POLITICIANS FOR RENT

AN INVESTIGATION OF THE FINANCIAL VALUE OF RENT SEEKING ACTIVITIES IN HONG KONG

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Abstract:

The 2019 pro-democracy movement in Hong Kong brought about a period of political turmoil in the city-state, with considerable effects on the Hong Kong Stock Exchange. In this paper, we use stock market data to investigate the degree to which investors have reassessed their valuations of rent seeking activities following the protests. Building on previous research on rent seeking and political connectedness of firms, we categorize firms as either connected or not connected to the incumbent political leadership and compare the stock market valuations of the two groups. We find that politically connected firms have outperformed non-connected firms over the research period. This implies that there has been an increase in the stock market's valuation of rent seeking activities. We argue that this reflects the tendency of investors to turn to politically connected firms as a result of the inconclusive and uncertain outcome of the pro-democracy movement.

Keywords:

Rent seeking, Hong Kong, Protests, HKEX, Macrofinance

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1 Introduction

Despite the advancement and sophistication of our contemporary institutions, corruption and rent seeking remain as some of the most pervasive issues faced by societies around the world. Every year, substantial amounts of resources are devoted to rent seeking, i.e., the pursuit of people and particular groups to gain added wealth without the reciprocal creation of any new wealth. Incentives for rent seeking remain whenever decisions of other people influence personal outcomes, or more broadly, when resources can be used to affect distributional outcomes. Thus, rent seeking continues to represent a significant destruction of value across different economies (Aidt 2016).

One common approach for opposing this skewed distribution of wealth has been for citizens to take to the streets and protest *en masse*. In recent times, the Arab Spring and the uprisings against Yanukovych's government in Ukraine have shown how citizens can rise against corruption and favoritism. The attempts have been successful in some respects, with unpopular leaders unseated and rent seeking reduced. For instance, Acemoglu, Hassan & Tahoun (2018) used protestor data to show that politically connected firms in Egypt experienced proportionally larger losses of market value as Hosni Mubarak's reign was dismantled in 2011. In a similar paper, Dang, So & Yan (2018) showed that approximately 22.4% of firm value of these connected firms could be derived solely from the benefits of their connection to the dissolved Mubarak regime. In other words, the street protests served as a check on rent seeking and reduced the extent to which public resources were unfairly channeled to connected firms.

In this paper, we adopt a similar approach by using stock market data to study the degree to which the pro-democracy movement[1] that took place in Hong Kong in the second half of 2019 reflects the existence of corruption and rent seeking. With a ranking of 16/180 in Transparency International's 2019 ranking of the least corrupt countries, ahead of peers such as Japan (20/180) and the United States (23/180), Hong Kong is considered relatively progressive in combating corruption. Despite this, high-level instances of corruption have occurred in the past, exemplified by former Chief Executive Donald Tsang, who was found guilty of misconduct in public office and subsequently jailed in 2017 (Wu 2017).[2] Another similar example concerns former Chief Secretary of Administration Rafael Hui, the second-highest ranking public official in Hong Kong. He was jailed for seven years in 2013 after being convicted of a series of charges, including receiving corporate bribes of HK$11 million (Lau

[1] In this paper, we adopt the term *pro-democracy movement* to denote the civil unrest that has caused extensive protests following the introduction of the Fugitive Offenders Amendment Bill. We use this term given that we find it to be widely used, although we recognize that alternative terms exist.

[2] It had been revealed that he received private refurbishment services worth nearly HK$3.8 million from property tycoon Bill Wong Cho-bau. At the same time, his cabinet discussed, and eventually approved, a digital broadcasting license for listed company Wave Media, in which Mr. Wong was a major shareholder.

2014). These examples illustrate the presence of rent seeking in Hong Kong and highlight why this event-driven study can provide interesting insights into the financial value of political connectedness of firms in Hong Kong.

Our primary approach to investigate the impact of the protests is to study their influence on the stock market valuations of politically connected *vis-à-vis* non-connected firms. We establish a list of current and recent politicians belonging to the incumbent pro-establishment sphere of political influence and identify firms in which members of this list were board members at the onset of the protests. We then compare the cumulative stock returns of the connected firms and non-connected firms. As an additional robustness check, we look at the daily variations in the number of protestors to analyze how the intensity of protests affects daily returns for the two groups. In the absence of successful rent seeking activities, the stock returns of these two groups of firms should theoretically be equal. This follows from the implication that absent rent seeking, the political connections of a firm should have no influence on its valuation in the event of a change in political leadership.

Naturally, it would also be of interest to investigate the corresponding effect on firms connected to the opposite political alignment, i.e., the pro-democracy faction of Hong Kong politics. However, our data collection process only identified one such connected firm, compared to the nearly 100 pro-establishment connected firms in our dataset. This illustrates the close connection between the corporate sector and the pro-establishment alignment.

We find that, on average, politically connected firms exhibit higher cumulative abnormal stock returns than non-connected firms. These results are robust to a set of controls, including the effects of size, leverage and industry. Over the entire research period, the abnormal returns of politically connected firms exceed abnormal returns of non-connected by more than 5%.

On a daily basis, we find that protests were received negatively by investors, as more intense protests resulted in lower daily abnormal returns for the stock market overall. However, firms that were politically connected experienced significantly higher abnormal returns on days with very intense protests. As a result of this, the net effect on the abnormal returns of politically connected firms on these days is positive.

The fact that politically connected firms have benefitted from the street protests is not in line with previous literature, such as Acemoglu, Hassan & Tahoun (2018) and Dang, So & Yan (2018). However, this can be explained by the nature of the Hong Kong pro-democracy movement in comparison to its counterpart in Egypt and other similar contexts. Whereas the protest movement in Egypt had a clear outcome with the incumbent regime being ousted, the protests in Hong Kong have failed to create any *de jure* institutional change, and their long-term effects remain unclear. Given this, a possible interpretation of our results is that investors perceive the protests as a cause of political uncertainty for an indefinite time period. This, in turn, favors firms that have

board members who are part of the current political leadership, as they could potentially use their influence to help the firm navigate and benefit from the political uncertainty.

2 Background

This section serves as an overview of the political system in Hong Kong and the recent pro-democracy movement that has impacted many aspects of the city-state's societal structure. It is provided as an explanation of the basis for our methodology and data collection process. The information contained in this section is based mainly on available information found on the official websites of several Hong Kong public institutions, as well as numerous media outlets reporting on the protests. For a more comprehensive review of the political system in Hong Kong, we refer to, for example, Scott (2010).

2.1 Hong Kong's Political System

To establish an understanding of the context and methodology of this paper, we provide a brief overview of the current structure and dynamics of the political system in Hong Kong. The overarching foundation for how Hong Kong is governed lies within the Basic Law (Albert 2019), the city-state's constitutional document. This document designates a system of governance led by a Chief Executive and their appointed Executive Council, with a two-tiered system of representative government consisting of the Legislative Council and the District Councils, and finally an independent judiciary.

Overall, the political environment can be considered relatively dichotomous, mainly consisting of two opposing political alignments. These alignments include the pro-establishment (sometimes referred to as pro-Beijing, pro-China, or loyalist) camp, who are by and large pro-business supporters and generally support the policies of the central government in Beijing towards Hong Kong. On the other hand, the pro-democracy (sometimes referred to as pan-democracy) alignment supports incremental democratic reforms, particularly the universal suffrage of the Chief Executive and Legislative Council (Albert 2019). As we empirically show in Section 4.1, the pro-democracy alignment lacks the type of strong connection to the corporate sector which is one of the defining features of the pro-establishment alignment. Despite normally receiving less than 50% of the popular vote, the pro-establishment alignment has managed to maintain a legislative majority due to the indirectly elected nature of the Legislative Council.

Thus, although Chinese Communist Party (CCP) officials do not preside over Hong Kong the way they do in the mainland provinces and municipalities, they still exert considerable, albeit indirect, influence through the pro-establishment alignment. This alignment dominates the region's political sphere

while maintaining strong ties with the corporate sector. In our paper, it therefore forms the basis for our categorization of firms as politically connected.

2.1.1 Chief Executive

The Chief Executive is the official head of the Hong Kong Special Administrative Region (Government of HKSAR 2020*a*). They are elected by the Election Committee and appointed by the (Chinese) Central People's Government. In turn, the Election Committee consists of 1,200 members, with 300 members (individuals and firms) from each of the following four sectors: (1) industrial, commercial and financial sectors; (2) the professions; (3) labor, social services, religious, and other sectors; and (4) members of the Legislative Council and representatives of district-based organizations and several other political bodies.[3] Given the previously discussed tendency of the corporate sector to favor the pro-establishment alignment, the Election Committee tends to elect pro-establishment candidates (Fong 2015). This, coupled with the fact that the Chief Executive has to be appointed by the Chinese government, has historically led to a series of loyalist Chief Executives.

2.1.2 Executive Council

The Executive Council (ExCo) is responsible for assisting the Chief Executive in policy-making and advises the Chief Executive on matters relating to the introduction of bills and subsidiary legislation (Government of HKSAR 2020*c*). In other words, the ExCo serves as a core policy-making organ of the government of Hong Kong, currently consisting of 16 principal officials and 16 non-official members.

The members of the ExCo are appointed at the discretion of the Chief Executive. Some of the seats on the ExCo have traditionally been assigned to high-ranking pro-establishment members of the Legislative Council, which reflects the incentive of the Chief Executive to assemble a cabinet that will be able to get legislation through the legislative body. Provided that the Chief Executive appoints the ExCo and that its composition reflects the persisting pro-establishment majority of the Legislative Council, it plays a central role in the political establishment of Hong Kong. As such, all members of the ExCo are part of the list of people which we use to categorize firms as politically connected.

