. Coarsened Exact Matching

	Model 1	Model 2	Model 3		
Controls	Included	Included	Included		
KMT connection × Post movement	1.08**	0.48***	1.05***		
	(0.34)	(0.05)	(0.09)		
Post movement × Political contestation		$-0.37^{\dagger}$			
		(0.21)			
KMT connection × Post movement		1.00*			
× Political contestation		(0.36)			
Post movement × NGO density			-0.05		
			(0.06)		
KMT connection × Post movement			0.65***		
× NGO density			(0.05)		
Fixed effects	Tw	Two-way, industry, governance-fixed			
Observations	4,025	4,025	4,025		
Adjusted R <sup>2</sup>	0.48	0.48	0.48		

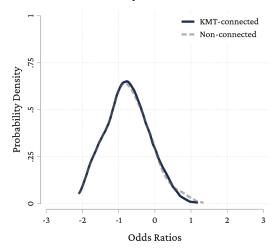
**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels; p < .10, p < .05, p < .01, p < .0

TABLE A5-5. Alternative Explanations and Placebo Tests

	Politica	Political Sensitivity		Anti-Mainland Sentiment		
	Pseudo-shock	Pseudo-treatment	Pseudo-treatment			
	LGBT Protest	Negative CAR	WSJ origin	Profit from Mainland		
	Model 1	Model 2	Model 3	Model 4		
Controls	Included	Included	Included	Included		
KMT connection	-0.26					
× Post LGBT	(0.44)					
Pseudo-treatment	· · · · · · · · · · · · · · · · · · ·	0.09	-0.64	-0.19		
× Post movement		(0.12)	(0.54)	(0.14)		
Fixed effects	Two-way, industry, governance-fixed					
Observations	1,000	870	367	1,847		
Adjusted R <sup>2</sup>	0.34	0.51	0.59	0.51		

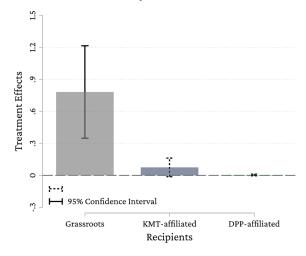
**Note.** Robust standard errors are in parentheses and are adjusted for clustering at both the city-year and firm levels; p < .10, p < .05, p < .01, p < .01,

FIGURE A5-1. Kernel Density Distribution after Matching



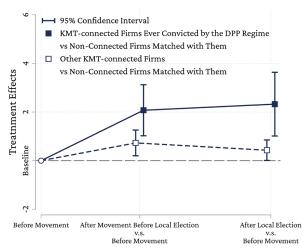
**Note.** These figures show the performance of propensity score matching by plotting the kernel density of the probability of being treated. The overlap between the treatment and control groups in the matched sample indicates the high quality of our matching.

FIGURE A5-2. Donation Recipients



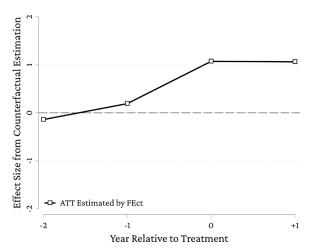
**Note.** This figure examines the recipients of donations. The key independent variable is the interaction of *KMT connection* and *Post movement*. The data on board members of recipients were collected from the Judicial Yuan.

FIGURE A5-3. Revealed Collusive Cases and Donation Increase



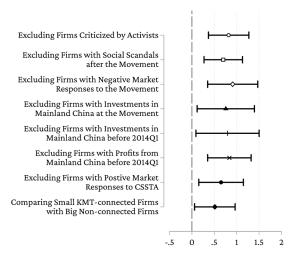
Note. This figure illustrates that KMT-connected firms that had been convicted for collusion donated more than other KMT-connected firms after the movement. This disparity is further enlarged by the local election, which strengthened the signal of regime turnover. As collusive KMT-connected firms faced higher transitional risk, the enlarged donation disparity supports risk hedging as the mechanism behind KMT-connected firms' philanthropic donations. The dependent variable is *Philanthropic donation*, while the primary independent variables are the interactions between dummies indicating specific types of firms and dummies indicating specific periods. We matched multiple treatment groups to the control group using marginal mean weighting through stratification.