[3] In general, business interests have a dominant role in the Election Committee, particularly in the first and third sectors. Corporate votes elect the vast majority of the members of these sectors, i.e., a few hundred corporate executives representing a relatively limited electorate base. The second and fourth sectors, however, tend to represent a larger electorate base. For more detailed information on the composition of the Election Committee, we refer to Fong (2015).

2.1.3 Legislative Council

The Legislative Council (LegCo) is the law-making body of Hong Kong (Government of HKSAR 2020*d*). Its responsibilities encompass enacting, amending or repealing laws, approving budgets and appointing the judges of the judiciary. Hence, the function of the LegCo largely resembles the one of parliaments in conventional parliamentary democracies.

It comprises 70 members, of which 35 are elected directly by geographical constituencies while the other 35 are elected by functional constituencies. There are five geographical constituencies, which elect their representatives based on universal suffrage, using the largest remainder principle. The functional constituencies, on the other hand, consist of professional or special interest groups, which may include natural persons as well as other designated legal entities such as corporations. They are intended to represent economic sectors that are considered important to Hong Kong, such as the financial, legal, and tourism sectors. Their representatives are elected on the basis of limited suffrage, given that the eligible voters in these constituencies often only represent a very small share of the stakeholders and that their votes are mostly cast by means of corporate voting. In other words, the popular mandate of the industries is, in many cases, only extended to the very owners and senior management of the largest corporations. Many analysts maintain that the system thus gives certain groups disproportionate influence, as discussed by Martin (2019).

The functional constituencies have traditionally elected pro-establishment candidates, whereas the geographical constituencies have favored pro-democracy candidates. The pro-establishment alignment has with few exceptions retained a majority in the LegCo, and has therefore been able to exert substantial legislative influence. In our methodology, we include current and previous LegCo members of this alignment in the list of people used to categorize firms as politically connected.

2.1.4 District Councils

The District Councils are primarily concerned with local affairs across Hong Kong's 18 districts, but also play a significant role in the elections of the Chief Executive and the LegCo (Government of HKSAR 2020*b*). For more information on the District Councils, we refer to Appendix A.1.

2.2 Pro-Democracy Movement

Civil unrest has been a frequent occurrence in Hong Kong, particularly following the handover from Great Britain to China in 1997. The city-state has had an increasingly complicated relationship with the central government in Beijing ever since. A large part of the hostility can be explained by different interpretations of the fundamental *One Country, Two Systems* principle embedded in

the Basic Law (Albert 2019).

The trigger for the 2019 pro-democracy movement was the introduction of the Fugitive Offenders Amendment Bill, more commonly referred to as the *Extradition Bill*. Its origin and details are outlined in Appendix A.2.

Criticism of the extradition bill quickly intensified following its introduction, and efforts from the government to modify the bill failed to appease critics. After a series of minor demonstrations, the Civil Human Rights Front launched a protest march on the government headquarters on 9th of June. The reported number of protestors varies, but figures have been estimated to one million people at the peak of the march (Davidson 2019). This date is significant for this paper, as it represents the commencement of our research period. This is because it marked the beginning of a series of similar events, many of which culminated in violent protests and widespread destruction of property. Notable examples of such events include the subsequent 12th of June protests, the storming of the Legislative Council on 1st of July, the occupation of the Hong Kong Airport on 14th of August, the 70th anniversary of China on 1st of October, the protest-connected death of university student Chow Tsz-lok on 8th of November and the sieges of the Polytechnic and Chinese universities of Hong Kong.

The protests became less intense in the days preceding the District Council elections on 24th of November, in which the pro-democracy side experienced a landslide victory. The weeks that followed the elections were characterized by a lack of significant protests. In the last weeks of 2019, there was a gradual but relatively negligible resumption of protests before the COVID-19 crisis put a halt to physical gatherings. Therefore, our research period ends on 22nd of November, the last trading day prior to the District Council elections.

Although the initial objective of the protests was the withdrawal of the extradition bill, the pro-democracy movement quickly adopted the "five demands, not one less" slogan, with more far-reaching demands including universal suffrage and amnesty for all arrested protesters.[4] Despite only achieving the first demand, the 2019 protests have had a substantial impact on the economy of Hong Kong and the prospects for its governance, which presents an increasingly complicated environment for firms operating in the city-state (Rapoza 2020). The aim of this paper is thus to study the effects of this changing environment on firm valuations.

[4] The five demands are (1) full withdrawal of the extradition bill, (2) an independent commission of inquiry into alleged police brutality, (3) retracting the classification of protesters as "rioters," (4) amnesty for arrested protesters, and (5) dual universal suffrage, meaning for both the Legislative Council and the Chief Executive.

3 Literature Review

The interconnection between politics and business is a widely debated topic in the social sciences, yielding a rich literature of analyses from various contexts. The first part of this section presents the reader with a brief overview of the literature on rent seeking. This is followed by a review of relevant research on how financial markets can be used to investigate the prevalence and magnitude of rent seeking.

3.1 Brief Overview of Literature on Rent Seeking

An overview of the literature on rent seeking is provided in Congleton, Hillman & Konrad (2008), in which the authors give an account of the development of the literature since the nascence of rent seeking as an academic topic. The starting point is considered to be Tullock's (1967) paper on the "Welfare Costs of Tariffs, Monopolies, and Theft." Tullock's central observation was that if inefficient public policies, such as trade policies, were politically endogenous, part of the social cost of those policies would be the use of scarce personal abilities and resources in efforts to influence these policy decisions. This marked the establishment of a formalized theoretical framework for the concept of rent seeking, which would constitute the foundation for forthcoming research on the topic.

The literature that followed focused on quantifying the amount of resources that were devoted to rent seeking activities. More recent research has increasingly gravitated towards applications of rent seeking in practice. This has resulted in numerous papers investigating the role of rent seeking in contexts such as regulation, trade, economic development and growth, politics, migration and institutions. For a more comprehensive review of the literature on rent seeking, we refer to Congleton, Hillman & Konrad (2008).

3.2 Rent Seeking and Financial Markets

The past two decades have seen several influential papers that have used financial markets to examine the prevalence and magnitude of rent seeking. As evident from the discussed papers below, a common approach has been to conduct event-driven studies to assess the impact on financial markets. This has, in turn, been used to derive conclusions regarding the characteristics of potential rent seeking.

In a seminal study on the Indonesian stock market of the mid-1990s, Fisman (2001) used rumors about Indonesian President Suharto's health and found that approximately 23% of the value of firms with special connections to the regime could be accounted for by these political connections alone. Given Indonesia's highly centralized and stable political structure, based on Suharto's reign, the rumors of his deteriorating health provided conducive circumstances

for an event study into how firms connected to his regime were affected *vis-à-vis* non-connected firms. This methodology is highly analogous to our approach of using the pro-democracy movement in Hong Kong as the basis for an event study of connected firms.

The paper closest to our methodological approach is Acemoglu, Hassan & Tahoun (2018), which examines how the Arab Spring of 2011 affected firms in Egypt based on their connections to different incumbent political groups. The authors find that more intense protests are associated with lower stock market valuations for firms connected to the group currently in power relative to non-connected firms, suggesting that street protests serve as a partial check on political rent seeking. This finding is confirmed by Dang, So & Yan (2018), who found that 22.4% of firm value of politically connected firms could be derived from their political connection to the ruling autocrat Hosni Mubarak. These papers provide evidence that protests played an important role in curtailing rents captured by politically connected firms in Egypt. Interestingly, the effect of street protests on rents also holds in periods when there were no actual changes in formal institutions or government and when no such changes appeared to be forthcoming. This finding is of particular interest in the chosen context of this paper, as the 2019 protests in Hong Kong have failed to produce any *de jure* institutional changes.

Ferguson & Voth (2008) showed that the tendency of corporations to establish close relationships with politicians and to benefit from these is not only a recent development, but can be traced back as far as to Nazi Germany. The authors find that firms that had 'bet on Hitler' in his struggle for power saw their stock price rise by 5 to 8 percent faster than comparable firms during Hitler's rise to power between January and March 1933.

Similarly, a study on firms listed in China by Yan, Chan & Dang (2011) found that firms in which top management or the board had political connections seemed to face no financing constraints, whereas less connected firms had worse access to credit. A reduction in financing constraints naturally implies a significant benefit and hence enhances the value of the company in question.

Johnson & Mitton (2003) studied how politically connected listed firms were impacted by the late-90s Asian financial crisis in Malaysia and the subsequent imposition of capital controls. Their paper finds that in the initial stage of the crisis, firms with strong political connections suffered more, presumably because the expected value of subsidies declined with the impending crisis. Conversely, these firms enjoyed a disproportional rebound in the period that followed, as the introduction of capital controls allowed the government to channel more resources to firms with strong political connections to the Prime Minister. The interaction of shocks and institutions thus had a large impact on the distribution of outcomes at the firm level, which is relevant given that this paper revolves around the considerable shock that the protests have caused Hong Kong.

Politicians' board membership in corporations has also been used as a proxy

for political connectedness by Mian (2005). In this paper, the author finds that politically connected firms receive substantial preferential treatment from lenders, and more specifically, from government banks. Additionally, the results show that firms with more prominent politicians obtain even greater preferential access to credit. This paper is particularly interesting from a methodological standpoint, as it successfully establishes board membership as a legitimate basis for classifying firms as politically connected.

Our paper primarily builds on and extends past research on how rent seeking can be identified and quantified by using the performance of certain groups of listed firms in response to an exogenous shock. We extend this approach to the 2019 pro-democracy movement in Hong Kong. To our knowledge, such a study has never been undertaken. As such, this paper aims to provide knowledge on the value of connectedness and rent seeking in Hong Kong using financial markets.

4 Data Collection

4.1 Connected Firms

To establish a group of firms connected to the political establishment of Hong Kong, we have used official government information to obtain a list of people who belong to the ruling faction of Hong Kong politics, i.e., the pro-establishment politicians. To reflect the fact that past members of the legislative body can still maintain close ties to the political establishment, we have included in the list all current and previous pro-establishment members of the Legislative Council and the Executive Council, dating back to 2000.

Using Refinitiv's Eikon database for financial information, we have then screened this list of names against the current boards of directors of all firms listed on the Hong Kong Stock Exchange (HKEX). This yields a list of 90 connected firms, which are specified in Appendix B.1 and B.2.

We also recognize that shareholding is an appropriate and commonly used proxy for connectedness (for instance, we refer to Johnson & Mitton (2003)). However, there is a methodological obstacle arising from the issue that in instances where individuals are major shareholders, they often use holding companies which are difficult to tie to the person in question. This makes it challenging to establish connections with the same consistency as when using board membership as a proxy. We elaborate on this limitation in Section 7.1.

Naturally, it would also be of interest to study the corresponding effect on firms connected to the opposing political faction, i.e., the pro-democracy alignment. However, when performing the same screening procedure on pro-democracy politicians, we only find one such connected firm. This reflects the interconnected nature of the corporate sector and the pro-establishment alignment and highlights why this paper focuses on this political faction.

Table 1: Firm Characteristics by Connectedness

	(1)	(2)	(3)	(4)	(5)
	Share		Mean		
	N	Market Cap	Size	Leverage	β
All	2,070	1.00	12,641	0.20	0.59
s.d.			*85,137*	*0.29*	*0.38*
Connected	90	0.20	59,175	0.24	0.66
s.d.			*125,091*	*0.19*	*0.33*
Non-connected	1,980	0.80	10,526	0.20	0.59
s.d.			*82,287*	*0.29*	*0.38*

The table presents means and standard deviations of firm characteristics. *Share Market Cap* refers to the share of each firm group of the total stock market capitalization on the Hong Kong Stock Exchange as per the beginning of our research period, i.e., 9th of June. *Size* denotes the market capitalization in millions of Hong Kong Dollars (HK$). *Leverage* refers to total debt over total assets. β denotes the firm's market beta with respect to the Hang Seng Index, the main indicator of the overall stock market performance in Hong Kong, calculated using an estimation period spanning the calendar years of 2017 and 2018.

Table 1 shows descriptive statistics for the firms in our dataset. We refer to non-connected firms as those that do not fall into our definition of connected firms. The table presents the means and standard deviations of firm characteristics, where the values for size and leverage are as of the beginning of our research period. The beta values are based on our estimation period, as outlined in Section 4.3. On average, connected firms have a market capitalization of HK$59,175m, and are thus significantly larger than the average non-connected firm. They also have a slightly higher average leverage and market beta. The variation in size reflects the fact that the HKEX is comprised of many small firms alongside a number of large multinational conglomerates.

Table 2 further shows the distribution of the firms in our dataset in terms of industries. Our firms are classified according to the NAICS two-digit sector codes. As illustrated in the table, some sectors have a particularly strong presence on the HKEX, including manufacturing, construction and finance and insurance. This is indicative of the many Chinese manufacturing and construction companies that have their stock listed in Hong Kong. Consequently, these types of firms are also common in the list of connected firms.

Table 2: Firm Characteristics by Sector

	(1)	(2)	(3)
	Connected	Non-connected	All
Accommodation and Food	7	70	77
Administrative Support Services	-	38	38
Agriculture, Forestry and Fishing	-	12	12
Arts and Entertainment	-	21	21
Construction	17	231	248
Educational Services	-	21	21
Finance and Insurance	10	165	175
Healthcare and Social Assistance	-	19	19
Information	4	101	105
Management of Companies	-	2	2
Manufacturing	20	652	672
Mining and Oil and Gas Extraction	2	61	63
Other Services	-	18	18
Professional and Scientific Services	1	119	120
Public Administration	-	-	-
Real Estate and Leasing	8	101	109
Retail Trade	8	103	111
Transportation and Warehousing	5	48	53
Utilities	4	43	47
Wholesale Trade	4	155	159
Total	**90**	**1,980**	**2,070**

The table presents the distribution of the firms in our dataset between different sectors. The sector definitions are taken from the North American Industry Classification System (NAICS), which classifies firms according to their economic activities. The NAICS codes for each company were identified through the Eikon database.

4.2 Protestors

We construct a series using text analysis of a number of English-language newspapers, which is presented in Table 3. For each day of the research period, online news outlets were scanned for the number of protestors. One challenge was

Table 3: Sources for Protestor Data

Source	N
Hong Kong Free Press	25
South China Morning Post	23
Radio Television Hong Kong	12
NY Times	6
The Guardian	6
BBC	2
Washington Post	2
Wall Street Journal	1
CNN	1
Time	1
Total	**79**

This table presents all our sources for daily protests. *Source* indicates from which news outlet we have obtained the figure and N denotes the number of times we have used each source. For a full list of obsevations, we refer to Appendix B.3.

judging the different sources' biases and potential political affiliations, as conflicting figures could potentially corrupt our data. However, the actual number of protestors is not particularly interesting for our analysis, as we are primarily examining the effect of variation in protest intensity.

Most news outlets tend to report protestor numbers on a discrete basis, using categories such as "hundreds," "thousands" or "hundreds of thousands." This reflects the imprecise nature of estimating the number of protestors. In our model, this is reflected by a set of dummy variables. Fortunately, our sources are highly uniform in their reports of the number of protestors based on this categorization. Only in a few isolated cases was the reported number of protestors in conflicting categories. In these instances, we favor the outlets for which we have more data, as this leads to a more consistent dataset. Generally, we collect protestor data from a set of established and reputable newspapers to minimize the effects of any potential bias. We further discuss this issue in Section 7.1.

As shown in Table 4, protests were a common occurrence through our research period, as 79 of the 167 days recorded protests. Nearly half of these days of protests had protestors in the "thousands" category.

Table 4: Protestor Data

Protest Magnitude	N
Missing	88
Hundreds	21
Thousands	31
Tens of thousands	17
Hundreds of thousands	7
Millions	3
Share of days with protests	*47.3%*
Total	**167**

The categorization of the number of protestors for each respective day is based on our text analysis of news outlets, as outlined in Section 4.2. Days where there were no reports of protests, or when protest numbers were negligible (e.g. tens, dozens), have been classified as missing.

4.3 Financial Data

All stock market data is collected from the Eikon database. This includes daily closing prices for all 2,354 listed firms on HKEX for our research period, which is 9th of June to 22nd of November 2019. Furthermore, we also collect data for our control variables. The first variable is leverage, which is defined as the ratio of total debt to total assets at the beginning of the period for each respective firm. Given that leverage policies tend to be stable over shorter periods, the value at the beginning of the period serves as an appropriate measure of leverage for the research period. Secondly, we collect the market capitalization of all firms at the beginning of the period, as well as the NAICS sector code for each firm in order to control for sector fixed effects. Additionally, we collect data for total asset value of each individual firm as an alternative control for size. In order to calculate expected returns through CAPM, we use stock data corresponding to an estimation period spanning the calendar years 2017 and 2018. We also obtain daily yields for Hong Kong three-month government bonds over the same period to estimate the risk-free rate as the average yield. For our data, this figure is 0.46%.

We drop stocks for which there are missing values for any of our variables. Finally, we also screen for extreme outliers in our dataset. Consequently, we remove two stocks from our regression, which results in 2,070 stocks in total.[5]

[5] The two dropped firms are SingAsia Holdings Limited and Evershine Group Holdings Limited, which lost approximately 99% and 97% of their market value respectively over the

5 Method

Our primary analytical approach is the standard event study approach developed by Ball & Brown (1968), which is analogous to the analysis conducted by Acemoglu, Hassan & Tahoun (2018). We begin this section by discussing the timeline of our data. Following this, we elaborate on our empirical model and its econometric implications. Finally, we develop our main hypothesis.

5.1 Timeline

The protests are still ongoing as of early 2020, which poses a challenge to our approach. We have defined the start of the period to be 9th of June since that was, in many respects, a springboard from which the entire pro-democracy movement evolved. There are several accounts of this being the largest ever protest since Hong Kong was returned to China from Britain in 1997 (Fowler 2019; Griffiths, Cheung & Lee 2019). More importantly, it was from this point in time that the protests became a prevalent occurrence in everyday Hong Kong life and spurred into a substantial movement, as discussed in Section 2.2. We recognize that there were a few minor occurrences of protests regarding the extradition bill before 9th of June. However, these types of minor protests have occurred sporadically since the Umbrella Movement of 2014. Thus, these incidents should already be incorporated into stock market valuations at the beginning of our research period.

We set the end date of the research period to 22nd of November, the final trading day anterior to the District Council elections, which are widely regarded as an informal referendum on the protests (Leung, Talmazan & Flanagan 2019). After this, the protests substantially declined in magnitude, which would potentially allow for stock market valuations to evolve in a manner less connected to the protests. Furthermore, this end date allows us to delimit the time frame from the COVID-19 crisis, as this would significantly limit the scope of interpretation of our results.