FIGURE A5-4. Estimations Based on Time-variant vs. Time-invariant KMT Connection



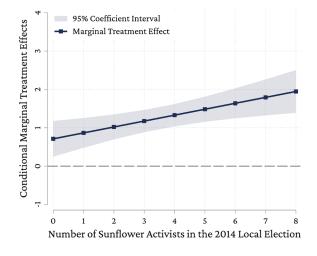
**NOTE.** This figure shows the effects estimated by the alternative estimator developed by Liu, Wang, and Xu (2024), which is adept at estimating the treatment effect for a group receiving time-variant treatment.

FIGURE A5-5. Direct Threat of the Movement



**Note.** This figure assesses if direct threats from the Sunflower Movement caused KMT firms' donation increases. Capped spikes indicate the 95% coefficient intervals. The treatment effects held across all panels, suggesting that the Sunflower Movement was the driving factor of KMT firms' *Philanthropic donation* increases.

FIGURE A5-6. 2014 Local Election Acted as a Harbinger of Transitional Risk



Note. This figure investigates the impact of the Sunflower Movement on the local political landscape during the 2014 local election, thereby influencing the response of KMT-connected firms to the election. The dependent variable i *Philanthropic donation*; the focal independent variable was the interaction of *Post-2014 election, KMT connection*, and the number of activist candidates in the election. The results indicated that the election served as a subsequent event to the Sunflower Movement in driving the increase in donations.

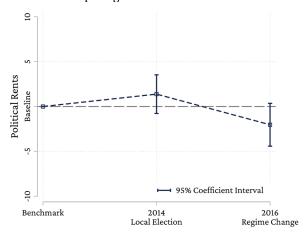
Political Rents

Baseline

-10

Benchmark

FIGURE A5-7. Comparing Risks Associated with 2014 Local Election and 2016 General Election



Benchmark: Between the Sunflower Movement and local election

# Local Election Regime Benchmark: Between the Sunflower Movement and local election

2014

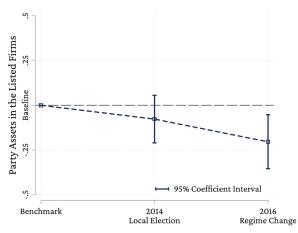
95% Coefficient Interval

2016

Regime Change

# b. KMT-connected Firms' Tax Rates

#### a. KMT-connected Firms' Government Procurements

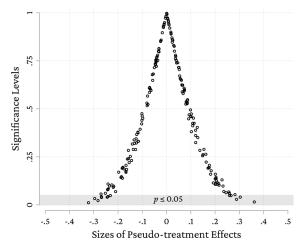


Benchmark: Between the Sunflower Movement and local election

c. KMT's Control of All Listed Firms

NOTE. Figures a and b show changes in government procurement contracts and tax rates for KMT-connected firms, while c displays changes in the KMT's party asset investments in all listed firms. Capped spikes indicate the 95% coefficient intervals. In Figures a and b, period-specific dummies multiplied by KMT connection serve as the independent variable. After the 2014 local election, government procurement contracts and tax rates remained unchanged, but the 2016 regime change adversely impacted political rents. In Figure c, the dependent variable is log-transformed investments from the KMT with data from IPASC and kmt.exposed. The KMT's investments in all firms decreased after the 2016 regime change.

FIGURE A5-8. Treatment Effects of Pseudo-treatment Groups



**Note.** This figure indicates that the Movement's impact on KMT-connected firms was not contaminated by unobserved factors. Each circle represents a random sample. We conducted 200 pseudo-treatment group assignments and replicated our primary analysis methods. Treatment effects in most random samples were insignificant and clustered around 0, notably lower than the effect observed in the KMT-connected firms' sample.

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