5.2 Model

5.2.1 Cumulative Abnormal Returns

Our dataset consists of 2,070 companies and their stock performance together with a set of control variables. As a measurement of a firm's performance, we estimate its cumulative abnormal return for the research period. We run the regression

$$R_{it} - r_f = \beta_i(R_t^{Mkt} - r_f),$$

research period. We refer to Appendix B.4 for a visualization of our dataset adjusted for outliers.

where R_{it} is the natural log of the ratio of closing prices at day t and $t-1$ for firm i. R_t^{Mkt} is the corresponding measure for the Hang Seng Index. The risk free rate, r_f, is defined as the average yield on a three-month government bond for our estimation period. Through this regression, we obtain individual β_i for all companies. With that information, we define the cumulative abnormal return of firm i between day n and m as

$$CAR[n,m]_i = \sum_{t=n}^{m} R_{it} - r_f - \beta_i(R_i^{Mkt} - r_f).$$

In other words, the abnormal return is the difference between the realized return and the return predicted by CAPM. We then introduce a dummy variable N_i denoting whether or not firm i is politically connected via a pro-establishment politician. This dummy takes the value of 1 if a firm is connected and 0 otherwise. Our first empirical specification then becomes

$$CAR[n,m]_i = N_i\gamma + X_i^{'}\nu + \eta_s + \epsilon_i, \tag{1}$$

where X_i is a control vector with market data for leverage, measured as total debt to total assets, and size, measured as market capitalization. We use market capitalization as our primary control for size, given that more firms have available data for this variable compared to asset value. η_s is a vector which encompasses 19 sector fixed effects. The γ coefficient will be the relevant term to analyze in our results, as it captures the difference in cumulative abnormal return between connected and non-connected firms over the research period. This analysis requires the standard identification assumption to hold where $CoV(N_i, \epsilon_i | X_i, \eta_s) = 0$. This is ensured by the inclusion of our control variables, which should mitigate any systematic effect on stock performance not captured by the political connectedness of the individual firm. The inclusion of sectoral dummies and controls for leverage and size is motivated by the potentially different impacts of political turmoil on firms active in different sectors or with varying leverage policies and size. Furthermore, only robust standard errors are reported to adjust for potential heteroscedasticity.

5.2.2 Daily Abnormal Returns

In addition to investigating the cumulative abnormal returns over the entire period, we also analyze daily returns for each individual trading day. This analysis is based on the variation in the number of protestors on a categorical scale of "moderate," "intense" and "very intense", as outlined in Appendix B.5. Given that our protest data collection process has demonstrated that nearly all protests took place during evenings, we lag the number of protestors to the following trading day. For weekends and national holidays, we have attributed the greatest category of protests that have taken place over the non-trading days to the next trading day. This follows from the difficulty of aggregating

protests using our scale, but also because the aggregation of protests will likely fall into the same category as the highest protest day. Therefore, by taking the maximum of the previous non-trading days, we get a good proxy for the intensity of protests leading up to the next trading day. Thus, we get a second specification in the form of

$$AR_{it} = N_i\gamma + P_t\phi + (P_t \times N_i)\gamma^p + X_i^{'}\nu + \delta_t + \eta_s + \epsilon_{it}, \tag{2}$$

where AR_{it} is defined as the abnormal return in relation to CAPM for firm i on trading day t. P_t is a factor variable reflecting the number of protestors attributable to trading day t. The effect of protests on stock performance is thus captured in vector ϕ. P_t is also interacted with the connectedness variable N_i to capture the differential effects between connected and non-connected firms. This effect is reflected in the vector γ^p. $X_i^{'}$ and η_s are still defined as control vectors as outlined in the first specification. δ_t is a vector of time dummies for each week. The rationale behind weekly time dummies is the fact that the protest movement to a large extent followed a weekly cycle with intense protests during the weekends and less intense protests on weekdays. Thus, the inclusion of these dummies allows us to differentiate between the effect of the protests and other events occurring these weeks which could affect abnormal returns.

In this specification, ϕ and γ^p are the coefficients of primary interest. γ^p allows us to specifically evaluate the differential effects of the intensity of protests on connected *vis-à-vis* non-connected firms. This specification also assumes that there are no omitted variables varying over time and affecting both the number of protestors and the stock returns such that $CoV(P_t \times N_i, \epsilon_i | X_i, \delta_t, \eta_s) \neq 0$.

Furthermore, we need to assume that there is no reverse causality, i.e., that the stock returns do not affect the intensity of protests. This assumption is justified for multiple reasons. Firstly, the demonstrations have not had any origin in the stock market returns. Rather, the protest movement is political by nature. This is confirmed by the fact that any potential effects of stock prices on street protests are undocumented as far as we are aware, suggesting that the stock market returns did not, in themselves, motivate people to protest. Also, since the effects of protests on returns are lagged, the risk of reverse causality is virtually eliminated. However, the long-run trends in protest intensity present the potential issue of identifying the effects they have on daily returns. As most protests took place during weekends, the week leading up to the protest likely provided clues to the future intensity of protests, which should then have been incorporated into stock prices continuously.

5.3 Hypothesis Development

As shown by Acemoglu, Hassan & Tahoun (2018) and Fisman (2001), exogenous shocks to the political leadership can lead to a reallocation of resources through revaluation of the extractable rents from political connectedness. We

hypothesize that the pro-democracy movement in Hong Kong should be sufficiently significant for such a reallocation. If investors believe that the value of pro-establishment connections will increase as a result, the value of these firms should increase relative to non-connected firms and vice versa. Given that previous literature has suggested both positive and negative relative performance of connected firms following changes in the political landscape, we adopt a two-sided hypothesis. Thus, with our model, we test $H_0 : \gamma = 0$ against a two-sided alternative for our first specification. For our second empirical model, we test $H_0 : \gamma^p = 0$ against a two-sided alternative. In summary, we investigate the following hypothesis:

The stock performance of politically connected firms differs from that of non-connected firms in the period of the 2019 Hong Kong protests.

6 Results and Analysis

In this section, we present our results and analysis for the two empirical models. Section 6.1 corresponds to Equation 1 for cumulative abnormal returns. Section 6.2 presents the results and analysis for Equation 2 using daily returns. Finally, we conclude this section by an analysis of the total implications of our results.

6.1 Cumulative Abnormal Returns

6.1.1 Empirical Results

Table 5 presents our results for Equation 1. Column 1 shows our most parsimonious specification, which excludes our control variables. It shows a highly significant coefficient at a 1% level. This suggests that there is a significant difference in stock market performance between politically connected and non-connected firms. More specifically, the effect is positive, implying that connected firms exhibited 7.3% higher abnormal returns on average during the period between 9th of June and 22nd of November 2019. In column 2, we add our controls for size and leverage. Column 3 further adds the sector-fixed effects, and thus represents our baseline specification.

We find that the effect of political connectedness is robust to these controls and that the coefficients are still significant at a 5% level in columns 2 and 3. Although the values of the coefficients decrease somewhat in absolute terms, the coefficients are still highly significant. As illustrated in Appendix B.6, the p-value of our full specification is less than 3%. Furthermore, the low correlation between the regressors, which are presented in Appendix B.7, mitigates the risk of multicollinearity. With all of our controls, the political connectedness of the firm explains 5.32% of the difference in performance between the connected and non-connected firms on average. These results are also robust to controlling for asset size instead of market capitalization, as can be seen in Appendix B.8.

Table 5: Ordinary Least Squares Regression

	Cumulative Abnormal Return		
	(1)	(2)	(3)
Connected Firm	0.0709***	0.0612**	0.0585**
	(0.0254)	(0.0260)	(0.0264)
Leverage		-0.0447	-0.0381
		(0.0291)	(0.0306)
Market Cap		2.32e-07**	2.41e-07**
		(1.14e-07)	(1.19e-07)
Observations	2,070	2,070	2,070
Adjusted R-squared	0.001	0.004	0.007
Sector Fixed Effects	No	No	Yes

This table presents the empirical results of our first specification for cumulative abnormal returns. *Connected Firm* follows our definition outlined in Section 4.1. *Leverage* is total debt to total assets and *Market Cap* is the firm's market capitalization in millions of Hong Kong Dollars. Sector fixed effects treats the industry classification of firms as a factor variable. Robust standard errors are specified in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

One apparent feature of our results is the relatively low R-squared values. However, given our model specification, this is expected. Variables such as size, leverage and sector will only explain a small share of the variance in abnormal stock performance. These are used solely as robustness checks on the effect of political connectedness in our model. Thus, the only variable explaining the variation in stock performance is the political connectedness.

6.1.2 Analysis

The fact that politically connected firms have performed better during our research period implies that investors have positively revised their valuation of such connections. In general, the main obstacle to untangling this correlation is the fact that the pro-democracy movement has not had a clear outcome. Although we cannot conclude the exact reasons for why investors positively reassessed their valuation of political connectedness, we present below a number of potential explanations as to why this would happen.

One possible scenario is that Hong Kong, as a result of the pro-democracy movement, will become more independent. Its close ties with China currently play an important role in Hong Kong politics and business. Hence, a loosening of these ties would have far-reaching implications. According to figures from the Hong Kong Trade and Industry Department, more than 50% of Hong Kong's trade in 2018 was with mainland China. The second biggest trade partner was the USA, which represented 6.6% of total volume. Thus, it goes without saying that any change in trade policy made by Beijing following changed diplomatic relations would have severe consequences for Hong Kong-based companies. In such a scenario, political connections to the pro-establishment alignment, and by extension mainland China, could be of great value to ensure that supply chains, distribution channels and financing remain intact under the new circumstances. This could be achieved through rent seeking through politically connected board members.

However, there is also a possibility that the opposite scenario materializes, i.e., that the pro-democracy movement induces repressive measures from the central government in Beijing, ultimately causing a loss of independence. A chain of events along these lines could increase the value of political connectedness. This type of development would likely imply greater integration of China and Hong Kong, meaning that Hong Kong firms would operate under an economic environment similar to the one of the Chinese internal market. As discussed in Section 3.2, previous literature has shown that by having politically connected managers, firms operating in China receive preferential treatment. It is possible that investors attribute some likelihood to this scenario as a result of the pro-democracy movement.

The final and most likely interpretation is that the outcome of the protests is highly unclear and that firms, therefore, will have to operate under political uncertainty for an indefinite time period. In such circumstances, it is certainly beneficial to have board members who are familiar with the political environment. It is of particular benefit if these members are part of the current political leadership, as they could use their influence to extract rents and thus help the firm navigate and benefit from the political uncertainty.

6.2 Daily Abnormal Returns

6.2.1 Empirical Results

Table 6 presents our results for Equation 2 using a random effects panel data regression. This specification includes all control variables previously outlined. Before we run the regression, we test for autocorrelation and find that there is no evidence for that, as shown in Appendix B.9. We find two statistically significant coefficients in ϕ, indicating that the overall stock returns were negatively affected by the presence of intense and very intense protests. Stocks experienced, on average, 0.17% and 0.40% lower abnormal returns on days

Table 6: Random Effects Regression

	Daily Abnormal Return
Connected Firm	-8.15e-05
	(0.000348)
Moderate Protests	-0.000219
	(0.000272)
Intense Protests	-0.00170***
	(0.000316)
Very Intense Protests	-0.00398***
	(0.000980)
Connected Firm × Moderate	-6.52e-05
	(0.000578)
Connected Firm × Intense	0.000471
	(0.000799)
Connected Firm × Very Intense	0.00581**
	(0.00284)
Leverage	2.38e-06
	(3.22e-06)
Market Cap	3.40e-09***
	(1.32e-09)
Observations	242,190
Number of Companies	2,070
Sector Fixed Effects	Yes
Time Dummies	Yes

This table presents the empirical results of our second specification for daily abnormal returns. *Connected Firm* follows our definition outlined in Section 4.1. *Leverage* is total debt to total assets and *Market Cap* is the firm's market capitalization in millions of Hong Kong Dollars. Furthermore, we have included the dummy variables relating to the intensity of protests. Finally, we have also included the interaction term between political connectedness and the intensity of protests. Sector fixed effects treats the industry classification of firms as a factor variable and time dummies are weekly dummies as described in our method. Robust standard errors are specified in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

with intense and very intense protests, respectively. We only find one statistically significant coefficient in γ^p. This is the interaction term between political connectedness and very intense protests, which is significantly positive at a 5% level. This indicates that, on average, politically connected firms performed 0.58% better than non-connected firms on trading days following protests attended by millions of people. Thus, the net effect on connected firms on days with very intense protests is 0.18%.

6.2.2 Analysis

These results show that the protests had a statistically significant impact on stock market performance. The more intense the protests, the lower the abnormal returns. This implies that, in general, the protests and the uncertainty surrounding them have adversely affected stock performance. Furthermore, the significant coefficient for the interaction term is in line with our previous results, suggesting that connected firms have performed better in response to the protests. Interestingly, the only significant coefficient refers to the category associated with the most intense protests. It is reasonable to assume that the instances with the largest protests were more likely to surprise the market. Thus, the fact that this specific coefficient is significant serves as a robustness check to our findings for cumulative abnormal returns. In other words, connected firms performed significantly better on the trading days on which the impact of protests was the most concentrated. On these days, the connected firms experienced a net positive abnormal return on average.

One important aspect to consider is the potential market expectations of protests, as outlined in Section 5.2.2. There is some reason to believe that there were clues to the intensity of the protests before they took place. For instance, many of the protests at the beginning of the research period took place on weekends, with expectations of upcoming protests surfacing in the weekdays before. Generally, this information would be incorporated in stock prices before the protests transpired and would thus obfuscate some of our results. This should be mitigated by our weekly time dummies, which adjust for positive or negative sentiment on the market each week on a general level.

Furthermore, daily protests became a considerably frequent occurrence in the later stages of the research period. It is plausible that this led to a sentiment of protests being a constantly present element in the calculations of firms' valuations and, as such, reduced the impact of protests on daily returns. Altogether, these arguments are strengthened by comparing the results from our two specifications. Politically connected firms exhibit higher abnormal returns than non-connected firms over the entire research period, although this is only reflected on individual trading days with protests sufficiently intense to surprise the market.

6.3 Conclusion

The pro-democracy movement has undoubtedly had a considerable impact on Hong Kong, including its financial markets. In this paper, we provide evidence that the protests have had a statistically significant and positive effect on the stock market valuations of firms with a connection to the incumbent pro-establishment political alignment. These results are robust to a number of control variables. However, this difference is less clear in the daily returns of connected and non-connected firms, apart from on trading days that followed days of very intense protests. This suggests that there was a tendency for information to be incorporated over a set of adjacent trading days.

The totality of this evidence motivates our interpretation, which is that over the research period, the value of political connectedness and, by extension, the value of rent seeking activities, has increased.

7 Limitations and Suggestions for Future Research

7.1 Limitations

There are a few possible limitations to our study, which are outlined below. Most of these have been addressed throughout this paper and are explained in detail in this section. Although we have taken measures to reduce the effects of these limitations, we believe that forthcoming papers could benefit from an even more rigorous approach to these.

Firstly, the results build on our classification of firms as connected or not connected. We believe that our classification of firms as politically connected is rather conservative. Numerous other proxies could be used to extend the group of connected firms. Shareholding is an example of such a proxy which could be used to extend this group of firms, although the methodological approach proved to be outside the scope of this paper as discussed in Section 4.1. This conservative approach should, however, create a bias towards zero for the γ-coefficients, as there is a limited correlation between N_i and the control variables. Thus, we can expect the actual effect of political connectedness to be even stronger in reality than predicted by our models as long as we can assume that the firms we do identify are randomly drawn from the total set of connected firms.

Secondly, our estimation of daily protestor data is subject to consideration. Some of the problems are outlined in Section 4.2, such as biased estimates and conflicting figures. However, the broad categorization made through our modelling mitigates the issue of bias. Although reports on protests might vary slightly between different sources, there needs to be a very extensive bias present to misclassify the data point. As all measurements are on the order of ten, the

impact of minor biases is thus reduced.

Despite reducing the impact of bias, this scale of measurement also has limitations. For instance, a continuous numerical scale would allow for a more dynamic analysis of the variations in protests over time. However, this would likely be difficult to achieve, given the nature of the reporting of these events.

7.2 Suggestions for Future Research

In this paper, we have investigated the specific case of the 2019 Hong Kong pro-democracy movement and its effects on the financial markets. However, this movement is only one of many in recent times, and it would be of interest to also study the corresponding effects resulting from other recent civic movements (e.g., Chile or Iraq). Such a comparative study could provide a better understanding of our results and generate additional insights into the nature and effects of different civic movements.

Furthermore, little time has elapsed since the event of our study and the writing of this paper, and the protests are, to a large extent, still ongoing without any conclusive outcome. Given this, future research on the Hong Kong case would benefit from allowing more time to pass to provide for a clearer analysis of the events. Additionally, it is also feasible that future periods of protests could differ significantly from the ones we have studied in terms of political and institutional impact. In such a case, it would be of interest to study the effects of the different periods of protests.

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Appendix A Additional Background Information

A.1 District Councils

As of the 2019 District Council elections, there are 18 councils, comprising a total of 479 council members. Of these, 452 are elected by universal suffrage in the different districts. The remaining 27 are ex officio members.[6] The councils undertake improvement projects and promote recreational, cultural and community activities in their respective district. They also advise the government on issues pertaining to the well-being of its residents and serve as a channel for citizens to pass their opinions up the official chain.

Moreover, the district councils play a significant role in the elections of the Chief Executive and the LegCo. This follows from the fact that they constitute roughly 10% of the Election Committee and retain five of the seats in the LegCo through their functional constituency. Thus, the district councils exert considerable influence over the legislative and executive bodies of the political system. However, their main purpose is to take part in matters that directly affect the well-being of people in their district.

A.2 The Fugitive Offenders Amendment Bill

The purpose of the bill was to allow Hong Kong to detain and transfer people wanted in countries with which Hong Kong has no formal extradition agreements. Most noteworthy, these countries include China and Taiwan. It was introduced following the remarkable murder case of Poon Hiu-wing, and quickly received criticism from opponents claiming that it would allow China to arbitrarily detain political dissidents (Li 2019).

Chang Tong-kai's murder of girlfriend Poon Hiu-wing gained worldwide attention after it became clear that it put Hong Kong in an unprecedented legal situation. Shortly after killing Poon in a hotel in Taiwan while on vacation, Chan flew back to Hong Kong. Despite confessing to the crime, Chan could not be charged with murder in Hong Kong, given that it had occurred on Taiwanese territory. However, the lack of an extradition agreement also prevented him from standing trial in Taiwan.

[6] The 27 ex officio members of the District Councils represent the chairmen of the 27 rural committees in the *Heung Yee Kuk*. The *Heung Yee Kuk* is a statutory advisory body safeguarding the welfare of the indigenous residents in the New Territories of Hong Kong. The Legislative Council also has a seat dedicated to this body, given that it constitutes one of the functional constituencies.

Appendix B Summary Statistics and Supplementary Tables

B.1 Connected Firms

Table 7: Connected Firms

Ticker	Company Name
0001.HK	CK Hutchison Holdings Limited
0002.HK	CLP Holdings Limited
0003.HK	Hong Kong and China Gas Co Limited
0004.HK	Wharf Holdings Limited
0010.HK	Hang Lung Group Limited
0011.HK	Hang Seng Bank Limited
0016.HK	Sun Hung Kai Properties Limited
0020.HK	Wheelock and Co Limited
0023.HK	Bank of East Asia Limited
0040.HK	Gold Peak Industries Holdings Limited
0041.HK	Great Eagle Holdings Limited
0051.HK	Harbour Centre Development Limited
0057.HK	Chen Hsong Holdings Limited
0062.HK	Transport International Holdings Limited
0066.HK	MTR Corp Limited
0069.HK	Shangri-La Asia Limited
0081.HK	China Overseas Grand Oceans Group Limited
0083.HK	Sino Land Co Limited
0095.HK	LVGEM (China) Real Estate Investment Co Limited
0099.HK	Wong's International Holdings Limited
0101.HK	Hang Lung Properties Limited
0123.HK	Yuexiu Property Limited
0131.HK	Cheuk Nang Holdings Limited
0135.HK	Kunlun Energy Company Limited
0179.HK	Johnson Electric Holdings Limited
0180.HK	Kader Holdings Co Limited
0181.HK	Fujian Holdings Limited
0199.HK	ITC Properties Group Limited
0207.HK	Joy City Property Limited
0230.HK	Minmetals Land Limited
0236.HK	San Miguel Brewery Hong Kong Limited
0247.HK	Tsim Sha Tsui Properties Limited
0259.HK	Yeebo (International Holdings) Limited
0270.HK	Guangdong Investment Limited

0291.HK	China Resources Beer Holdings Limited
0293.HK	Cathay Pacific Airways Limited
0298.HK	Chuang's China Investmentments Limited
0303.HK	Vtech Holdings Limited
0315.HK	Smartone Telecommunications Holdings Limited
0345.HK	Vitasoy International Holdings Limited
0367.HK	Chuang's Consortium International Limited
0369.HK	Wing Tai Properties
0388.HK	Hong Kong Exchanges and Clearing Limited
0393.HK	Glorious Sun Enterprises Limited
0406.HK	Yau Lee Holdings Limited
0440.HK	Dah Sing Financial Holdings Limited
0480.HK	.HKR International Limited
0558.HK	LK Technology Holdings Limited
0595.HK	AV Concept Holdings Limited
0608.HK	High Fashion International Limited
0617.HK	Paliburg Holdings Limited
0620.HK	DTXS Silk Road Investment Holdings Co Limited
0622.HK	Oshidori International Holdings Limited
0659.HK	NWS Holdings Limited
0662.HK	Asia Financial Holdings Limited
0698.HK	Tongda Group Holdings Limited
0762.HK	China Unicom Hong Kong Limited
0817.HK	China Jinmao Holdings Group Limited
0822.HK	Ka Shui International Holdings Limited
0831.HK	Convenience Retail Asia Limited
0872.HK	TUS International Limited
0908.HK	Zhuhai Holdings Investment Group Limited
0981.HK	Semiconductor Manufacturing International Corp
0988.HK	Silk Road Logistics Holdings Limited
1052.HK	Yuexiu Transport Infrastructure Limited
1097.HK	I-Cable Communications Limited
1128.HK	Wynn Macau Limited
1212.HK	Lifestyle International Holdings Limited
1221.HK	Sino Hotels Holdings Limited
1270.HK	Langham Hospitality Investment Limited
1299.HK	AIA Group Limited
1313.HK	China Resources Cement Holdings Limited
1367.HK	Sfund International Holdings
1660.HK	Zhaobangji Properties Holding Limited
1668.HK	China South City Holdings Limited
1788.HK	Guotai Junan International Holdings Limited
1929.HK	Chow Tai Fook Jewellery Group Limited

1962.HK	Evergreen Products Group Limited
1982.HK	Nameson Holdings Limited
1997.HK	Wharf Real Estate Investment Company
2007.HK	Country Garden Holdings Co Limited
2083.HK	Nature Home Holding Company Limited
2383.HK	Tom Group Limited
2638.HK	.HK Electric Investments Limited
2689.HK	Nine Dragons Paper (Holdings) Limited
3800.HK	GCL-Poly Energy Holdings Limited
3836.HK	China Harmony New Energy Auto Holding Limited
3903.HK	Hanhua Financial Holding Co Limited
8109.HK	Kirin Group Holdings Limited
8372.HK	Grand Brilliance Group Holdings Limited

This list includes all firms which are classified as politically connected as per our categorization method, which is outlined in Section 4.1. *Ticker* refers to the official HKEX ticker of the firm, whereas *Company Name* refers to its full name.

B.2 List of Politicians in Connected Firms

Table 8: List of Politicians in Connected Firms

Ticker	Connected Person	Role in Company	Tenure in Company	Political Position	Tenure in Political Position
0001.HK	(Charles) Lee Yeh-kwong	Non-Executive Director	2015-	Member of Executive Council	2005-2012
0002.HK	(Fanny) Law Fan Chiu-fun	Independent Non-Executive Director	2012-	Member of Executive Council	2012-
0003.HK	(David) Li Kwok-po	Independent Non-Executive Director	1984-	Member of Executive Council	2005-2012
0004.HK	(Vincent) Fang Kang	Independent Non-Executive Director	1993-	Member of Legislative Council	2004-2016
0010.HK	(Martin) Liao Cheung-kong	Independent Non-Executive Director	2014-	Member of Executive Council	2017-
0011.HK	(Eric) Li Ka-Cheung	Independent Non-Executive Director	2000-	Member of Legislative Council	2000-2004
0016.HK	(Eric) Li Ka-Cheung	Independent Non-Executive Director	2009-	Member of Legislative Council	2000-2004
0016.HK	(Henry) Fan Hung Ling	Independent Non-Executive Director	2018-	Member of Executive Council	2005-2012
0020.HK	(Kenneth) Ting Woo-shou	Independent Non-Executive Director	2003-	Member of Legislative Council	2000-2004
0023.HK	(Arthur) Li Kwok-cheung	Non-Executive Deputy Chairman of the Board	2009-	Member of Executive Council	2002-2007; 2012-
0023.HK	(David) Li Kwok-po	Executive Chairman	1997-	Member of Executive Council	2005-2012
0040.HK	Lui Ming-wah	Independent Non-Executive Director	1995-	Member of Legislative Council	2000-2008
0041.HK	(Ambrose) Lee Siu-kwong	Independent Non-Executive Director	2016-	Member of Executive Council	2002-2012
0051.HK	(Frankie) Yick Chi-Ming	Non-Executive Director	2012-	Member of Legislative Council	2012-
0057.HK	(Bernard) Charnwut Chan	Independent Non-Executive Director	2004-	Member of Executive Council; Member of Legislative Council	ExCo: 2002-2012; 2017- LegCo: 1998-2008
0062.HK	(Eric) Li Ka-Cheung	Independent Non-Executive Director	1998-	Member of Legislative Council	2000-2004
0066.HK	(Frank) Chan Fan	Non-Executive Director	2017-	Member of Executive Council	2017-
0066.HK	James Henry Lau	Non-Executive Director	2017-	Member of Executive Council	2017-
0069.HK	(Arthur) Li Kwok-cheung	Independent Non-Executive Director	2011-	Member of Executive Council	2002-2007; 2012-
0081.HK	(Jeffrey) Lam Kin-fung	Independent Non-Executive Director	2010-	Member of Executive Council; Member of Legislative Council	ExCo: 2012- LegCo: 2004-
0083.HK	Ronald Arculli	Non-Executive Director	2005-	Member of Executive Council	2005-2012
0095.HK	(Bernard) Charnwut Chan	Non-Executive Director	2005-	Member of Executive Council; Member of Legislative Council	ExCo: 2002-2012; 2017- LegCo: 1998-2008
0099.HK	(Eric) Li Ka-Cheung	Independent Non-Executive Director	1999-	Member of Legislative Council	2000-2004
0101.HK	Ronald Arculli	Independent Non-Executive Director	Present	Member of Executive Council	2005-2012
0123.HK	(Ambrose) Lau Hon-chuen	Independent Non-Executive Director	2004-	Member of Legislative Council	2000-2004
0131.HK	(Kenneth) Ting Woo-shou	Independent Non-Executive Director	2012-	Member of Legislative Council	2000-2004
0135.HK	(Jasper) Tsang Yok-sing	Independent Non-Executive Director	2019-	Member of Executive Council; Member of Legislative Council	ExCo: 2002-2012 LegCo: 2000-2016
0179.HK	(Joseph) Yam Chi-kwong	Independent Non-Executive Director	2010-	Member of Executive Council	2017-
0180.HK	(Kenneth) Ting Woo-shou	Executive Chairman	2012-	Member of Legislative Council	2000-2004
0181.HK	(Christopher) Cheung Wah-fung	Independent Non-Executive Director	2003-	Member of Legislative Council	2012-
0199.HK	(Abraham) Shek Lai-Him	Independent Non-Executive Vice Chairman	2010-	Member of Legislative Council	2000-
0207.HK	(Ambrose) Lau Hon-chuen	Independent Non-Executive Director	1995-	Member of Legislative Council	2000-2004
0230.HK	(Fanny) Law Fan Chiu-fun	Independent Non-Executive Director	2018-	Member of Executive Council	2012-
0236.HK	(David) Li Kwok-po	Independent Non-Executive Director	1991-	Member of Executive Council	2005-2012
0247.HK	Ronald Arculli	Non-Executive Director	2005-	Member of Executive Council	2005-2012
0259.HK	Tien Pei-chun	Independent Non-Executive Director	1997-	Member of Executive Council; Member of Legislative Council	ExCo: 2002-2005 LegCo: 2000-2008; 2012-2016
0270.HK	(David) Li Kwok-po	Independent Non-Executive Director	1998-	Member of Executive Council	2005-2012

0291.HK	(Bernard) Charnwut Chan	Independent Non-Executive Director	2006-	Member of Executive Council; Member of Legislative Council	ExCo: 2002-2012; 2017- LegCo: 1998-2008
0291.HK	(Eric) Li Ka-Cheung	Independent Non-Executive Director	2003-	Member of Legislative Council	2000-2004
0293.HK	(Bernard) Charnwut Chan	Non-Executive Independent Director	2018-	Member of Executive Council; Member of Legislative Council	ExCo: 2002-2012; 2017- LegCo: 1998-2008
0298.HK	(David) Chu Yu-lin	Independent Non-Executive Director	1997-	Member of Legislative Council	2000-2004
0303.HK	(Michael) Tien Puk-sun	Independent Non-Executive Director	2001-	Member of Legislative Council	2012-
0315.HK	(Eric) Li Ka-Cheung	Independent Non-Executive Director	1996-	Member of Legislative Council	2000-2004
0315.HK	Ng Leung-sing	Independent Non-Executive Director	1997-	Member of Legislative Council	2000-2004
0345.HK	(David) Li Kwok-po	Independent Non-Executive Director	1994-	Member of Executive Council	2005-2012
0367.HK	(David) Chu Yu-lin	Independent Non-Executive Director	2013-	Member of Legislative Council	2000-2004
0369.HK	(Jeffrey) Lam Kin-fung	Independent Non-Executive Director	2018-	Member of Executive Council; Member of Legislative Council	ExCo: 2012- LegCo: 2004-
0388.HK	(Laura) Cha Shih May-lung	Non-Executive Independent Director; Chairman	Director: 2006-12, Chairman: 2018-	Member of Executive Council	2002-
0393.HK	(Ambrose) Lau Hon-chuen	Independent Non-Executive Director	1997-	Member of Legislative Council	2000-2004
0406.HK	(Bernard) Charnwut Chan	Independent Non-Executive Director	2000-	Member of Executive Council; Member of Legislative Council	ExCo: 2002-2012; 2017- LegCo: 1998-2008
0440.HK	(Andrew) Leung Kwan-yuen	Independent Non-Executive Director	2017-	Member of Legislative Council	2004-
0480.HK	(Henry) Fan Hung Ling	Independent Non-Executive Director	2017-	Member of Executive Council	2005-2012
0480.HK	Ronald Arculli	Non-Executive Director	2005-	Member of Executive Council	2005-2012
0558.HK	Lui Ming-wah	Independent Non-Executive Director	2004-	Member of Legislative Council	2000-2008
0595.HK	Lui Ming-wah	Independent Non-Executive Director	1996-	Member of Legislative Council	2000-2008
0608.HK	(Felix) Chung Kwok-pan	Independent Non-Executive Director	2019-	Member of Legislative Council	2012-
0617.HK	(Abraham) Shek Lai-Him	Independent Non-Executive Director	2002-	Member of Legislative Council	2000-
0620.HK	(Fanny) Law Fan Chiu-fun	Independent Non-Executive Director	2015-	Member of Executive Council	2012-
0622.HK	(Gary) Chan Hak-kan	Independent Non-Executive Director	2017-	Member of Legislative Council	2008-
0659.HK	(Abraham) Shek Lai-Him	Independent Non-Executive Director	2004-	Member of Legislative Council	2000-
0659.HK	(Eric) Ma Siu-cheung	Chief Executive Officer	2019-	Member of Executive Council	2012-2017
0662.HK	(Bernard) Charnwut Chan	President, Executive Director		Member of Executive Council; Member of Legislative Council	ExCo: 2002-2012; 2017- LegCo: 1998-2008
0698.HK	(Christopher) Cheung Wah-fung	Independent Non-Executive Director	2004-	Member of Legislative Council	2012-
0762.HK	(Fanny) Law Fan Chiu-fun	Independent Non-Executive Director	2012-	Member of Executive Council	2012-
0817.HK	(Ambrose) Lau Hon-chuen	Independent Non-Executive Director	2007-	Member of Legislative Council	2000-2004
0822.HK	Lo Wai-kwok	Independent Non-Executive Director	2007-	Member of Legislative Council	2012-
0831.HK	(Sarah Mary) Liao Sau-tung	Independent Non-Executive Director	2014-	Member of Executive Council	2002-2007
0872.HK	Elizabeth Quat	Independent Non-Executive Director	2017-	Member of Legislative Council	2012-
0908.HK	(David) Chu Yu-lin	Independent Non-Executive Director	1998-	Member of Legislative Council	2000-2004
0981.HK	(Lawrence) Lau Juen-yee	Independent Non-Executive Director	2018-	Member of Executive Council	2007-2012
0988.HK	Choy So-yuk	Independent Non-Executive Director	2009-	Member of Legislative Council	2000-2008
1052.HK	(Ambrose) Lau Hon-chuen	Independent Non-Executive Director	1996-	Member of Legislative Council	2000-2004
1097.HK	(Jeffrey) Lam Kin-fung	Independent Non-Executive Director	2017-	Member of Executive Council; Member of Legislative Council	ExCo: 2012- LegCo: 2004-
1128.HK	(Jeffrey) Lam Kin-fung	Independent Non-Executive Director	2009-	Member of Executive Council; Member of Legislative Council	ExCo: 2012- LegCo: 2004-
1212.HK	(Abraham) Shek Lai-Him	Independent Non-Executive Director	2004-	Member of Legislative Council	2000-
1221.HK	Ronald Arculli	Non-Executive Director	2005-	Member of Executive Council	2005-2012

1270.HK	Chan Ka-keung	Independent Non-Executive Director	2018-	Member of Executive Council	2007-2017
1299.HK	Chow Chung-kong	Independent Non-Executive Chairman	2017-	Member of Executive Council	2017-
1313.HK	(Stephen) Ip Shu Kwan	Independent Non-Executive Director	2008-	Member of Executive Council	2002-2007
1367.HK	(Felix) Chung Kwok-pan	Independent Non-Executive Director	2014-	Member of Legislative Council	2012-
1660.HK	Ma Fung-kwok	Independent Non-Executive Director	2019-	Member of Legislative Council	2012-
1668.HK	(Andrew) Leung Kwan-yuen	Independent Non-Executive Director	2009-	Member of Legislative Council	2004-
1788.HK	Chan Ka-keung	Independent Non-Executive Director	2018-	Member of Executive Council	2007-2017
1929.HK	(Jeffrey) Lam Kin-fung	Independent Non-Executive Director	2011-	Member of Executive Council; Member of Legislative Council	ExCo: 2012- LegCo: 2004-
1962.HK	(Kenneth) Lau Ip-keung	Independent Non-Executive Director	2017-	Member of Executive Council; Member of Legislative Council	ExCo: 2017- LegCo: 2016-
1982.HK	(Fanny) Law Fan Chiu-fun	Independent Non-Executive Director	Present	Member of Executive Council	2012-
1997.HK	(Andrew) Leung Kwan-yuen	Independent Non-Executive Director	2018-	Member of Legislative Council	2004-
1997.HK	Yeoh Eng Kiong	Independent Non-Executive Director	2017-	Member of Executive Council	2002-2005
2007.HK	(Abraham) Shek Lai-Him	Independent Non-Executive Director	2006-	Member of Legislative Council	2000-
2083.HK	(Arthur) Li Kwok-cheung	Independent Non-Executive Director	2011-	Member of Executive Council	2002-2007; 2012-
2383.HK	(Anna) Wu Hung-yuk	Independent Non-Executive Director	2003-	Member of Executive Council	2012-2017
2638.HK	Ronald Arculli	Non-Executive Director	2013-	Member of Executive Council	2005-2012
2689.HK	Ng Leung-sing	Independent Non-Executive Director	2013-	Member of Legislative Council	2000-2004
3800.HK	(Raymond) Ho Chung-tai	Independent Non-Executive Director	2007-	Member of Legislative Council	2000-2012
3836.HK	(Edward) Lau Kwok-fan	Independent Non-Executive Director	2019-	Member of Legislative Council	2016-
3903.HK	Ng Leung-sing	Independent Non-Executive Director	2013-	Member of Legislative Council	2000-2004
8109.HK	(Christopher) Chung Shu-kun	Independent Non-Executive Director	2015-	Member of Legislative Council	2012-2016
8372.HK	Ng Leung-sing	Independent Non-Executive Director	2018-	Member of Legislative Council	2000-2004

This list includes all politicians that are involved in firms which we have identified as connected. *Ticker* refers to the official HKEX ticker of the company in which the connected person is involved. *Role in Company* specifies what their role in the company is, and *Tenure in Company* specifies the period during which the person has had this role. *Political Position* and *Tenure in Political Position* represents the political position the person has possessed and during which period, respectively.

B.3 Daily Protest Data

Table 9: Data Points for Daily Protests

Date	Category	Source
9-Jun-19	Millions	Hong Kong Free Press
10-Jun-19	Missing	
11-Jun-19	Missing	
12-Jun-19	Tens of thousands	Hong Kong Free Press
13-Jun-19	Missing	
14-Jun-19	Thousands	Hong Kong Free Press
15-Jun-19	Missing	
16-Jun-19	Millions	South China Morning Post
17-Jun-19	Missing	
18-Jun-19	Missing	
19-Jun-19	Missing	
20-Jun-19	Missing	
21-Jun-19	Thousands	South China Morning Post
22-Jun-19	Missing	
23-Jun-19	Missing	
24-Jun-19	Hundreds	South China Morning Post
25-Jun-19	Missing	
26-Jun-19	Thousands	Hong Kong Free Press
27-Jun-19	Hundreds	Hong Kong Free Press
28-Jun-19	Hundreds	Hong Kong Free Press
29-Jun-19	Missing	
30-Jun-19	Missing	
1-Jul-19	Hundreds of thousands	Hong Kong Free Press
2-Jul-19	Missing	
3-Jul-19	Missing	
4-Jul-19	Missing	
5-Jul-19	Thousands	Radio Television Hong Kong
6-Jul-19	Tens of thousands	Hong Kong Free Press
7-Jul-19	Hundreds of thousands	The Guardian
8-Jul-19	Missing	
9-Jul-19	Missing	
10-Jul-19	Missing	
11-Jul-19	Missing	
12-Jul-19	Missing	
13-Jul-19	Tens of thousands	South China Morning Post
14-Jul-19	Tens of thousands	South China Morning Post
15-Jul-19	Missing	

16-Jul-19	Missing	
17-Jul-19	Thousands	Radio Television Hong Kong
18-Jul-19	Missing	
19-Jul-19	Missing	
20-Jul-19	Missing	
21-Jul-19	Hundreds of thousands	BBC
22-Jul-19	Missing	
23-Jul-19	Missing	
24-Jul-19	Missing	
25-Jul-19	Missing	
26-Jul-19	Tens of thousands	South China Morning Post
27-Jul-19	Thousands	Hong Kong Free Press
28-Jul-19	Tens of thousands	Wall Street Journal
29-Jul-19	Missing	
30-Jul-19	Missing	
31-Jul-19	Missing	
1-Aug-19	Hundreds	South China Morning Post
2-Aug-19	Tens of thousands	NY Times
3-Aug-19	Thousands	Hong Kong Free Press
4-Aug-19	Hundreds of thousands	South China Morning Post
5-Aug-19	Hundreds of thousands	Radio Television Hong Kong
6-Aug-19	Missing	
7-Aug-19	Thousands	The Guardian
8-Aug-19	Thousands	South China Morning Post
9-Aug-19	Thousands	NY Times
10-Aug-19	Hundreds	Radio Television Hong Kong
11-Aug-19	Missing	
12-Aug-19	Thousands	Hong Kong Free Press
13-Aug-19	Missing	
14-Aug-19	Missing	
15-Aug-19	Missing	
16-Aug-19	Tens of thousands	Hong Kong Free Press
17-Aug-19	Tens of thousands	South China Morning Post
18-Aug-19	Millions	Radio Television Hong Kong
19-Aug-19	Missing	
20-Aug-19	Missing	
21-Aug-19	Hundreds	Hong Kong Free Press
22-Aug-19	Hundreds	South China Morning Post
23-Aug-19	Hundreds of thousands	South China Morning Post
24-Aug-19	Thousands	Hong Kong Free Press
25-Aug-19	Tens of thousands	NY Times
26-Aug-19	Missing	

27-Aug-19	Missing	
28-Aug-19	Thousands	Hong Kong Free Press
29-Aug-19	Missing	
30-Aug-19	Missing	
31-Aug-19	Tens of thousands	BBC
1-Sep-19	Hundreds	NY Times
2-Sep-19	Tens of thousands	Radio Television Hong Kong
3-Sep-19	Missing	
4-Sep-19	Missing	
5-Sep-19	Missing	
6-Sep-19	Missing	
7-Sep-19	Missing	
8-Sep-19	Thousands	Time
9-Sep-19	Missing	
10-Sep-19	Missing	
11-Sep-19	Thousands	The Guardian
12-Sep-19	Hundreds	South China Morning Post
13-Sep-19	Thousands	South China Morning Post
14-Sep-19	Missing	
15-Sep-19	Thousands	Radio Television Hong Kong
16-Sep-19	Missing	
17-Sep-19	Missing	
18-Sep-19	Missing	
19-Sep-19	Missing	
20-Sep-19	Missing	
21-Sep-19	Hundreds	Radio Television Hong Kong
22-Sep-19	Thousands	South China Morning Post
23-Sep-19	Missing	
24-Sep-19	Missing	
25-Sep-19	Missing	
26-Sep-19	Missing	
27-Sep-19	Tens of thousands	South China Morning Post
28-Sep-19	Tens of thousands	NY Times
29-Sep-19	Thousands	Hong Kong Free Press
30-Sep-19	Missing	
1-Oct-19	Tens of thousands	The Guardian
2-Oct-19	Hundreds	South China Morning Post
3-Oct-19	Hundreds	South China Morning Post
4-Oct-19	Thousands	The Guardian
5-Oct-19	Thousands	Radio Television Hong Kong
6-Oct-19	Tens of thousands	Washington Post
7-Oct-19	Missing	

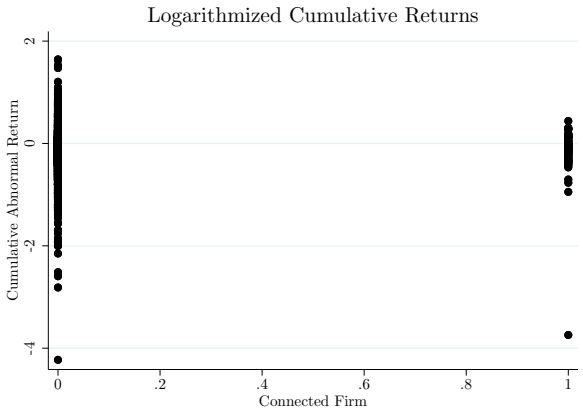
8-Oct-19	Missing	
9-Oct-19	Hundreds	South China Morning Post
10-Oct-19	Missing	
11-Oct-19	Missing	
12-Oct-19	Thousands	Hong Kong Free Press
13-Oct-19	Missing	
14-Oct-19	Tens of thousands	Hong Kong Free Press
15-Oct-19	Missing	
16-Oct-19	Missing	
17-Oct-19	Missing	
18-Oct-19	Hundreds	Hong Kong Free Press
19-Oct-19	Missing	
20-Oct-19	Hundreds of thousands	Hong Kong Free Press
21-Oct-19	Missing	
22-Oct-19	Missing	
23-Oct-19	Missing	
24-Oct-19	Hundreds	Washington Post
25-Oct-19	Hundreds	Radio Television Hong Kong
26-Oct-19	Hundreds	NY Times
27-Oct-19	Missing	
28-Oct-19	Hundreds	Hong Kong Free Press
29-Oct-19	Missing	
30-Oct-19	Missing	
31-Oct-19	Missing	
1-Nov-19	Missing	
2-Nov-19	Thousands	Radio Television Hong Kong
3-Nov-19	Missing	
4-Nov-19	Missing	
5-Nov-19	Hundreds	Hong Kong Free Press
6-Nov-19	Missing	
7-Nov-19	Missing	
8-Nov-19	Hundreds	The Guardian
9-Nov-19	Thousands	South China Morning Post
10-Nov-19	Thousands	South China Morning Post
11-Nov-19	Thousands	Hong Kong Free Press
12-Nov-19	Thousands	CNN
13-Nov-19	Thousands	South China Morning Post
14-Nov-19	Thousands	Hong Kong Free Press
15-Nov-19	Thousands	Hong Kong Free Press
16-Nov-19	Thousands	South China Morning Post
17-Nov-19	Missing	
18-Nov-19	Missing	

19-Nov-19	Missing	
20-Nov-19	Missing	
21-Nov-19	Hundreds	Radio Television Hong Kong
22-Nov-19	Missing	

This table presents all individual days in our research period and the intensity of protests for those days. *Source* indicates which news outlet we have obtained the figure from.

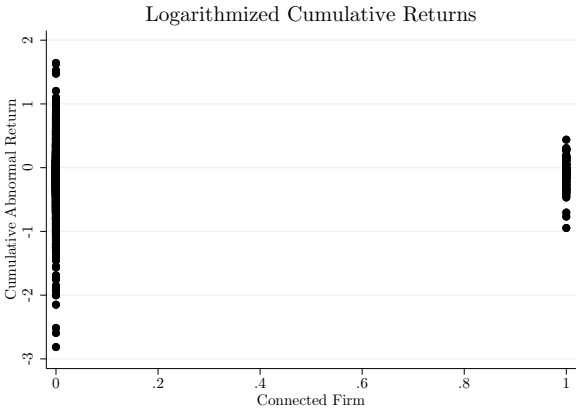
B.4 Dataset With and Without Extreme Outliers

Figure 1: With Outliers



This figure visualizes the distribution of logarithmized cumulative returns for connected and non-connected firms.

Figure 2: Without Outliers



This figure visualizes the distribution of logarithmized cumulative returns for connected and non-connected firms after dropping our two outliers as specified in Section 4.3.

B.5 Categorization of Protestor Data

Table 10: Categorization of Protestor Data

Raw Data	Category
Missing	Missing
Hundreds	Moderate
Thousands	Moderate
Tens of Thousands	Intense
Hundreds of Thousands	Intense
Millions	Very Intense

This table presents our categorization of protest data as outlined Section 5.2.2. The purpose of this categorization is to obtain a better estimate of the influence of protest intensity on stock market valuations. In our paper, it is not the specific number of protesters that is central to our analysis, but rather the general intensity of the protests.

B.6 P-values of Table 5

Table 11: P-Values

	(1)	(2)	(3)
P-Value	0.005	0.019	0.027

This table shows p-values for γ in our first regression seen in Table 5 as reported by Stata.

B.7 Correlation Matrix

Table 12: Correlation Matrix

	Connected Firm	Market Cap	Leverage
Connected Firm	1.0000		
Market Cap	0.1166	1.0000	
Leverage	0.0249	-0.0037	1.0000

This table presents the correlation matrix for our variables. *Connected Firm* refers to politically connected firms as defined in Section 4.1. *Market Cap* is the market capitalization of the firm in millions of Hong Kong Dollars and *Leverage* is the ratio of total debt to total assets.

B.8 Asset Value as Control for Size

Table 13: Regression on Specification 1 Using Asset Value

	Cumulative Abnormal Return
Connected Firm	0.0640**
	(0.0261)
Leverage	-0.0389
	(0.0306)
Asset Value	6.05e-05**
	(2.97e-05)
Observations	2,070
Adjusted R-squared	0.005
Sector Fixed Effects	Yes

This table presents the empirical results for our first specification concerning cumulative abnormal returns, using asset value instead of market capitalization as a control for size. *Connected Firm* refers to politically connected firms as defined in Section 4.1. *Leverage* is the ratio of total debt to total assets and *Asset Value* is the firm's total value of assets in Hong Kong Dollars. *Sector Fixed Effects* treats the industry classification of firms as a factor variable. Robust standard errors are specified in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

B.9 Test for Autocorrelation

Table 14: Wooldridge Test for Autocorrelation in Panel Data

H_0: No First-Order Autocorrelation	
F(1, 2069)	1.051
Prob > F	0.3054

This table shows the results of a Wooldridge's test for autocorrelation in our panel data. We can conclude that there is no clear evidence that autocorrelation exists since $Prob > F$ is not significant.